SARA
Xywav™ – Narcolepsy
Trial Participant

Jazz Pharmaceuticals®

Jazz Pharmaceuticals plc
Proxy Statement
2020 Annual Report

DEAR FELLOW SHAREHOLDERS,

On behalf of Jazz and our Board of Directors, I hope you and your families have been able to stay healthy and safe in these extraordinary times. The COVID-19 pandemic has created a high degree of uncertainty in our everyday lives and the financial markets. At the same time, we have witnessed extraordinary acts of selflessness and community service from healthcare workers, first responders and front-line workers, for which we are all grateful. We have also seen the best of our industry's ability to contribute immense value to society, urgently mobilizing resources and working collaboratively to develop vaccines and treatments with a previously unimaginable combination of efficiency and scientific rigor.

As we look forward to the resumption of something close to normalcy as vaccines continue to roll out, I'm pleased to report that our comprehensive COVID-19 response and mitigation efforts in 2020 were effective. We found new ways to work remotely while maintaining a collaborative, patient-centric approach to our business, and I am proud of my colleagues' collective focus on execution and delivering new therapies to patients.

Our portfolio of innovative therapies that transform the lives of patients has continued to enable growth and diversification of our revenues. In 2019, we announced an ambitious goal: launch five new products within three years. We successfully launched three products in the U.S. and international markets in 2020, and are well positioned to launch two more in 2021: Xywav™ in idiopathic hypersomnia (IH) and JZP458 in acute lymphocytic leukemia (ALL) and lymphoblastic lymphoma (LBL). In parallel to advancing these important new therapies, we acquired GW Pharmaceuticals in 2021, creating a global neuroscience leader and further accelerating our future growth.

2020 ACCOMPLISHMENTS CREATED SIGNIFICANT MOMENTUM

Looking back at 2020, we were extremely successful in four critical areas: executing commercial launches; delivering positive clinical results; effectively deploying capital to strengthen the prospects of achieving both our short and long-term goals through strategic and capital-efficient corporate development; and delivering strong financial performance.

- **We launched important new treatment options for patients.** In November 2020, we launched Xywav™ (calcium, magnesium, potassium and sodium oxybates) for the treatment of cataplexy and excessive daytime sleepiness in patients 7 years of age and older with narcolepsy; to date, the launch has exceeded our expectations. Zepzelca™ (lurbinectedin) was successfully launched in the U.S. in July 2020 for the treatment of adult patients with metastatic small cell lung cancer (SCLC) with disease progression on or after platinum-based chemotherapy. Outside of the United States, we launched Sunosi® (solriamfetol) in Europe in May 2020 to improve wakefulness and reduce excessive daytime sleepiness (EDS) in adult patients with narcolepsy (with or without cataplexy) and with obstructive sleep apnea (OSA), whose EDS has not been satisfactorily treated by primary OSA therapy, such as continuous positive airway pressure (CPAP).
- **We delivered strong clinical results and submitted regulatory filings.** Positive topline results from the *Xywav* Phase 3 study in IH were announced in October 2020, setting the stage for a potential FDA approval in 2021. We initiated our JZP458 Biologics License Application to FDA under Real-Time Oncology Review in December 2020 for treatment of acute ALL/LBL in adult and pediatric patients who have developed hypersensitivity or silent inactivation to E. coli-derived asparaginase. Both *Xywav* in IH and JZP458 are compounds we have taken from concept to commercial readiness.
- **We continued the expansion of our innovative neuroscience and oncology pipeline through internal and external collaborations,** with a focus on highly differentiated products that are durable and can be effectively commercialized. We completed multiple corporate development deals with innovative early- to late-stage product candidates, operating with exceptional speed to complete our licensing agreement for U.S. commercial rights to *Zepzelca* and successfully launch that product within six months. We also obtained development and commercial rights to JZP150, and are poised to initiate a Phase 2 clinical trial in post-traumatic stress disorder later this year.
- **We delivered strong financial results in 2020** with total revenues increasing 9% over the previous year to a record $2.36 billion. Revenue growth was driven by robust double-digit growth in our oncology portfolio and high single-digit growth in our neuroscience portfolio.[1]

POSITIONED FOR CONTINUED GROWTH

With our significant achievements in 2020, we are well-positioned for continued success with several key events targeted for 2021.

- **We are preparing for two product launches in 2021.** In 2020, we launched important new treatment options for patients, including *Xywav* and *Zepzelca* in the U.S. and *Sunosi* in Europe. In 2021, we are positioned for a potential launch of *Xywav* in IH in the fourth quarter of this year; there are currently no FDA-approved

[1] Reconciliations of GAAP net income to non-GAAP adjusted net income can be found in the executive compensation section of the enclosed Proxy Statement.

therapies to treat IH. We also expect to launch JZP458 in ALL/LBL, potentially meeting the urgent need for a high-quality recombinant asparaginase with reliable supply.

- **We are investing in multiple clinical trials across our neurology and oncology pipeline.** In neurology, we plan to initiate Phase 2 trials for JZP385 in essential tremor and for JZP150 in post-traumatic stress syndrome. In oncology, we expect to initiate a Phase 3 clinical trial for *Zepzelca* in combination with immunotherapy in first-line SCLC.

ACQUISTION TO CREATE GLOBAL NEUROSCIENCE LEADER

We completed our acquisition of GW Pharmaceuticals in the second quarter of 2021. We are excited to bring together two companies with a shared culture built around a common purpose: innovating to transform the lives of patients and their families.

Most immediately, we are focused on the continued growth of Epidiolex® (cannabidiol), a transformative treatment for childhood-onset epilepsy that provides a critical therapeutic option for refractory seizures. *Epidiolex* is the first and only FDA-approved plant-derived cannabinoid therapy, with blockbuster potential. *Epidiolex* exceeded $500 million in net sales in its second full year of commercial availability in the U.S., and we believe it can benefit many more patients in the U.S. as well as in Europe, where *Epidiolex* is earlier in its launch.

GW is the global leader in cannabinoid science and medicine, and with the addition of this leading cannabinoid development platform, we have expanded our robust pipeline to include clinical development programs in oncology and across neuroscience in sleep, movement disorders and psychiatry.

In addition to the innovative therapies we can deliver for patients, this transaction is financially compelling for Jazz shareholders, as we expect the acquisition to accelerate our top-line revenue growth and to be EPS accretive in the first full calendar year of combined operations, and substantially accretive thereafter. This transaction also accelerates our revenue diversification goal to deliver 65% of our total 2022 revenues from products launched or acquired since 2019.

In closing, thank you for your continued belief in our team and consistent support of our mission to transform the lives of patients. I would also like to thank all of our employees at Jazz for their tireless efforts throughout this turbulent year, and welcome our new team members joining us from GW. I'm extremely proud of the way our company has not only persevered through the past year, but emerged stronger and more focused than ever on how our work can impact patients. We are looking forward to the integration of the GW team in the coming months, and working to deliver value to our shareholders, our employees, and most importantly, the patients we serve.

Sincerely,

BRUCE C. COZADD
Chairman and Chief Executive Officer

CATCHING UP WITH OSCAR

Xywav patient

We met Oscar in our 2014 annual report. For years he had struggled with staying awake and felt that he was living in a constant blurry and hazy fog. After years of misdiagnoses, his sleep specialist diagnosed his narcolepsy and Oscar began taking Xyrem® (sodium oxybate) to address his excessive daytime sleepiness (EDS) and cataplexy. With proper diagnosis and treatment, Oscar found that he was able to stay awake for the things that are important to him, like spending time with family and running his business.

"I think everyone's goal is to live their best life — and today I'm living mine."

— Oscar

Oscar leads an active lifestyle, enjoys the outdoors and exercises regularly. He also has a family history of heart disease and high blood pressure. Oscar recently met with his doctor and has transitioned to *Xywav*. *Xywav* contains the same amount of oxybate as *Xyrem*, but has 92% less sodium in each nightly dose. Sodium intake is a modifiable risk factor for cardiovascular disease, and Oscar felt *Xywav* was the best option for him since he expects to continue to take oxybate therapy to manage his EDS and cataplexy.

Since there is no cure for narcolepsy, long-term management for symptoms, such as excessive daytime sleepiness (EDS) and cataplexy, may be needed.

EDS is the uncontrollable need to sleep during the day. Everyone with narcolepsy has EDS. Cataplexy is a common symptom of narcolepsy and can be described as when your muscles suddenly become weak or go limp when you feel a strong emotion. About 70% of people with narcolepsy are believed to have cataplexy.

In July 2020, the U.S. Food and Drug Administration (FDA) approved Xywav™ (calcium, magnesium, potassium and sodium oxybates), a prescription medicine for treating cataplexy and/or EDS in people with narcolepsy ages 7 years and older. The patient story shared in this communication depicts an individual patient's response to our medicine and is not representative of all patient responses.

ROBUST, INNOVATIVE R&D PIPELINE

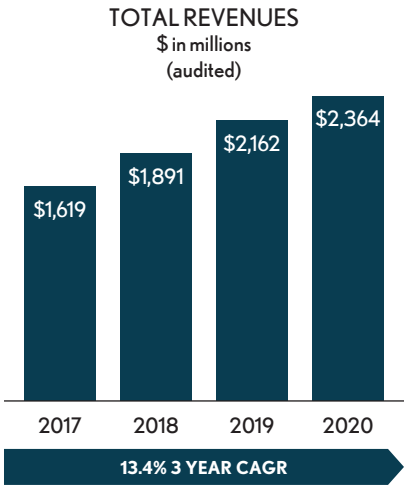
PRE-CLINICAL	PHASE 1	PHASE 2	PHASE 3	REGULATORY
Undisclosed targets Neuroscience	**JZP324** Oxybate extended-release formulation	**JZP385**[3] Essential tremor (Phase 2b)	**Vyxeos** • AML or HR-MDS >60 yrs (AML18)[4] • AML or HR-MDS >18 yrs (AML19)[4] • Newly diagnosed adults with standard- and HR-AML (AMLSG)[4] • Newly diagnosed <22 yrs with AML (COG)[4]	**JZP258 (Xywav)** Idiopathic hypersomnia
CombiPlex Exploratory activities	**Vyxeos** Low Intensity Dosing for higher risk MDS[2]	**JZP150**[3] PTSD		**JZP458** (recombinant *Erwinia* asparaginase) ALL/LBL (pivotal Phase 2/3)
JZP341 (Long-acting *Erwinia* asparaginase)[1] ALL/other hematological malignancies	**Vyxeos + other approved therapies** • R/R AML or HMA Failure MDS[2] • First-line, fit AML (Phase 1b) • Low Intensity Therapy for first-line, unfit AML (Phase 1b)	**Vyxeos** • HR-MDS (EMSCO)[4] • Newly diagnosed older adults with HR-AML[3,4]	**Nabiximols** MS spasticity	
Pan-RAF Inhibitor Program Raf & Ras mutant tumors	**Additional Cannabinoids** Neonatal hypoxic-ischemic encephalopathy	**Vyxeos + venetoclax** *de novo* or R/R AML[2]	**Nabiximols**[3] Spinal cord injury spasticity	
Undisclosed targets Ras/Raf/MAP kinase pathway[1]	**Additional Cannabinoids** Neuropsychiatry targets	**Nabiximols**[3] PTSD		
Exosome targets (NRAS and 3 others)[1] Hematological malignancies/ solid tumors		**Additional Cannabinoids** Schizophrenia		
Defibrotide Exploratory activities		**Additional Cannabinoids** Autism spectrum disorders		
Undisclosed targets Cannabinoids				

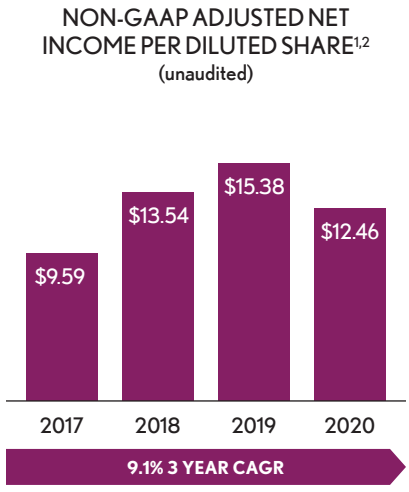
Neuroscience Hematology Cannabinoids

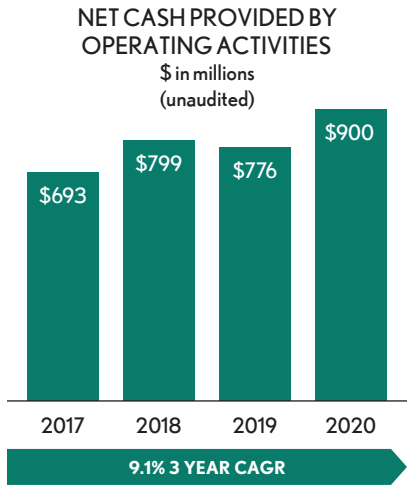
[1] Partnered collaboration. [2] Jazz & MD Anderson Cancer Center collaboration study. [3] Planned. [4] Cooperative group study.

ALL = Acute Lymphoblastic Leukemia, AML = Acute Myeloid Leukemia, AMLSG = AML Study Group, COG = Children's Oncology Group, EMSCO = European Myelodysplastic Syndromes Cooperative Group, HMA = Hypomethylating Agent, HR-AML = High-Risk AML, HR-MDS = High-Risk MDS, LBL = Lymphoblastic Lymphoma, MDS = Myelodysplastic Syndrome, MS = Multiple Sclerosis, PTSD = Post-Traumatic Stress Disorder, R/R = Relapsed/Refractory

STRONG FINANCIAL EXECUTION







[1] Reconciliations of GAAP net income to non-GAAP adjusted net income can be found in the executive compensation section of the enclosed Proxy Statement.
[2] Commencing in 2020, the company no longer excludes upfront and milestone payments from the company's non-GAAP adjusted net income, its line item components and non-GAAP adjusted EPS. The impact of this change to the company's 2020 non-GAAP adjusted net income and non-GAAP adjusted EPS was approximately $205 million or $3.67 per diluted share, respectively, primarily related to the post-tax impact of the upfront payments made to PharmaMar and SpringWorks in 2020. For purposes of comparability, non-GAAP adjusted financial measures for 2017 to 2019 have been updated to reflect this change.

CAGR = Compound Annual Growth Rate

Jazz Pharmaceuticals®

NOTICE OF 2021 ANNUAL GENERAL MEETING OF SHAREHOLDERS

TO BE HELD ON JULY 29, 2021

Proxy

Dear Shareholder:

The 2021 annual general meeting of shareholders (the "annual meeting") of Jazz Pharmaceuticals plc, a public limited company formed under the laws of Ireland (the "company"), will be held on Thursday, July 29, 2021, at 3:00 p.m. local time at our corporate headquarters located at Fifth Floor, Waterloo Exchange, Waterloo Road, Dublin 4, Ireland, for the following purposes:

1. To elect by separate resolutions each of the four nominees for director named in the accompanying proxy statement (the "proxy statement") to hold office until the 2024 annual meeting of shareholders (Proposal 1).
2. To ratify, on a non-binding advisory basis, the appointment of KPMG, Dublin, or KPMG, as the independent auditors of the company for the fiscal year ending December 31, 2021 and to authorize, in a binding vote, the board of directors, acting through the audit committee, to determine the independent auditors' remuneration (Proposal 2).
3. To approve, on a non-binding advisory basis, the compensation of the company's named executive officers, or NEOs, as disclosed in the accompanying proxy statement (Proposal 3).
4. To renew the board of directors' existing authority under Irish law to allot and issue ordinary shares (Proposal 4).
5. To renew the board of directors' existing authority under Irish law to allot and issue ordinary shares for cash without first offering those ordinary shares to existing shareholders pursuant to the statutory pre-emption right that would otherwise apply (Proposal 5).
6. To approve any motion to adjourn the annual meeting, or any adjournments thereof, to another time and place to solicit additional proxies if there are insufficient votes at the time of the annual meeting to approve Proposal 5 (Proposal 6).

To conduct any other business properly brought before the annual meeting.

Proposals 1, 2, 3, 4 and 6 are ordinary resolutions, requiring the affirmative vote of a majority of the votes cast (in person or by proxy) at the annual meeting. Proposal 5 is a special resolution, requiring the approval of not less than 75% of the votes cast (in person or by proxy) at the annual meeting.

In addition to the above proposals, the annual meeting will also receive and consider the company's Irish statutory financial statements for the fiscal year ended December 31, 2020 and the reports of the directors and auditors thereon. There is no requirement under Irish law that the Irish statutory financial statements be approved by the shareholders, and no such approval will be sought at the annual meeting. Under the company's Memorandum and Articles of Association (our "articles"), and the Irish Companies Act 2014 (the "2014 Act"), Proposals 1 and 2 are deemed to be ordinary business, and Proposals 3, 4, 5 and 6 are deemed to be special business.

The record date for the annual meeting is June 2, 2021. Only shareholders of record at the close of business on that date may vote at the annual meeting or any adjournment or postponement thereof.

A shareholder entitled to attend and vote at the annual meeting is entitled to appoint one or more proxies to attend, speak and vote instead of him or her at the annual meeting, using the proxy card provided (or the form of proxy contained in section 184 of the 2014 Act) or using an electronic proxy card by telephone or via the internet in the manner described in this proxy statement. A proxy need not be a shareholder of record.

Whether or not you expect to attend the meeting, please vote as soon as possible. You may vote your shares:

Over the Telephone
1-800-690-6903

Via the Internet
www.proxyvote.com

By Mail
Complete, sign and return proxy card

In Person
Attend Annual Meeting

If you received a proxy card or voting instruction card by mail, you may submit your proxy card or voting instruction card mailing your proxy card or voting instruction card in the envelope provided. Proxy cards must be received by July 28, 2021. Electronic proxy cards submitted via the internet or by telephone must be received by 11:59 p.m., U.S. Eastern Time, on July 28, 2021. It may not be possible to count proxy cards received after the relevant time towards voting. Proxy cards received will be forwarded to the company's registered office electronically before commencement of the annual meeting to comply with Irish law. Even if you have voted by proxy, you may still vote in person if you attend the meeting. Please note, however, that if the record holder of your ordinary shares is a broker, bank or other agent, and you wish to vote at the meeting, you must obtain a proxy issued in your name from that record holder.

Important Notice Regarding the Availability of Proxy Materials for the annual meeting of shareholders to be held on July 29, 2021, at 3:00 p.m. local time at our corporate headquarters located at Fifth Floor, Waterloo Exchange, Waterloo Road, Dublin 4, Ireland.

The proxy statement, our letter to shareholders and our 2020 Annual Report on Form 10-K are available at https://materials.proxyvote.com/G50871.

By order of the board of directors,

/s/ Aislinn Doody
Aislinn Doody, Company Secretary
Dublin, Ireland
June 11, 2021

Potential Impacts of the COVID-19 Pandemic on the Annual General Meeting

In light of the ongoing COVID-19 pandemic, the company would like to emphasize that we consider the health of our shareholders, employees and other attendees a top priority. We are monitoring guidance issued by appropriate governmental health agencies, including the Irish Health Service Executive, or the HSE, the Irish government, the U.S. Center for Disease Control and Prevention and the World Health Organization, collectively, the Health Authorities, and we have implemented, and will continue to implement the measures advised by the relevant Health Authorities to minimize the spread of COVID-19. Information on such measures and on COVID-19 generally is available on the HSE's website at https://www.hse.ie/eng/services/news/newsfeatures/covid19-updates/.

The annual meeting will be held in accordance with HSE and relevant Health Authority guidance.

Should we determine that alternative arrangements are necessitated due to public health recommendations regarding containment of COVID-19, which may include a change in date or time of the meeting, a change in venue or format of the meeting we will announce our decision by press release and/or filing with the Securities Exchange Commission as additional soliciting materials and also post information on the investor relations page of the company's website found at https://investor.jazzpharma.com/news. We encourage shareholders to keep up-to-date with, and follow the guidance from the Government of Ireland and the Department of Health (of Ireland) (as appropriate), as circumstances may change at short notice. Due to this uncertainty, shareholders are strongly encouraged to vote their shares by proxy in advance at the annual meeting.

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Index of Frequently Requested Information

PROXY OVERVIEW

This overview highlights certain information contained elsewhere in this proxy statement and does not contain all of the information that you should consider. You should read the entire proxy statement carefully before voting. For more complete information regarding our business and 2020 performance, please review our Annual Report on Form 10-K for the year ended December 31, 2020 that we filed with the Securities and Exchange Commission, or SEC, on February 23, 2021, which we refer to throughout this proxy statement as the 2020 Annual Report on Form 10-K.

In this proxy statement, unless otherwise indicated or the context otherwise requires, all references to "Jazz Pharmaceuticals," "the company," "we," "us" and "our" refer to Jazz Pharmaceuticals plc and its consolidated subsidiaries, except when the context makes clear that the time period being referenced is prior to January 18, 2012, in which case such terms are references to Jazz Pharmaceuticals, Inc. and its consolidated subsidiaries. On January 18, 2012, the businesses of Jazz Pharmaceuticals, Inc. and Azur Pharma Public Limited Company, or Azur Pharma, were combined in a merger transaction, or the Azur Merger, in connection with which Azur Pharma was renamed Jazz Pharmaceuticals plc, and we became the parent company of and successor to Jazz Pharmaceuticals, Inc., with Jazz Pharmaceuticals, Inc. becoming our wholly owned subsidiary.

Meeting and Voting Information

Time and Date:

3:00 p.m., local time on
Thursday, July 29, 2021

Place:

Our corporate headquarters
Fifth Floor, Waterloo Exchange
Waterloo Road Dublin 4, Ireland

In light of the COVID-19 pandemic, we strongly recommend that you vote your shares by proxy in advance of the meeting. Whether or not you expect to attend the meeting, please vote as soon as possible. Please see "Questions and Answers About These Proxy Materials and Voting—How do I vote?" beginning on page 108 below. Please also see "Questions and Answers About These Proxy Materials and Voting—What are the potential impacts of the COVID-19 pandemic on the annual meeting?" beginning on page 106 below.

Business Overview

We are an innovative global biopharmaceutical company dedicated to developing and commercializing life-changing medicines that transform the lives of patients with serious diseases—often with limited or no therapeutic options. We have a diverse portfolio of marketed medicines and novel product candidates, from early- to late-stage development, across key therapeutic areas. Our focus is in neuroscience, including sleep, epilepsy and movement disorders, and in oncology, including hematologic malignancies and solid tumors. We actively explore new options for patients, including novel compounds, small molecules and biologics, and through cannabinoid science and innovative delivery technologies.

Our lead marketed products are:

- **Xyrem® (sodium oxybate) oral solution**, a product approved by the U.S. Food and Drug Administration, or FDA, and marketed in the U.S. for the treatment of both cataplexy and excessive daytime sleepiness, or EDS, in narcolepsy patients seven years of age and older;
- **Xywav™ (calcium, magnesium, potassium, and sodium oxybates) oral solution**, a product that contains 92% less sodium than Xyrem, approved by FDA and launched in the U.S. in November 2020 for the treatment of cataplexy or EDS in narcolepsy patients seven years of age and older;
- **Epidiolex®**, a pharmaceutical formulation comprising highly purified plant-derived cannabidiol, or CBD, approved in the U.S. and also in Europe, where it is marketed as Epidyolex, for the treatment of seizures associated with Lennox-Gastaut syndrome (LGS), Dravet syndrome and Tuberous Sclerosis Complex (TSC), for patients one year of age and older;
- **Sunosi® (solriamfetol)**, a product approved by FDA and marketed in the U.S. and in Europe to improve wakefulness in adult patients with EDS associated with narcolepsy or obstructive sleep apnea;
- **Zepzelca™ (lurbinectedin)**, a product approved by FDA in June 2020 and launched in the U.S. in July 2020 for the treatment of adult patients with metastatic small cell lung cancer, or SCLC, with disease progression on or after platinum-based chemotherapy;
- **Vyxeos® (daunorubicin and cytarabine) liposome for injection**, a product approved in the U.S. and in Europe (where it is marketed as Vyxeos® liposomal 44 mg/100 mg powder for concentrate for solution for infusion) for the treatment of adults with newly-diagnosed therapy-related acute myeloid leukemia, or AML, or AML with myelodysplasia-related changes;
- **Defitelio® (defibrotide sodium)**, a product approved in the U.S. for the treatment of adult and pediatric patients with hepatic veno-occlusive disease, or VOD, also known as sinusoidal obstruction syndrome, with renal or pulmonary dysfunction following hematopoietic stem cell transplantation, or HSCT, and in Europe (where it is marketed as Defitelio® (defibrotide)) for the treatment of severe VOD in adults and children after undergoing HSCT therapy; and
- **Erwinaze® (asparaginase Erwinia chrysanthemi)**, a treatment approved in the U.S. and in certain markets in Europe (where it is marketed as Erwinase®) for patients with acute lymphoblastic leukemia, or ALL, who have developed hypersensitivity to E. coli-derived asparaginase.

Our strategy to create sustainable shareholder value is focused on:

- Strong commercial execution to drive diversified revenue growth and address unmet medical needs of our patients across our product portfolio;
- Expanding and advancing our pipeline through internal and external patient-centric innovation to achieve a valuable product portfolio of durable, highly differentiated programs;
- Continuing to build a flexible, efficient, and productive development engine for targeted therapeutic conditions to identify and progress early- and mid-stage assets; and
- Investing in an efficient, scalable operating model and differentiated capabilities to enable growth; and unlock further value through indication expansion and global markets.

In 2020, consistent with our strategy, we continued to focus on research and development activities within our neuroscience and oncology therapeutic areas, such as our expansion into solid tumors, and exploring and investing in adjacent therapeutic areas that could further diversify our portfolio. In addition, in May 2021, we completed the acquisition of GW Pharmaceuticals plc, or GW. We view the acquisition, or the GW Acquisition, as consistent with our overall business and capital allocation strategy to expand our neuroscience portfolio and drive substantial value for our shareholders. We achieved these accomplishments despite the global impact of the COVID-19 pandemic. In response to the COVID-19 pandemic, we developed a comprehensive response strategy including establishing cross-functional response teams and implementing business continuity plans to manage the impacts of the evolving effects of the COVID-19 pandemic on our employees, patients and our business. We support broad public health strategies designed to prevent the spread of COVID-19 and are focused on the health and welfare of our employees.

Information About Our Board of Directors

Director Nominees and Continuing Directors

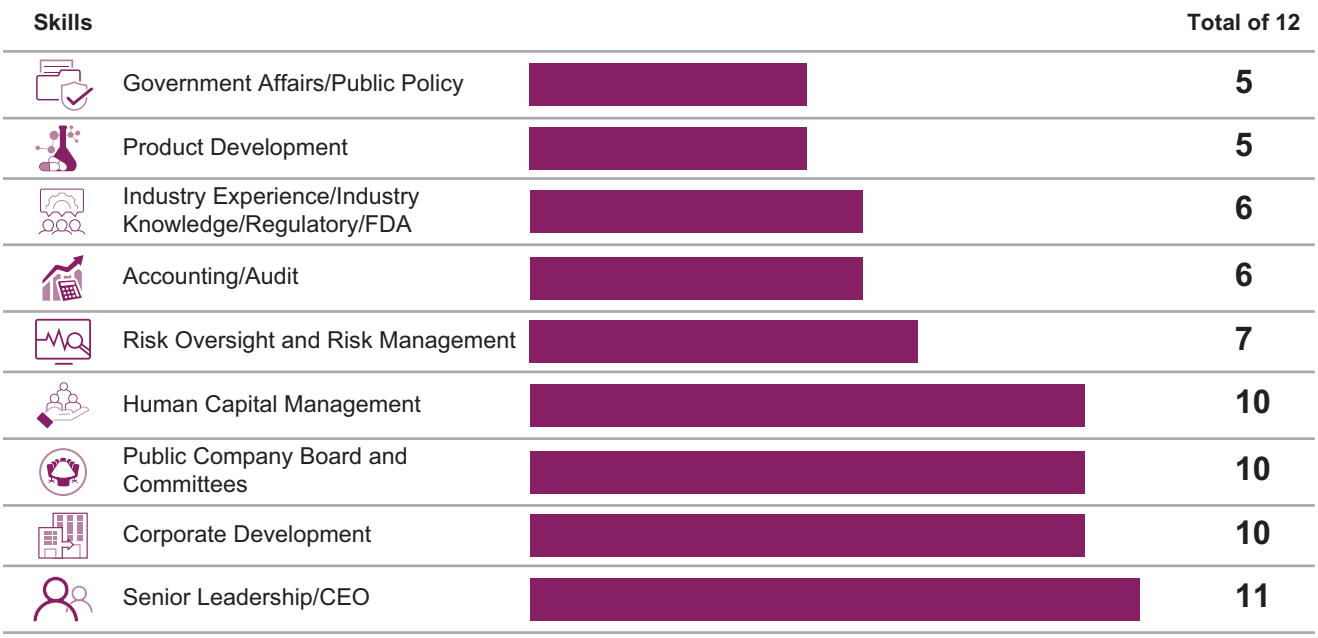
The following table provides summary information about each director nominee and each director whose term of office will continue after the annual meeting, in each case as of June 1, 2021. See pages 19 to 22 and 85 to 91 for more information.

Name	Age	Director Since	Principal Position	Independent	Other Current Public Boards
2021 Director Nominees					
Peter Gray	66	2013	Chairman, Teckro, Inc. and Director, Abzena	Yes	0
Kenneth W. O'Keefe	54	2004(1)	Managing Director, Beecken Petty O'Keefe & Company	Yes	0
Mark D. Smith, M.D.	69	2020	Professor, University of California, San Francisco and Director, Teladoc Health, Inc. and Phreesia, Inc.	Yes	2
Catherine A. Sohn, Pharm.D.	68	2012	Chairperson, BioEclipse Therapeutics, Inc. and Director, Axcella Health Inc., Landec Corporation and Rubius Therapeutics	Yes	3
Continuing Directors					
Jennifer E. Cook	55	2020	Director, BridgeBio Pharma, Inc. and Denali Therapeutics Inc.	Yes	2
Bruce C. Cozadd	57	2003(1)	Chairman and Chief Executive Officer, Jazz Pharmaceuticals plc	No	0
Patrick G. Enright	59	2009(1)	Managing Director, Longitude Capital	Yes	1
Heather Ann McSharry	59	2013	Director, International Airlines Group, S.A.	Yes	1
Seamus Mulligan	60	2012	Director, Jazz Pharmaceuticals plc	Yes	0
Anne O'Riordan	53	2019	Group Director of Digital, Jardine Matheson Limited	Yes	0
Norbert G. Riedel, Ph.D.	63	2013	Chief Executive Officer, Aptinyx Inc.	Yes	3
Rick E Winningham	61	2010(1)	Chairman and Chief Executive Officer, Theravance Biopharma, Inc.	Yes	1

(1) Includes service on the board of directors of Jazz Pharmaceuticals, Inc., our predecessor.

Director Skills, Experience and Diversity

We examine the experience and expertise of our board as a whole to ensure alignment between the abilities and contributions of our board and our strategic priorities and long-term plans, emphasizing, among other things, expertise in global and U.S. sales and marketing, in product development, in financial management and in corporate development transactions. All of our directors exhibit high integrity, collegiality, innovative thinking, sound business judgment and a knowledge of corporate governance requirements and practices. The following charts show the key skills, experience, and attributes that our director nominees and continuing directors bring to our boardroom:



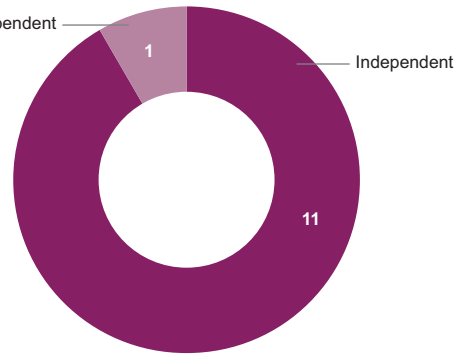
Our board is substantially independent and has a mix of relatively newer and longer-tenured directors. The charts below show board makeup by various characteristics with respect to our director nominees and continuing directors:

Residency

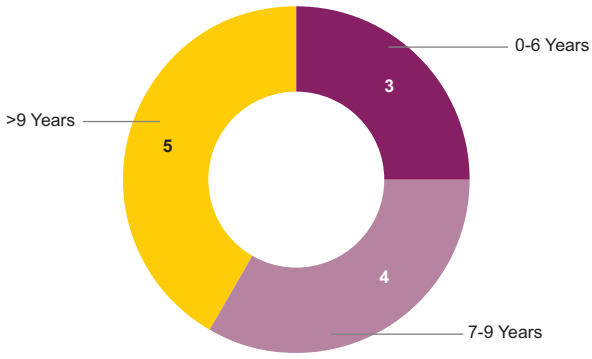
Gender

4 of 12
Directors are Women

Director Independence



Tenure



Shareholder and Other Stakeholder Engagement

A priority for our board of directors is soliciting and listening to the views of our shareholders on a variety of topics, including our business and growth strategy, corporate governance practices, executive compensation matters, and various other environmental, social and governance (ESG) matters. Discussions with our shareholders have been productive and informative and have provided valuable feedback to our board of directors to help ensure that our board's decisions align with shareholder objectives. The graphic under the section entitled "*Executive Compensation—Compensation Discussion and Analysis—How We* Determine *Executive Compensation—2020 Advisory Vote on Executive Compensation and Shareholder Engagement"* on page 46 below describes our typical shareholder outreach and engagement cycle.

Following our 2020 annual meeting, we reached out to shareholders who collectively held approximately 47% of our then-outstanding shares to request meetings, and held meetings by phone with each shareholder who accepted our request for engagement.

We have taken a number of significant and responsive actions over the past several years to incorporate feedback received from shareholders, as highlighted in the following table.

Topic	What We Heard	What we did
Board Refreshment	Shareholders continued to express interest in board refreshment and the role it plays in increasing board diversity.	• We enhanced our demographic board diversity in both 2019 and 2020. Specifically, in 2020, we underwent a board refreshment program and candidate search for new directors. As part of that search process, the nominating and corporate governance committee asked the search firm it engaged to provide, and then considered, a set of candidates that included both underrepresented people of color and different genders. In late 2020, we added two additional diverse directors.

Proxy Overview (continued)

Topic	What We Heard	What we did
		• Two of our longer-tenured directors are not standing for re-election at this annual meeting. As such, we expect that, immediately following the annual meeting, our board will consist of twelve members, four of whom are women, representing 33% of the board.
Compensation	While shareholders provided positive feedback regarding our pay-for-performance alignment, we heard a strong preference that our long-term incentive program include performance-based equity awards. Shareholders also expressed their desire for our annual performance bonus plan to have an explicit cap on payouts to avoid the potential of excessive payouts not tied to performance and to mitigate certain risks inherent in incentive plans. Shareholders have raised concerns that our burn rate is higher than some of our peers. Shareholders disfavor the "evergreen provision" in our 2011 Equity Incentive Plan.	In response to shareholder feedback: • Starting in 2021, approximately 50% of each executive officer's target equity compensation will be in the form of performance-based equity awards, or PSUs; • Starting in 2021, stock options will be eliminated, and grants will be 100% restricted stock units, or RSUs, and PSUs; and • We will not seek to extend the evergreen provision in the 2011 Equity Incentive Plan, nor adopt a new one, following the provision's expiration in 2022. • Additionally, initial equity grants to new directors were eliminated and instead, new directors will receive a pro-rated annual grant based on their months of service during the board year We also recently adopted a policy for recoupment of incentive compensation, or a clawback policy, which is designed to mitigate risks generally associated with incentive compensation and allow us to recover any erroneously earned compensation.
ESG	ESG continues to be a priority for our shareholders and stakeholders.	In 2020, we established the Corporate Sustainability and Social Impact function within the company and brought together a cross-functional team of leaders in the organization to guide the development of our ESG strategy and social impact initiatives. A wide range of departments is involved in our ESG strategy and work, including corporate affairs, corporate strategy, supply chain management, research and development, commercial, patient support services, human resources and legal, among others. Additionally, we recently published our first SASB mapping report, covering information in the following areas: • Safety of clinical trial participants; • Access to medicines; • Affordability and pricing; • Drug safety; • Counterfeit drugs; • Ethical marketing; • Employee recruitment, development and retention; • Supply chain management; and • Business ethics.

We also continue to evaluate feedback received on other topics, including our classified board structure, setting climate change targets, and reporting on workforce diversity.

ESG Highlights

We view ESG factors as long-term value drivers for the company. We take a focused approach to ESG that leverages Jazz's unique capabilities and expertise, striving to identify and manage the most meaningful opportunities based on their likelihood of positively impacting society and driving shareholder value.

If human beings needed a reminder as to how core our health—and the medicines that protect and enhance it—are to economic and political health and stability, as well as to human happiness—the events of the last 18 months provided that reminder.

As a company that brings life-changing medicines to people who truly need them, we believe that these events also highlighted that our greatest societal-related contributions to the world come directly from our core product development, treatments and support of our patients.

Commitment to Purpose and Good Governance

Jazz Pharmaceuticals is dedicated to developing and commercializing life-changing medicines that transform the lives of patients with serious diseases—often with limited or no therapeutic options.

Our management team is well known for having founded the company with a clear vision that creating a positive culture creates the foundation for ongoing financial and ESG sustainability. The practices we describe here reflect the evolution of that belief and its embedding within our core values.

We believe the caliber of our governance starts with the caliber of our board of directors, and we are proud to have a steadily refreshed, diverse and highly capable board of involved directors. These directors help oversee how we operate as well as how well we operate, including with committee and full-board oversight of the ESG issues summarized in this section.

Specifically, the nominating and corporate governance committee has oversight responsibility over our ESG strategy and policies and is regularly briefed by management on matters related to ESG. In 2020, we established the Corporate Sustainability and Social Impact function within the company and brought together a cross-functional team of leaders in the organization to guide the development of our ESG strategy and social impact initiatives. A wide range of departments is involved in our ESG strategy and work, including corporate affairs, corporate strategy, supply chain management, research and development, commercial, patient support services, human resources and legal, among others.

In 2020, we published our first Sustainability Accounting Standards Board (SASB) Mapping Report, which is available on our website.[1] We continue to evaluate the use of other non-financial reporting frameworks, including the Global Reporting Initiative and the Task Force on Climate-related Financial Disclosures. We invite shareholder input as we work to enhance how our ESG practices contribute to our financial, environmental and social sustainability.

[1] While we believe this information may be of interest to our shareholders, such information, together with any other information appearing on or connected to our website, shall not be deemed incorporated by reference into, and does not form part of, this proxy statement.

COVID-19 Response

Especially during this time of uncertainty, Jazz remains dedicated to its purpose and focused approach to ESG. In response to the COVID-19 pandemic, that has meant taking both a short-term and a long-term view of ESG risks and opportunities, selected aspects of which are discussed below.

Leadership and Oversight
We have established a COVID-19 response team comprised of senior leadership that is particularly focused on addressing the impacts to our employees, our sites, our patients, our customers and our suppliers. Our board of directors is receiving regular updates from our senior management and is involved in strategy decisions and oversight of evolving business continuity plans.

Employee Health, Safety and Well-being
We support broad public health strategies designed to prevent the spread of COVID-19 and are focused on the health and welfare of our employees. In accordance with guidance issued by the Centers for Disease Control and Prevention, the World Health Organization and local authorities, in March 2020, our global workforce, including field-based teams, transitioned to working remotely. Our global organization has mobilized to enable our employees to accomplish our most critical goals in new ways, leveraging positivity, innovation and prioritization of resources to overcome new obstacles. We have rolled out new technologies and collaboration tools to enable our employees to engage with each other and also with healthcare providers through digital platforms and other remote access activities to continue to support and educate them as they care for patients. For our employees, we have implemented processes and resources to support them in the event an employee receives a positive COVID-19 diagnosis. We are now implementing plans related to reopening our sites and enabling our employees to return to work in our global offices, the field, our lab and our manufacturing facilities, which plans will take into account applicable public health authority and local government guidelines and which are designed to ensure employee and patient safety.

Product Supply to Our Patients and Access to Medicines
We are executing on a continuity plan in response to the pandemic that is designed to enable us to deliver on our mission to provide essential medicines to patients around the world. We are working closely with our third-party manufacturers, distributors and other trusted partners to manage supply chain activities and mitigate potential disruptions to our product supply as a result of COVID-19.

In responding to this pandemic, we are prioritizing patient access to our medications, including through our JazzCares program, which is designed to help patients access medications and services they need. The rapid spread of COVID-19 has caused a significant burden on health systems globally and has highlighted the need for companies to evaluate existing therapies to assess if they can be utilized beyond their current indications to treat COVID-19 as well as consider developing new therapies.

Support of Our Local Communities
We are supporting local communities and patient-focused organizations in COVID-19 relief efforts including through corporate donations to charitable organizations providing food and medical relief to our communities in which we operate in Italy, Philadelphia and the San Francisco Bay Area, and other localities where the needs related to the impact of COVID-19 are greatest such as the New York metro area and Spain.

Culture and Human Capital Management

Our "One Jazz" Culture

We strive to excel in three things: put patients first, be a great place to work, and live our values of integrity, collaboration, passion, innovation and pursuit of excellence. We are committed to creating a company where the work culture reflects these goals.

We make a point each year to recognize, through our "Jazz Master" award, individuals who have been leaders in modeling and contributing to our culture by living our mission and demonstrating Jazz's values throughout their career at our company. We also have programs to recognize individuals who have gone above and beyond expected performance to achieve outstanding results that have had a significant impact on business or patients.

Diversity and Inclusion

We strive to create a workplace culture that supports a diverse, multi-cultural workforce, treats individuals fairly, and provides an inclusive environment where all employees are empowered to contribute and succeed. We continue to evolve our policies, practices and programs that help us demonstrate to our employees how much we value them and that enable them to give their best to each other, our patients and our shareholders and stakeholders. Recently, we have taken the following steps:

- Established goals for our DEI practices, including targets to increase gender, racial and ethnic leadership diversity;
- Created a DEI Inclusion Delegation of employees to embed DEI values in everything we do;
- Supported our employee resource teams (Jazz ConcERTos); and
- Continued to enhance board and leadership-level diversity. Specifically:
    - After giving effect to the announced departure of two of our directors, on the date of our annual meeting, 50% of our board of directors will be diverse in terms of gender, ethnicity and sexual orientation; and
    - Women comprise approximately 40% of our management leadership team, which we refer to as our executive committee. Our executive committee is also diverse in terms of race, age, ethnicity and national origin.

Employee Engagement, Health and Well-Being

Jazz has a strong employee value proposition anchored in our shared commitment to our purpose to innovate to transform the lives of patients. We believe employee engagement and the power of our employee voices is foundational to strong performance. We have transparent and regular communication channels with our employees including:

- Annual and more frequent pulse surveys;
- Regular communication messages from executive leadership;
- Top leadership forums;
- All employee meetings;
- Engagement surveys; and
- Community Beat teams who support local employee and community engagement activities.

We strive to create a culture of health and well-being throughout the organization by offering a diverse and customizable set of programs focusing on employee experience, self-care, work-life balance, flexibility and early intervention. In addition to traditional employee benefits, Jazz supports employees and their families through access to a suite of innovative programs that are designed to enhance their physical, financial, emotional and social well-being, including:

- In response to COVID, launching our "4Cs" employee support framework (care, connection, continuity and consciousness), enabling our people to live our values and further our mission;
- Providing an array of resources to support remote working;
- Increasing work schedule and leave program flexibility; and
- Expanding employee assistance and mindfulness programs.

Talent Development

We understand that empowering people to find new and better ways of doing things, to gain new experiences and to development new capabilities can also support our growth and achievements as a company. The exciting opportunities within our business provide rich and ample learning opportunities and experiences for career growth. Our talent strategy focuses on attracting the best talent, recognizing and rewarding the performance of our employees as defined by both *what* they accomplished and *how* they accomplished it, and continually developing our talent through new experiences and learning opportunities. Specifically, we:

- Recently launched a new performance management system to support our culture of learning, feedback, and continual growth;
- Encourage all employees to have an individual development plan;
- Invest in manager and leadership development; and
- Offer tuition reimbursement in our major markets aimed at growth and career development.

Patients and Community

How did we enhance and enrich the lives of our patients, and communities this past year? We have and continue to:

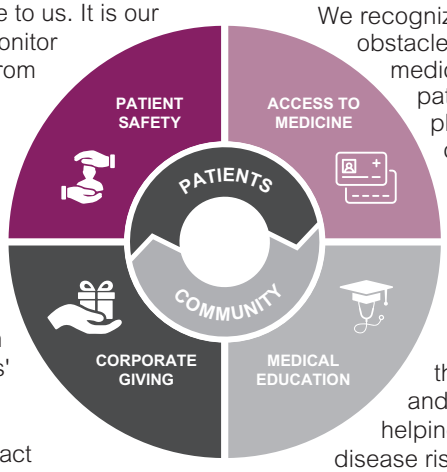
- Provide and develop new treatments for conditions in the neuroscience and oncology therapeutic areas—areas that are core to human health and wellbeing. This includes investment in our exceptional pipeline which includes potential treatments at every development stage from pre-clinical, through phase 1-3 trials and the regulatory process;
- Maintain our distribution and pipeline capabilities to protect patients despite the disruptions created by the COVID-19 pandemic;
- Adhere to our global safety and compliance standards, both for our drugs and for our employees and communities;
- Offer access to medicine programs to help patients who face financial obstacles to accessing needed treatments;
- Support a wide and varied corporate giving program to support our patients, employees and communities; and
- Offer extensive medical education programs for patients, caregivers, medical professionals and others. Specifically, in 2020, Jazz:
  - Launched a U.S. patient education program developed in consultation with the Myelodysplastic Syndromes (MDS) Foundation, Inc. and the Cancer Support Community focused on empowering, educating and providing resources to people affected by secondary acute myeloid leukemia (sAML) and MDS;
  - Collaborated with the American Heart Association to educate and empower patients to live healthier lives and improve their well-being; as part of the collaboration, the campaign aimed to raise awareness of the connection between sleep disorders and cardiovascular risk, and further explored the topic via health care provider-focused podcasts and patient-focused news articles and blogs; and
  - Co-created a campaign with the Hypersomnia Foundation to heighten the level of awareness of idiopathic hypersomnia; this campaign took a multi-media approach at building community and empowering patients to recognize their symptoms and have impactful dialogue with health care providers and family members on their condition.

Patient Safety:

Patient safety is of paramount importance to us. It is our ethical and regulatory responsibility to monitor the safety of the medicines we develop from their preclinical stage through clinical testing and prescribing.

Access to Medicine:

We recognize that many patients today face financial obstacles that keep them from accessing important medications. We are committed to improving patient access through unique patient and physician programs and ongoing collaboration with patients, physicians and advocacy groups. as well as access to investigational medicines through expanded/early accessprograms when available and appropriate.



Corporate Giving:

We view our global corporate giving as an opportunity for us to help improve patients' lives by addressing unmet needs, demonstrating our commitment to the communities we serve and making an impact through meaningful support to organizations, initiatives and causes that reflect our mission, values and strategic focus.

Medical Education:

We provide disease-focused resources that support healthcare providers, patients and caregivers along their journey by helping to increase the understanding of disease risk factors, signs and symptoms, diagnosis and other support services. As part of our ongoing efforts to improve patient outcomes, we support medical education through our grant-making program.

Environmental Stewardship

We seek to operate our manufacturing facilities in an environmentally responsible way to protect our people, our business, our environment and the local communities in which we operate. In light of the potential impact of our business on the environment, we have adopted a number of internal environmental policies and management systems designed to manage our operations in compliance with applicable laws, directives and regulations on environmental protection and in support of environmental sustainability and local biodiversity. Our environmental policies and management systems include procedures for assessing compliance with applicable environmental laws and regulations and reporting incidents of non-compliance to applicable governmental authorities. For example, we have environmental policies governing both of our manufacturing facilities in Athlone, Ireland and Villa Guardia (Como), Italy, which demonstrate our commitment to environmental sustainability and require us to minimize resource use (e.g., energy and water) and waste generation, optimize the use of raw materials, and undertake continuous improvement in environmental performance, with an emphasis on pollution prevention.

Summary of Shareholder Voting Matters and Board Recommendations

For the reasons set forth below and in the rest of this proxy statement, our board of directors recommends that you vote your shares "FOR" each of the nominees named below for director to hold office until the 2024 annual meeting of shareholders and "FOR" each of the other proposals.

Proposal 1 — Election of Directors

The board of directors recommends a vote "FOR" each of the named nominees.

Vote required to elect each nominee to hold office until the 2024 annual meeting of shareholders: Affirmative vote of a majority of the votes cast on his or her election.

For more information, see Proposal 1 starting on page 85.

We are asking our shareholders to vote, by separate resolutions, on the election of each of Peter Gray, Kenneth W. O'Keefe, Mark D. Smith, M.D. and Catherine A. Sohn, Pharm.D. to hold office until the 2024 annual meeting of shareholders. Detailed information about each nominee's background and experience can be found beginning on page 86.

Each of the nominees for director was nominated for election by the board of directors upon the recommendation of our nominating and corporate governance committee. Our board of directors believes that each nominee has the specific experience, qualifications, attributes and skills to serve as a member of the board of directors and has demonstrated the ability to devote sufficient time and attention to board duties and to otherwise fulfill the responsibilities required of directors.

Proposal 2 — Ratify, on a Non-Binding Advisory Basis, the Appointment of Independent Auditors and Authorize, in a Binding Vote, the Board of Directors, Acting Through the Audit Committee, to Determine the Independent Auditors' Remuneration

The board of directors recommends a vote "FOR" this proposal.

Vote required for approval: Affirmative vote of a majority of the votes cast on the proposal.

For more information, see Proposal 2 starting on page 92.

Under Irish law, KPMG will be deemed to be reappointed as our independent auditors for the financial year ending December 31, 2021, without needing a shareholder vote at the annual meeting. However, our shareholders are being asked to ratify KPMG's appointment on a non-binding advisory basis because we value our shareholders' views on the company's independent auditors. The board of directors and the audit committee intend to consider the results of this vote in making determinations in the future regarding the appointment of the company's independent auditors.

Our shareholders are also being asked to authorize the board of directors, acting through the audit committee, to determine KPMG's remuneration. This authorization is required by Irish law.

Less than 7% of the total fees that KPMG billed us for services last year were for services other than audit, audit-related and tax compliance services.

Proposal 3 — Non-Binding Advisory Vote on Executive Compensation

The board of directors recommends a vote "FOR" this proposal.

Vote required for approval: Affirmative vote of a majority of the votes cast on the proposal.

For more information, see Proposal 3 starting on page 94.

We are asking our shareholders for advisory approval of our NEOs' compensation. This non-binding advisory vote is commonly referred to as a "say-on-pay" vote. Our executive compensation program is aligned with our business strategy and priorities and encourages executive officers to work for meaningful shareholder returns consistent with our pay-for-performance philosophy. Our executive compensation program focuses on *total compensation*, combining short- and long-term components, cash and equity, and fixed and variable payments, in the proportions that we believe are the most appropriate to incentivize and reward our executive officers for achieving our corporate goals while minimizing incentives for excessive risk taking or unethical conduct. Our annual bonus awards are not earned unless pre-determined levels of performance are achieved against annual corporate objectives approved by our board of directors at the beginning of the year. Likewise, our stock option awards will not provide realizable value and our restricted stock unit, or RSU, awards will not provide increased value unless there is an increase in the value of our shares, which benefits all shareholders. We also have executive share ownership guidelines to further support our ownership culture and align the interests of executive officers and shareholders. Our 2020 advisory say-on-pay proposal was approved by approximately 88% of total votes cast.

Proposal 4 — Renew Director's Authority to Issue Shares

The board of directors recommends a vote "FOR" this proposal.

Vote required for approval: Affirmative vote of a majority of the votes cast on the proposal.

For more information, see:

- **Background to Proposals 4 and 5 on page 96; and**
- **Proposal 4 starting on page 102.**

Prior to casting your vote on Proposal 4, we strongly urge you to read both the background discussion of Proposals 4 and 5 beginning on page 96 of this proxy statement and the discussion under Proposal 4 beginning on page 102.

The directors of an Irish public limited company must have specific authority from shareholders to issue shares (including rights to subscribe for or otherwise acquire any shares)—even shares which are part of the company's authorized but unissued share capital. Currently, our directors are authorized to issue new ordinary shares without further shareholder approval up to a maximum of our authorized but unissued ordinary share capital. This authority has been in place since the Azur Merger in January 2012 and was most recently approved by our public shareholders in 2016 with over 80% support. Under Irish law, this authority can be granted for a maximum period of five years, at which point it lapses unless renewed by our shareholders. The current share allotment and issuance authority is due to expire on August 4, 2021.

We are asking for your approval to renew our existing authority to issue up to the amount of shares that are already within our authorized share capital for an additional five years. We are not asking you to approve an increase to our authorized share capital. We are and will continue to be subject to the shareholder approval and other requirements of the Nasdaq Stock Market LLC, or Nasdaq, and the U.S. Securities and Exchange Commission, or SEC, with respect to share issuances, and our board of directors will also continue to focus on and satisfy its fiduciary duties to our shareholders with respect to share issuances. This renewal will simply keep us on an equal footing with our peer companies who are incorporated and listed in the U.S. and will best position us to continue to execute on our growth strategy.

The renewal of our share issuance authorities is fundamental to the way we intend to advance our business, grow and diversify our revenues, and increase shareholder value. Our growth strategy depends in part on our ability to identify, acquire, in-license and/or develop additional products or product candidates with the goal of growing and diversifying our revenues. Our management and board of directors rely on having the flexibility that the renewal of our share issuance authorities would provide to quickly take advantage of strategic opportunities, including potential acquisitions and other capital-intensive transactions that we believe would increase shareholder value. Many of these opportunities are highly competitive, with multiple parties often offering comparable or even the same economics. If we do not receive the required shareholder approval to renew the directors' authority to issue shares, we would be required to obtain shareholder approval prior to issuing any shares in connection with new strategic opportunities after August 4, 2021, even if we would not otherwise be required to obtain shareholder approval under Nasdaq rules. ***This limitation on our ability to issue shares could put us at a distinct disadvantage vis-à-vis many of our peers in competing for acquisitions and similar transactions and might make it difficult for us to complete such transactions in furtherance of our growth strategy, thus potentially limiting our ability to deploy capital to meet strategic goals that are in the best interests of our shareholders.***

Proposal 5 — Renew Directors' Authority to Issue Shares for Cash Without First Offering Shares to Existing Shareholders

The board of directors recommends a vote "FOR" this proposal.

Vote required for approval: Affirmative vote of 75% of the votes cast on the proposal.

For more information, see:

- **Background to Proposals 4 and 5 on page 96; and**
- **Proposal 5 on page 103.**

Prior to casting your vote on Proposal 5, we strongly urge you to read both the background discussion of Proposals 4 and 5 beginning on page 96 of this proxy statement and the discussion under Proposal 5 beginning on page 103.

In general, unless otherwise authorized by shareholders, before an Irish public limited company can issue shares for cash (including rights to subscribe for or otherwise acquire any shares) to any new shareholders, it must first offer the shares or rights to existing shareholders of the company pro-rata to their existing shareholdings. Currently, our directors are authorized to issue new shares for cash, up to a maximum of our authorized but unissued ordinary share capital, without first offering them to existing shareholders, thereby opting out of the statutory pre-emption rights provision. This pre-emption opt-out authority has been in place since the Azur Merger in January 2012 and was most recently approved by our public shareholders in 2016 with over 80% support. Under Irish law, this authority can be granted for a maximum period of five years, at which point it will lapse unless renewed by our shareholders. The current pre-emption opt-out authority is due to expire on August 4, 2021.

We are asking for your approval to renew our existing pre-emption opt-out authority for an additional five years. We are and will continue to be subject to the shareholder approval and other requirements of the Nasdaq and the SEC with respect to share issuances, and our board of directors will also continue to focus on and satisfy its fiduciary duties to our shareholders with respect to share issuances. This renewal will simply keep us on an equal footing with our peer companies who are incorporated and listed in the U.S. and will best position us to continue to execute on our growth strategy. In this regard, companies who are incorporated and publicly-traded in the U.S. generally do not grant all existing shareholders pre-emptive rights on new issuances of shares.

As is the case with Proposal 4, the renewal of our current authority is fundamental to the way we intend to advance our business, grow and diversify our revenues, and increase shareholder value. Our growth strategy depends in part on our ability to identify, acquire, in-license and/or develop additional products or product candidates with the goal of growing and diversifying our revenues. Our management and board of directors rely on having the flexibility that the renewal of our share issuance authorities would provide to quickly take advantage of strategic opportunities, including potential acquisitions and other capital-intensive transactions that we believe would increase shareholder value. Many of these opportunities are highly competitive, with multiple parties often offering comparable or even the same economics. If we do not receive the required affirmative vote of 75% of the votes cast to approve Proposal 5, shares that we would issue for cash in connection with new strategic opportunities after August 4, 2021 would have to first be offered to existing shareholders in costly and time-consuming pro-rata rights offerings. ***This limitation on our ability to issue shares for cash could put us at a distinct disadvantage vis-à-vis many of our peers in competing for acquisitions and similar transactions, would considerably reduce the speed at which we could complete capital-raising activities undertaken in furtherance of our growth strategy, and would increase our costs and otherwise might make it difficult for us to complete such transactions in furtherance of our growth strategy, thus potentially limiting our ability to deploy capital to meet strategic goals that are in the best interests of our shareholders.***

The approval of this Proposal 5 is conditional on the approval of Proposal 4 because Irish law requires that a general authority to issue shares be in place before a pre-emption opt-out authority can be granted. Proposal 5 will therefore not be passed unless Proposal 4 is also approved.

Proposal 6 — Adjournment Proposal

The board of directors recommends a vote "FOR" this proposal.

Vote required for approval: Affirmative vote of a majority of the votes cast on the proposal.

For more information, see Proposal 6 starting on page 105.

We are asking our shareholders to vote on a proposal to approve any motion to adjourn the annual meeting, or any adjournments thereof, to another time and place to solicit additional proxies if there are insufficient votes at the time of the annual meeting to approve Proposal 5.

Under Irish law, Proposal 5 is a special resolution, which requires no less than 75% of the votes of shareholders cast (in person or by proxy) at a general meeting to be voted "FOR" the proposal in order to be passed. Given the high vote threshold associated with Proposal 5, we are seeking your authority to adjourn the meeting to solicit additional proxies if there are insufficient votes at the time of the annual meeting to approve Proposal 5.

PROXY STATEMENT

FOR THE 2021 ANNUAL GENERAL MEETING OF SHAREHOLDERS TO BE HELD ON JULY 29, 2021

GENERAL

Purpose of this Proxy Statement and Other General Information

Our board of directors is soliciting proxies for use at our 2021 annual general meeting of shareholders, or the annual meeting. This proxy statement contains important information for you to consider when deciding how to vote on the matters brought before the annual meeting. Please read it carefully. The Notice of Internet Availability of Proxy Materials and our proxy materials, which include this proxy statement, our annual letter to shareholders and our 2020 Annual Report on Form 10-K, are first being mailed to shareholders on or about June 15, 2021. Our proxy materials are also available online at https://materials.proxyvote.com/G50871. The specific proposals to be considered and acted upon at the annual meeting are summarized in the accompanying Notice of 2021 Annual General Meeting of Shareholders. Each proposal is described in more detail in this proxy statement.

This solicitation is made on behalf of our board of directors and all solicitation expenses, including costs of preparing, assembling and mailing proxy materials and notices, will be borne by us. In addition to these proxy materials, our directors and employees may also solicit proxies in person, by telephone, or by other means of communication. Directors and employees will not be paid any additional compensation for soliciting proxies. We may also reimburse brokerage firms, banks and other agents for the cost of forwarding proxy materials to beneficial owners. In addition, we have retained Alliance Advisors, a proxy solicitation firm, to assist in the solicitation of proxies for a fee of approximately $40,000 plus reimbursement of expenses.

Our board of directors has set the close of business on June 2, 2021 as the record date for the annual meeting. Shareholders of record who owned our ordinary shares on that date are entitled to vote at and attend the annual meeting. Each ordinary share is entitled to one vote. There were 60,975,068 of our ordinary shares outstanding and entitled to vote on the record date.

CORPORATE GOVERNANCE AND BOARD MATTERS

Overview

We are committed to exercising good corporate governance practices. In furtherance of this commitment, we regularly monitor developments in the area of corporate governance and review our processes, policies and procedures in light of such developments. Key information regarding our corporate governance initiatives can be found on our website, *www.jazzpharmaceuticals.com*, including our Corporate Governance Guidelines, Code of Conduct, and the charters for our audit, compensation and nominating and corporate governance committees. We believe that our strong corporate governance policies and practices, including the substantial percentage of independent directors on our board of directors and the robust duties of our Lead Independent Director, empower our independent directors to effectively oversee our management—including the performance of our Chief Executive Officer—and provide an effective and appropriately balanced board governance structure. In addition, we believe that our directors are all actively and constructively engaged in the exercise of their duties and responsibilities, with each independent director serving on at least one board committee and engaging with management between board meetings to remain well-informed of our strategy and our business.

Independence of the Board of Directors

As required under the Nasdaq listing standards, a majority of the members of a listed company's board of directors must qualify as "independent," as affirmatively determined by the board of directors. Our board of directors consults with counsel to ensure that the board's determinations are consistent with relevant securities and other laws and regulations regarding the definition of "independent," including those set forth in the applicable Nasdaq listing standards, as in effect from time to time. Consistent with these considerations, after review of all relevant transactions or relationships between each director, or any of his or her family members, and our company, our senior management and our independent registered public accounting firm, the board of directors affirmatively determined that all of our current directors are independent directors within the meaning of the applicable Nasdaq listing standards, except that Mr. Cozadd, our Chairman and Chief Executive Officer, is not independent by virtue of his employment with our company. In addition, our board of directors has determined that each member of the audit committee, compensation committee and nominating and corporate governance committee meets the applicable Nasdaq and SEC rules and regulations regarding "independence" and that each member is free of any relationship that would impair his or her individual exercise of independent judgment with regard to the company.

Board Leadership Structure and Risk Oversight

Mr. Cozadd has served as our Chairman and Chief Executive Officer since the closing of the Azur Merger in January 2012. He co-founded Jazz Pharmaceuticals, Inc. in 2003 and served as its Chairman and Chief Executive Officer since April 2009 and, prior to that, as Executive Chairman.

The board of directors believes that the Chief Executive Officer is best suited to serve as our Chairman because he is the member of the board of directors who is most familiar with our business as a whole, and the most capable of identifying and bringing to the attention of the full board of directors the strategic priorities and key issues facing the company. The board of directors also believes that having Mr. Cozadd in particular in a combined Chairman/Chief Executive Officer role helps provide strong, unified leadership for our management team and optimizes communication with our board of directors. In addition, having previously served for many years as a director of other publicly-traded and privately-held companies, as well as in executive management roles, Mr. Cozadd brings both a strategic and operational perspective to this combined position.

To counterbalance concerns regarding our board's decision to have a combined Chairman and Chief Executive Officer, our Corporate Governance Guidelines require that the independent directors elect a Lead Independent Director when the roles of Chairman and Chief Executive Officer are held by the same person. Since 2014, Rick Winningham has served as our Lead Independent Director. A critical function of the Lead Independent Director is to help to ensure the effective independent functioning of the board of directors in its oversight responsibilities and to provide an appropriate balance in the company's leadership.

Specific roles and responsibilities of the Lead Independent Director, which are detailed in our Corporate Governance Guidelines, include:

- serving as the principal liaison between the independent directors and the Chairman;
- coordinating the activities of the independent directors, including developing agendas for and presiding at executive sessions of the independent directors;
- advising the Chairman on board and committee agendas, meeting schedules and information provided to other board members, including the quality, quantity and timeliness of such information that is necessary or appropriate for the directors to effectively and responsibly perform their duties;
- discussing the results of the Chief Executive Officer's performance evaluation with the chairperson of the compensation committee; and
- presiding at all meetings of the board of directors at which the Chairman is not present.

The Lead Independent Director also has the authority to call meetings of the independent directors of the board of directors and is available for consultation and communication with significant shareholders. In addition to fulfilling the basic requirements of his role as Lead Independent Director, Mr. Winningham attends meetings of committees where he is not a member to remain informed and engaged, communicates with the Chief Executive Officer on matters involving the company on a regular basis, regularly seeks input from other independent directors relating to significant developments at the company between regular board meetings, attends certain meetings at the company involving strategic portfolio and/or scientific reviews, and makes himself available for direct communication with significant shareholders as necessary.

In addition, our board of directors is currently comprised of 14 directors, of whom 13 are independent. At meetings of our board of directors, the independent directors regularly convene executive sessions without the presence of our Chairman and Chief Executive Officer and other members of management. Two of our independent directors have notified the company that they intend to resign as of or prior to the annual meeting.

We believe that our directors provide effective oversight of risk management for our company (including financial, operational, business, intellectual property, information technology (including cybersecurity) and reputational risk, governance and compliance), particularly as a result of the work of our committees and the ongoing dialogue between the full board, our Chairman and Chief Executive Officer and our active and engaged Lead Independent Director. Our audit committee is responsible for overseeing our financial reporting process on behalf of our board of directors and reviewing with management and our auditors, as appropriate, our major financial risk exposures and the steps taken by management to monitor and control these exposures. Our board of directors has also formalized our audit committee's role in oversight of risks related to information security, including cybersecurity. In its oversight role, the audit committee receives quarterly updates on information security developments, cybersecurity incidents and the steps taken by management to monitor and mitigate risk exposures in these areas. Our compensation committee approves compensation of executive officers and all material compensation plans for our company and reviews our compensation practices to ensure that they do not encourage excessive risk taking and provide appropriate incentives for meeting both short-term and long-term objectives and increasing shareholder value over time. Our compensation committee also works with our full board of directors to oversee matters related to diversity, talent, and culture strategy including human capital programs and policies regarding management development, talent planning, diversity and inclusion initiatives, and employee engagement, as well as human capital management, which includes reviewing workforce trends, executive succession plans and talent risk and maintaining compensation objectives and corporate policies that appropriately incentivize creating and maintaining a positive workplace and corporate culture. Our nominating and corporate governance committee oversees the company's risk management, other than with respect to the company's major financial, business or cybersecurity risk exposures or risks related to our compensation programs and policies, on behalf of our board of directors. At its meetings, our full board of directors receives reports concerning the management of the relevant risks from each committee, in addition to reports concerning material risks and concerns or significant updates on such matters from our Chief Legal Officer, Chief Compliance Officer and other executive officers, as necessary.

Meetings of the Board of Directors

The board of directors met seventeen times and acted by written consent once during 2020. All directors attended at least 75% of the aggregate number of meetings of the board of directors and of the committees on which they served that were held during 2020. As required under applicable Nasdaq listing standards, in 2020, the independent directors generally met at each regular board meeting in scheduled executive sessions at which only independent directors were present.

Director Commitments

Our board of directors believes that all members of the board should have sufficient time and attention to devote to board duties and to otherwise fulfill the responsibilities required of directors. In assessing whether directors and nominees for director have sufficient time and attention to devote to board duties, the nominating and corporate governance committee and our board of directors consider, among other things, whether directors may be "overboarded," which refers to the situation where a director serves on an excessive number of boards.

Our board of directors believes that each of our directors, including each of our director nominees, has demonstrated the ability to devote sufficient time and attention to board duties and to otherwise fulfill the responsibilities required of directors.

Classified Board Structure

Our board of directors is divided into three classes, designated Class I, Class II and Class III. Our nominating and corporate governance committee has discussed the shareholder feedback received on the topic of our classified board structure and continues to believe that this structure is appropriate for our company and beneficial to our shareholders. In particular, the nominating and corporate governance committee believes that the classified board structure:

- promotes stability and continuity, allowing our board and management to remain focused on our long-term strategy and value generation for our shareholders;
- allows for the development of institutional knowledge at the board level, which is particularly important in our industry, given the multi-year life cycles of our product development programs; and
- enhances director independence by decreasing pressures from special interest groups that might have short-term agendas contrary to the long-term interests of our shareholders.

Moreover, a classified board for an Irish company does not present the same entrenchment risk as for a typical U.S. company due to the ability of shareholders to refresh the board at any time under Irish law.

Information About Board Committees

The standing committees of the board of directors include an audit committee, a compensation committee and a nominating and corporate governance committee. Each of these committees is comprised solely of independent directors, has a chairperson and has a written charter approved by the board of directors reflecting applicable standards and requirements adopted by the SEC and Nasdaq. A copy of each committee charter can be found on our website, *www.jazzpharmaceuticals.com*, in the section titled "About" under the subsection titled "Board of Directors."

The following table provides membership information for 2020 for each of the audit, compensation, and nominating and corporate governance committees of our board of directors:

Name	Audit	Compensation[1]	Nominating and Corporate Governance[2]
Paul L. Berns		●	
Patrick G. Enright	●	●	
Peter Gray	C		
Heather Ann McSharry	●		C
Kenneth W. O'Keefe	●		
Anne O'Riordan	●		
Norbert G. Riedel, Ph.D.		C	
Elmar Schnee			●
Catherine A. Sohn, Pharm.D.		●	●
Rick E Winningham			●

C = committee chairperson ● = committee member

In 2020, the compensation committee's name was changed to the "Compensation & Management Development Committee" to reflect the committee's expanded role in reviewing our diversity, talent and culture strategy, including management development, diversity, equity and inclusion initiatives, talent planning and employee engagement. We refer to the Compensation & Management Development Committee in this proxy statement as the compensation committee.

Audit Committee

The audit committee of the board of directors oversees our corporate accounting and financial reporting processes, our systems of internal control over financial reporting and audits of our financial statements, the quality and integrity of our financial statements and reports, the qualifications, independence and performance of the auditors engaged as our independent registered public accounting firm for purposes of preparing or issuing an audit report or performing audit services and certain enterprise risk issues. Specific responsibilities of the audit committee include:

- evaluating the performance of and assessing the qualifications of the independent auditors;
- determining and approving the engagement and remuneration of the independent auditors;
- determining whether to retain or terminate the existing independent auditors or to appoint and engage new independent auditors;
- determining and approving the engagement of the independent auditors to perform any proposed permissible non-audit services;
- monitoring the rotation of partners of the independent auditors on our audit engagement team as required by applicable laws and rules;
- reviewing and advising on the selection and removal of the head of our internal audit function, the activities and organizational structure of the internal audit function and the results of internal audit activities;
- reviewing and approving the internal audit charter at least annually and the annual internal audit plan and budget;

1 Jennifer E. Cook was appointed as a member of our compensation committee in April 2021.
2 Mark D. Smith was appointed as a member of our nominating and corporate governance committee in April 2021.

- meeting to review our annual audited financial statements, our quarterly financial statements and our financial press releases with management and the independent auditors, including reviewing our disclosures under "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in our annual and quarterly reports filed with the SEC;
- reviewing, overseeing and approving transactions between our company and any related persons;
- conferring with management, the internal audit function and the independent auditors regarding the scope, adequacy and effectiveness of our internal control over financial reporting;
- reviewing with management, the internal audit function and the independent auditors, as appropriate, major financial risk exposures, including reviewing, evaluating and approving our hedging and other financial risk management policies, as well as the steps taken by management to monitor and control these exposures;
- establishing procedures, when and as required under applicable laws and rules, for the receipt, retention and treatment of any complaints received by our company regarding accounting, internal accounting controls or auditing matters and the confidential and anonymous submission by employees of concerns regarding questionable accounting or auditing matters; and
- reviewing with management our information security (including cybersecurity) risk exposures and the steps taken by management to monitor and mitigate these exposures.

The audit committee was during all of 2020 composed of Mr. Gray, Mr. Enright, Ms. McSharry, Mr. O'Keefe and Ms. O'Riordan. Our board of directors has determined that each of Mr. Gray, Mr. Enright, Ms. McSharry, Mr. O'Keefe and Ms. O'Riordan meets the independence requirements of Rule 10A-3 of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and the Nasdaq listing standards with respect to audit committee members. Our board of directors has also determined that each of Mr. Gray, Mr. Enright, Ms. McSharry and Mr. O'Keefe qualifies as an "audit committee financial expert" within the meaning of SEC regulations. In making this determination, our board of directors considered the overall knowledge, experience and familiarity of each with accounting matters, analyzing and evaluating financial statements, and, in the case of Mr. O'Keefe, managing private equity investments, and, in the case of Mr. Enright, managing venture capital investments. Mr. Gray serves as chairperson of the audit committee.

The audit committee met four times during 2020. The audit committee also had a number of informal discussions and consultations with one another, with our Chief Financial Officer, our Principal Accounting Officer and our Head of Internal Audit and with Mr. Cozadd during 2020.

Report of the Audit Committee of the Board of Directors[1]

The audit committee has reviewed and discussed the company's audited financial statements for the fiscal year ended December 31, 2020 with management of the company. The audit committee has discussed with KPMG, the independent registered public accounting firm that audited the company's financial statements for the fiscal year ended December 31, 2020, the matters required to be discussed by the applicable requirements of the Public Company Accounting Oversight Board, or PCAOB, and the SEC. The audit committee has also received the written disclosures and the letter from KPMG required by applicable requirements of the PCAOB regarding the independent accountants' communications with the audit committee concerning independence, and has discussed with KPMG that firm's independence. Based on the foregoing, the audit committee recommended to the board of directors that the audited financial statements be included in the 2020 Annual Report on Form 10-K filed with the SEC.

Respectfully submitted,
The Audit Committee of the Board of Directors

Mr. Peter Gray (Chairperson)
Mr. Patrick Enright
Ms. Heather Ann McSharry
Mr. Kenneth W. O'Keefe
Ms. Anne O'Riordan

(1) The material under the heading "*Report of the Audit Committee of the Board of Directors*" in this proxy statement is not "soliciting material," is not deemed "filed" with the SEC and is not to be incorporated by reference in any filing of the company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

Compensation Committee

The compensation committee of the board of directors reviews and oversees our compensation policies, plans and programs and reviews and generally determines the compensation to be paid to the executive officers and directors, and prepares and reviews the compensation committee report included in our annual proxy statement. Specific responsibilities and authority of our compensation committee include:

- reviewing, modifying (as needed) and approving overall compensation strategy and policies;
- recommending to our board of directors for determination and approval the compensation and other terms of employment of our Chief Executive Officer and evaluating our Chief Executive Officer's performance in light of relevant goals and objectives;
- reviewing and approving the goals and objectives of our other executive officers and determining and approving the compensation and other terms of employment of these executive officers, as appropriate;
- reviewing and recommending to our board of directors the type and amount of compensation to be paid or awarded to the members of our board of directors;
- having the full power and authority of our board of directors regarding the adoption, amendment and termination of our compensation plans and programs and administering these plans and programs;
- having direct responsibility for appointing, and providing compensation and oversight of the work of, any compensation consultants and other advisors retained by the compensation committee and considering the independence of each such advisor;
- reviewing our practices and policies of employee compensation as they relate to risk management and risk-taking incentives, to determine whether such compensation policies and practices are reasonably likely to have a material adverse effect on our company;
- periodically reviewing with our Chief Executive Officer the plans for succession to the offices of our executive officers and making recommendations to our board of directors with respect to the selection of appropriate individuals to succeed to these positions; and

- reviewing and discussing with management our disclosures contained under the caption "*Compensation Discussion and Analysis*" in our annual proxy statement.

The compensation committee was composed of four directors during 2020: Mr. Berns, Mr. Enright, Dr. Riedel and Dr. Sohn. Dr. Riedel currently serves as the chairperson of the compensation committee. In April 2021, Ms. Cook was appointed as a member of the compensation committee. Each member of the compensation committee meets the independence requirements of the Nasdaq listing standards with respect to compensation committee members. In determining whether Mr. Berns, Mr. Enright, Dr. Riedel, Dr. Sohn and Ms. Cook are independent within the meaning of the Nasdaq listing standards pertaining to compensation committee membership, our board of directors determined, based on its consideration of factors specifically relevant to determining whether any such director has a relationship to us that is material to that director's ability to be independent from management in connection with the duties of a compensation committee member, that no member of the compensation committee has a relationship that would impair that member's ability to make independent judgments about compensation of our executive officers.

Compensation Committee Processes and Procedures

Our compensation committee meets as often as it determines necessary to carry out its duties and responsibilities through regularly scheduled meetings and, if necessary, special meetings. The agenda for each compensation committee meeting is usually developed by members of our human resources department and our Chief Executive Officer, with input from members of our legal department, and is reviewed and finalized with the chairperson of the compensation committee. Members of our human resources and legal departments also attend compensation committee meetings. From time to time, various other members of management and other employees as well as outside advisors or consultants may be invited by the compensation committee to make presentations, provide financial or other background information or advice or otherwise participate in the compensation committee meetings. The compensation committee met seven times and acted by written consent once during 2020.

In making executive compensation determinations (other than for our Chief Executive Officer), the compensation committee considers recommendations from our Chief Executive Officer. In making his recommendations, our Chief Executive Officer receives input from our human resources department and from the individuals who manage or report directly to the other executive officers, and he reviews various third party compensation surveys and compensation data provided by the independent compensation consultant to the compensation committee, as described in the section of this proxy statement entitled "*Executive Compensation—Compensation Discussion and Analysis*." While our Chief Executive Officer discusses his recommendations for the other executive officers with the compensation committee, he does not participate in the deliberations and recommendations to our board of directors concerning, or our board of directors' determination of, his own compensation. The charter of the compensation committee grants the compensation committee full access to all books, records, facilities and personnel of the company, as well as authority to obtain, at our expense, advice and assistance from compensation consultants and internal and external legal, accounting or other advisors and consultants and other external resources that the compensation committee considers necessary or appropriate in the performance of its duties. In particular, the compensation committee has the authority, in its sole discretion, to retain or obtain, at the expense of the company, compensation consultants to assist in its evaluation of executive compensation, and is directly responsible for the appointment, compensation and oversight of the work of its compensation consultants. The compensation committee engages an independent compensation consultant each year to provide a competitive compensation assessment with respect to the executive officers to assist the compensation committee in making annual compensation decisions. Since 2010, Radford, a business area within Aon plc, or Aon, has been engaged by the compensation committee each year to provide peer company and industry compensation data and provide the compensation committee with advice regarding executive officers' compensation, including base salaries, performance-based bonuses and long-term equity compensation, and similar advice regarding non-employee director compensation.

The charter of the compensation committee provides that the compensation committee may delegate any responsibility or authority of the compensation committee under its charter to the chairperson of the committee or to one or more committee members, including subcommittees, except to the extent inconsistent with any applicable laws and rules, including the Nasdaq listing standards. Our compensation committee does not, however, delegate any of its functions to others in determining or recommending executive or director compensation.

For additional information regarding our processes and procedures for the consideration and determination of executive compensation, including the role of Radford in determining and recommending executive compensation, see the section of this proxy statement entitled "*Executive Compensation—Compensation Discussion and Analysis*." With respect to director compensation matters, our compensation committee recommends to our board of directors and our board of directors determines and sets non-employee director compensation. Our compensation arrangements for our non-employee directors are described under the section of this proxy statement entitled "*Director Compensation.*"

Compensation Committee Interlocks and Insider Participation

None of the members of our compensation committee was at any time our officer or employee during 2020. None of our executive officers serve, or in the past fiscal year served, as a member of the board of directors or the compensation committee of any entity that has one or more of its executive officers serving on our board of directors or compensation committee.

Compensation Consultant Fees

Since 2010, Radford has been engaged by the compensation committee each year to provide peer company and industry compensation data and provide the compensation committee with advice regarding executive officers' compensation, including base salaries, performance-based bonuses and long-term equity incentives, advice regarding directors' compensation as well as other matters under the compensation committee's charter. In 2020, the cost of Radford's consulting services directly related to compensation committee support was $330,678. In addition, in 2020, our human resources department participated in various human resources and compensation surveys and obtained general benchmarking survey data from Radford at a cost of $15,310.

Management also engaged with Aon plc affiliates of Radford, for various insurance-related products and services, covering health and benefits, pension-related services, other insurance brokerage services and risk services to the business. The aggregate Aon revenue from these additional services in 2020 (not related to Radford's compensation committee consulting services) was $360,292. Although the compensation committee was aware of the nature of the services performed by Aon affiliates and the non-executive employee compensation survey data provided by Radford, the compensation committee did not review and approve such services, surveys and insurance premiums and policies, as those were reviewed and approved by management in the ordinary course of business.

Aon maintains certain policies and practices to protect the independence of the executive compensation consultants engaged by the compensation committee. In particular, Radford provides an annual update to the compensation committee on the financial relationship between Aon and the company, and provides written assurances that, within Aon, the Radford consultants who perform executive compensation services for the compensation committee have compensation determined separately from Aon's other lines of business and from the other services it provides to the company. These safeguards were designed to help ensure that the compensation committee's executive compensation consultants continued to fulfill their role in providing independent, objective advice.

Compensation Committee Report[(1)]

The compensation committee has reviewed and discussed with management the Compensation Discussion and Analysis contained herein. Based on this review and discussion, the compensation committee has recommended to the board of directors that the Compensation Discussion and Analysis be included in our proxy statement for the 2021 annual general meeting of shareholders and be included in the company's Annual Report on Form 10-K we filed with the SEC for the fiscal year ended December 31, 2020.

Respectfully submitted,
The Compensation Committee of the Board of Directors

Dr. Norbert G. Riedel, Ph.D. (Chair)
Mr. Paul L. Berns
Mr. Patrick G. Enright
Dr. Catherine A. Sohn, Pharm.D.

(1) The material under the heading "*Compensation Committee Report*" in this proxy statement is not "soliciting material," is not deemed "filed" with the SEC and is not to be incorporated by reference in any filing of the company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

Nominating and Corporate Governance Committee

The nominating and corporate governance committee of our board of directors is responsible for, among other things:

- overseeing all aspects of our corporate governance functions on behalf of our board of directors;
- making recommendations to our board of directors regarding corporate governance issues;
- identifying, reviewing and evaluating candidates to serve on our board of directors, and reviewing and evaluating incumbent directors;
- reviewing, evaluating and considering the recommendation for nomination of incumbent members for reelection to our board of directors and monitoring the size of our board;
- recommending director candidates to our board of directors;
- overseeing on behalf of our board of directors the company's compliance with applicable laws and regulations, other than the financial compliance issues overseen by the audit committee;
- overseeing on behalf of our board of directors the company's risk management matters, other than with respect to risks that are financial or information security risks (as to which the audit committee has oversight responsibility on behalf of our board of directors) or risks related to compensation policies (as to which the compensation committee has oversight responsibility on behalf of our board of directors);
- evaluating director nominations and proposals by our shareholders and establishing policies, requirements, criteria and procedures in furtherance of the foregoing; and
- reviewing, discussing and assessing the performance of our board of directors, including committees of our board of directors, seeking input from all board members, senior management and others.

The nominating and corporate governance committee believes that candidates for director should have certain minimum qualifications, including the ability to read and understand basic financial statements, being over 21 years of age, and the highest personal integrity and ethics. The nominating and corporate governance committee also intends to consider such factors as possessing relevant expertise upon which to be able to offer advice and guidance to management, having sufficient time to devote to our affairs, demonstrated excellence in his or her field, having the ability to exercise sound business judgment and having the commitment to rigorously represent the long-term interests of our shareholders. However, the nominating and corporate governance committee retains the right to modify these qualifications from time to time. Members of the nominating and corporate

governance committee obtain recommendations for potential directors from their and other board members' contacts in our industry, and we or the nominating and corporate governance committee have in the past and may from time to time again in the future engage a search firm to assist in identifying potential directors. In this regard, in 2020, we underwent a board refreshment program and candidate search for new directors. As part of that search process, the nominating and corporate governance committee asked the search firm it engaged to provide, and then considered, a set of candidates that included both underrepresented people of color and different genders. In late 2020, after being considered and recommended by the nominating and corporate governance committee, we added two additional diverse directors to our board: Dr. Smith and Ms. Cook.

Candidates for director nominees are reviewed in the context of the then current composition of the board of directors, the operating requirements of the company and the long-term interests of shareholders. In this regard, we examine the experience and expertise of our board as a whole to ensure alignment between the abilities and contributions of our board and our strategic priorities and long-range plan, emphasizing, among other things, expertise in global and U.S. sales and marketing, in product development, in financial management and in corporate development transactions. In addition, while we do not have specific numerical targets with respect to board diversity, the nominating and corporate governance committee's policy is to take into account a broad range of considerations when assessing director candidates, including individual backgrounds, gender, skill sets, professional experience, geographic residency and other factors. The nominating and corporate governance committee assesses the effectiveness of its diversity policy through its periodic evaluation of the composition of the full board of directors. Recently, in recruiting and nominating candidates for our board of directors, our nominating and corporate governance committee has focused on increasing diversity overall, including with respect to gender and geographic residency.

Of the director nominees and the continuing directors, our board of directors has four female directors, four Irish directors, one of whom is a non-resident, one director that identifies as LBGTQ and one person of color. In the case of incumbent directors whose terms of office are set to expire, the nominating and corporate governance committee reviews these directors' overall service to the company during their terms, including the number of meetings attended, level of participation, quality of performance and any other relationships and transactions that might impair the directors' independence, as well as the results of the board of directors' self-evaluation, which is generally conducted annually, to determine whether to recommend them to the board of directors for nomination for a new term. In the case of new director candidates, the nominating and corporate governance committee also determines whether the nominee is "independent" based upon applicable Nasdaq listing standards, applicable SEC rules and regulations and the advice of counsel, if necessary. The nominating and corporate governance committee conducts appropriate and necessary inquiries into the backgrounds and qualifications of possible candidates after considering the function and needs of the board of directors. The nominating and corporate governance committee meets to discuss and consider the candidates' qualifications and then selects a nominee for recommendation to the board of directors.

The nominating and corporate governance committee will consider director candidates recommended by shareholders on a case-by-case basis, as appropriate. Shareholders wishing to recommend individuals for consideration by the nominating and corporate governance committee may do so by delivering a written recommendation to our Company Secretary at Fifth Floor, Waterloo Exchange, Waterloo Road, Dublin 4, Ireland with the candidate's name, biographical data and qualifications and a document indicating the candidate's willingness to serve if elected. The nominating and corporate governance committee does not intend to alter the manner in which it evaluates candidates based on whether the candidate was recommended by a shareholder or not.

To date, the nominating and corporate governance committee has not received any such nominations nor has it rejected a director nominee from a shareholder or shareholders.

Our nominating and corporate governance committee was during all of 2020 composed of four directors: Ms. McSharry, Mr. Schnee, Dr. Sohn and Mr. Winningham. Ms. McSharry serves as chairperson of the nominating and corporate governance committee. In April 2021, Dr. Smith was appointed as a member of the nominating and corporate governance committee. Each member of the nominating and corporate governance committee meets the independence requirements of the Nasdaq listing standards.

The nominating and corporate governance committee met eight times during 2020.

Corporate Governance Strengths

We are committed to exercising good corporate governance practices. We believe that good governance promotes the long-term interests of our shareholders and strengthens board and management accountability. The highlights of our corporate governance practices include the following:

- Of our director nominees and continuing directors, 11 out of 12 are independent
- Regular executive sessions of independent directors
- Audit, compensation and nominating and corporate governance committees are comprised solely of independent directors
- Diverse board in terms of tenure, residency, gender, ethnicity, sexual orientation, experience and skills
- Annual board self-evaluation(1)
- Risk oversight by the full board and committees
- Board and committees may engage outside advisors independently of management
- Independent compensation consultant reporting directly to the compensation committee
- Director participation in continuing education and related reimbursement policy
- Lead Independent Director with clearly delineated duties
- Corporate Governance Guidelines
- Majority voting for elections of directors for a three-year term
- Share ownership guidelines for directors and executive officers
- Anti-hedging/pledging policy
- Code of Conduct
- Annual advisory approval of executive compensation
- Shareholder ability to call extraordinary meetings

(1) In 2020, the nominating and corporate governance committee engaged a third-party advisor to conduct a comprehensive, independent evaluation that included interviews with each member of the board, including a specific focus on the key capabilities and skills that existed on the board and where there were opportunities for enhancement.

Other Corporate Governance Matters

Corporate Governance Guidelines. As a part of our board of directors' commitment to enhancing shareholder value over the long term, our board of directors has adopted a set of Corporate Governance Guidelines to provide the framework for the governance of our company and to assist our board of directors in the exercise of its responsibilities. Our Corporate Governance Guidelines cover, among other topics, board composition, structure and functioning, director qualifications and board membership criteria, director independence, board and board committee annual self-evaluations, committees of the board, board access to management and outside advisors, board share ownership guidelines, and director orientation and education. Our Corporation Governance Guidelines are available on our website at *www.jazzpharmaceuticals.com* under the section entitled "About" under "Board of Directors."

Anti-Hedging/Pledging Policy. Our insider trading policy prohibits directors, executive officers and other employees from engaging in speculative trading activities, including hedging transactions or other inherently speculative transactions with respect to our securities. Our insider trading policy also prohibits directors, executive officers and other employees from pledging our securities as collateral for any loans.

Share Ownership Guidelines for Directors and Executive Officers. We maintain and periodically review share ownership guidelines for our non-employee directors, Chief Executive Officer and certain other employees who serve on our executive committee. More information about our share ownership guidelines can be found under the sections of this proxy statement entitled "*Executive Compensation—Compensation Discussion and Analysis—Additional Compensation Information—Ownership Guidelines for Executive Officers*" and "*Director Compensation—Ownership Guidelines for Directors*."

Shareholder Ability to Call Extraordinary Meetings. Irish law provides that shareholders holding 10% or more of the total voting rights may at any time request that the directors call an extraordinary general meeting (*i.e.*, special meeting). The shareholders who wish to request an extraordinary general meeting must deliver to our principal executive office a written notice, signed by the shareholders requesting the meeting and stating the purposes of the meeting. If the directors do not, within 21 days of the date of delivery of the request, proceed to convene a meeting to be held within two months of that date, those shareholders (or any of them representing more than half of the total voting rights of all of them) may themselves convene a meeting within a specified period, but any meeting so convened cannot be held after the expiration of three months from the date of delivery of the request.

Code of Conduct. Our Code of Conduct applies to all of our employees, directors and officers, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, and those of our subsidiaries. The Code of Conduct is available on our website at *www.jazzpharmaceuticals.com* under the section entitled “About” under “Corporate Ethics.” We intend to satisfy the disclosure requirements under Item 5.05 of SEC Form 8-K regarding an amendment to, or waiver from, a provision of our Code of Conduct by posting such information on our website at the website address and location specified above.

Shareholder Communications with the Board of Directors. Our board of directors believes that shareholders should have an opportunity to communicate with the board, and efforts have been made to ensure that the views of shareholders are heard by the board of directors or individual directors, as applicable, and that appropriate responses are provided to shareholders in a timely manner. We believe that our responsiveness to shareholder communications to the board of directors has been excellent. Shareholders interested in communicating with the board of directors or a particular director (including our Chairman or our Lead Independent Director) may do so by sending written communication to: Jazz Pharmaceuticals plc, Attention: Company Secretary, Fifth Floor, Waterloo Exchange, Waterloo Road, Dublin 4, Ireland. Each communication should set forth the name and address of the shareholder as it appears on our records (and, if the shares are held by a nominee, the name and address of the beneficial owner of the shares), and the number of our ordinary shares that are owned of record by the record holder or beneficially by the beneficial owner, as applicable. The Company Secretary will, in his or her discretion, screen out communications from shareholders that are not related to the duties and responsibilities of the board of directors. The purpose of this screening is to allow the board of directors to avoid having to consider irrelevant or inappropriate communications (such as advertisements, solicitations and hostile communications). If deemed an appropriate communication, the Company Secretary will forward the communication, depending on the subject matter, to the Chairman, the Lead Independent Director or the chairperson of the appropriate committee of the board of directors.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information regarding the ownership of our ordinary shares as of May 1, 2021 (except as noted) by: (i) each director; (ii) each of the executive officers named in the Summary Compensation Table under "*Executive Compensation*" below (referred to throughout this proxy statement as our NEOs); (iii) all of our executive officers and directors as a group; and (iv) all those known by us to be beneficial owners of more than five percent of our ordinary shares.

	Beneficial Ownership[2]	
Name and Address of Beneficial Owner[1]	Number of Shares	Percentage of Total
5% Shareholders:		
BlackRock, Inc.[3] 55 East 52nd Street New York, NY 10055	6,395,173	11.2%
The Vanguard Group[4] 100 Vanguard Blvd. Malvern, PA 19355	4,877,893	8.6%
Renaissance Technologies LLC[5] 800 Third Avenue New York, NY 10022	3,099,050	5.4%
FMR LLC[6] 245 Summer Street. Boston, MA 02210	2,927,121	5.1%
Named Executive Officers and Directors:		
Bruce C. Cozadd[7]	1,031,071	1.8%
Daniel N. Swisher, Jr.[8]	86,952	*
Renée Galá[9]	15,750	*
Robert Iannone, M.D., M.S.C.E[10]	32,295	*
Kim Sablich[11]	14,700	*
Paul L. Berns[12]	38,120	*
Jennifer E. Cook[13]	—	*
Patrick G. Enright[14]	26,203	*
Peter Gray[15]	39,400	*
Heather Ann McSharry[16]	37,713	*
Seamus Mulligan[17]	1,183,873	2.1%
Kenneth W. O'Keefe[18]	46,992	*
Anne O'Riordan[19]	14,141	*
Norbert G. Riedel, Ph.D.[20]	36,839	*
Elmar Schnee[21]	30,982	*
Mark D. Smith, M.D.[22]	—	*
Catherine A. Sohn, Pharm.D.[23]	30,002	*
Rick E Winningham[24]	25,578	*
All directors and executive officers as a group (22 persons)[25]	2,785,882	4.8%

* Less than 1%.

(1) Unless otherwise provided in the table above or in the notes below, the address for each of the beneficial owners listed is c/o Fifth Floor, Waterloo Exchange, Waterloo Road, Dublin 4, Ireland.

(2) This table is based upon information supplied by officers and directors as well as Schedules 13G or 13G/A filed with the SEC by beneficial owners of more than five percent of our ordinary shares. Unless otherwise indicated in the footnotes to this table and subject to community property laws where applicable, we believe that each of the shareholders named in this table has sole voting and investment power with respect to the ordinary shares indicated as beneficially owned. Applicable percentages are based on 56,895,944 ordinary shares outstanding on May 1, 2021, adjusted as required by rules promulgated by the SEC. The number of shares beneficially owned includes ordinary shares issuable pursuant to the exercise of stock options that are exercisable and RSUs that will vest within 60 days of May 1, 2021. Shares issuable pursuant to the exercise of stock options that are exercisable and RSUs that will vest within 60 days of May 1, 2021 are deemed to be outstanding and beneficially owned by the person to whom such shares are issuable for the purpose of computing the percentage ownership of that person, but they are not treated as outstanding for the purpose of computing the percentage ownership of any other person.

(3) This information is based on a Schedule 13G/A filed with the SEC on February 5, 2021 by BlackRock, Inc., or BlackRock. According to the Schedule 13G/A, as of December 31, 2020, BlackRock has sole power to vote or direct the vote of 5,878,981 ordinary shares and sole power to dispose or direct the disposition of 6,395,173 ordinary shares. The Schedule 13G/A also indicates that BlackRock is acting as a parent holding company for a number of entities that beneficially owned the ordinary shares being reported. The Schedule 13G/A provides information only as of December 31, 2020 and, consequently, the beneficial ownership of the above-mentioned entity may have changed between December 31, 2020 and May 1, 2021.

(4) This information is based on a Schedule 13G/A filed with the SEC on February 10, 2021 by The Vanguard Group, or Vanguard. According to the Schedule 13G/A, as of December 31, 2020, Vanguard has shared power to vote or direct the vote of 51,993 ordinary shares, sole power to dispose or direct the disposition of 4,748,290 ordinary shares, and shared power to dispose or direct the disposition of 129,603 shares. The Schedule 13G/A provides information only as of December 31, 2020 and, consequently, the beneficial ownership of the above-mentioned entity may have changed between December 31, 2020 and May 1, 2021.

(5) This information is based on a Schedule 13G/A filed with the SEC on February 11, 2021 by Renaissance Technologies, LLC, or Renaissance, on behalf of itself and Renaissance Technologies Holdings Corporation, or RTHC. According to the Schedule 13G/A, as of December 31, 2020, Renaissance has sole power to vote or direct the vote of 3,099,050 ordinary shares and sole power to dispose or the direct the disposition of 3,099,050 ordinary shares. Of these shares, RTHC, as a result of its majority ownership of Renaissance, is the beneficial owner of 3,099,050 ordinary shares, with sole power to vote or direct the vote of 3,099,050 ordinary shares and sole power to dispose or direct the disposition of 3,099,050 ordinary shares. The Schedule 13G/A provides information only as of December 31, 2020 and, consequently, the beneficial ownership of the above-mentioned entities may have changed between December 31, 2020 and May 1, 2021.

(6) This information is based on a Schedule 13G filed with the SEC on February 8, 2021 by FMR, LLC, or FMR. According to the Schedule 13G, as of December 31, 2020, FMR has sole power to vote or direct the vote of 580,941 ordinary shares and sole power to dispose or the direct the disposition of 2,927,121 ordinary shares. The Schedule 13G provides information only as of December 31, 2020 and, consequently, the beneficial ownership of the above-mentioned entity may have changed between December 31, 2020 and May 1, 2021.

(7) Includes 818,905 ordinary shares Mr. Cozadd has the right to acquire pursuant to options exercisable within 60 days of May 1, 2021.

(8) Includes 72,186 ordinary shares Mr. Swisher has the right to acquire pursuant to options exercisable within 60 days of May 1, 2021.

(9) Includes 12,968 ordinary shares Ms. Galá has the right to acquire pursuant to options exercisable within 60 days of May 1, 2021. Ms. Galá was appointed our Executive Vice President and Chief Financial Officer as of March 2020.

(10) Includes 24,885 ordinary shares Dr. Iannone has the right to acquire pursuant to options exercisable and 3,050 shares Dr. Iannone is expected to receive pursuant to RSU's scheduled to vest, in each case within 60 days of May 1, 2021.

(11) Includes 10,500 ordinary shares Ms. Sablich has the right to acquire pursuant to options exercisable and 4,200 shares Ms. Sablich is expected to receive pursuant to RSU's scheduled to vest, in each case within 60 days of May 1, 2021. Ms. Sablich was appointed our Executive Vice President and General Manager, North America, as of June 2020.

(12) Includes 31,085 ordinary shares Mr. Berns has the right to acquire pursuant to options exercisable within 60 days of May 1, 2021.

(13) Ms. Cook joined our board of directors effective December 1, 2020.

(14) Includes 8,540 ordinary shares Mr. Enright has the right to acquire pursuant to options exercisable within 60 days of May 1, 2021.

(15) Includes 30,085 ordinary shares Mr. Gray has the right to acquire pursuant to options exercisable within 60 days of May 1, 2021.

(16) Includes 30,085 ordinary shares Ms. McSharry has the right to acquire pursuant to options exercisable within 60 days of May 1, 2021.

(17) Includes 31,085 ordinary shares Mr. Mulligan has the right to acquire pursuant to options exercisable within 60 days of May 1, 2021.

(18) Includes 26,585 ordinary shares Mr. O'Keefe has the right to acquire pursuant to options exercisable within 60 days of May 1, 2021.

(19) Includes 10,327 ordinary shares Ms. O'Riordan has the right to acquire pursuant to options exercisable within 60 days of May 1, 2021.

(20) Includes 30,085 ordinary shares Dr. Riedel has the right to acquire pursuant to options exercisable within 60 days of May 1, 2021.

(21) Includes 23,785 ordinary shares Mr. Schnee has the right to acquire pursuant to options exercisable within 60 days of May 1, 2021.

(22) Dr. Smith joined our board of directors effective December 1, 2020.

(23) Includes 22,085 ordinary shares Dr. Sohn has the right to acquire pursuant to options exercisable within 60 days of May 1, 2021.

(24) Includes 22,085 ordinary shares Mr. Winningham has the right to acquire pursuant to options exercisable within 60 days of May 1, 2021.

(25) Includes 1,289,852 ordinary shares that our executive officers and non-employee directors have the right to acquire pursuant to options exercisable within 60 days of May 1, 2021 and 7,250 ordinary shares that our executive officers are expected to receive pursuant to RSUs scheduled to vest within 60 days of May 1, 2021. See footnotes (7) through (24) above.

EXECUTIVE OFFICERS

The following table provides information regarding our executive officers as of June 1, 2021.

Name	Age	Position
Bruce C. Cozadd	57	Chairman and Chief Executive Officer
Daniel N. Swisher, Jr.	58	President
Renée Galá	49	Executive Vice President and Chief Financial Officer
Robert Iannone, M.D., M.S.C.E	54	Executive Vice President, Research and Development and Chief Medical Officer
Kim Sablich	52	Executive Vice President and General Manager, North America
Christopher Tovey	56	Executive Vice President and Chief Operating Officer and Managing Director, Europe and International
Finbar Larkin, Ph.D.	63	Senior Vice President, Technical Operations
Neena M. Patil	46	Chief Legal Officer and Senior Vice President, Legal and Corporate Affairs
Samantha Pearce	55	Senior Vice President, Europe and International
Patricia Carr	50	Vice President, Finance and Principal Accounting Officer

Bruce C. Cozadd. Biographical information regarding Mr. Cozadd is set forth above under "*Our Board of Directors*."

Daniel N. Swisher, Jr. was appointed our President as of January 2018 and also served as our Chief Operating Officer from that date until May 2021. From December 2003 to December 2017, he was Chief Executive Officer and a member of the board of directors of Sunesis Pharmaceuticals, Inc., a biopharmaceutical company focused on the development of novel targeted cancer therapeutics in hematologic and solid tumor malignancies. He also served as Chief Business Officer and Chief Financial Officer of Sunesis from 2001 to 2003. Prior to 2001, Mr. Swisher served in various management roles, including Senior Vice President of Sales and Marketing, for ALZA Corporation from 1992 to 2001. He currently serves as Chairman of the board of directors of Cerus Corporation, a biomedical products company focused on the field of blood transfusion safety, and as a member of the board of directors of Corcept Therapeutics Inc., a pharmaceutical company focused on cortisol-modulating therapeutics to address metabolic and other serious medical conditions. Mr. Swisher received a B.A. from Yale University and an M.B.A. from the Stanford Graduate School of Business.

Renée Galá was appointed our Executive Vice President and Chief Financial Officer as of March 2020. From January to June 2019, Ms. Galá served as the Chief Financial Officer of GRAIL, Inc., a private healthcare company focused on the early detection of cancer. Prior to that, from December 2014 to January 2019, she served as Senior Vice President and Chief Financial Officer of Theravance Biopharma, Inc., a biopharmaceutical company, following its spin-out from Innoviva, Inc. Ms. Galá joined Innoviva in 2006 and held various roles in the finance organization before leading the company's spin-out transaction. Prior to that, Ms. Galá served in various roles in global treasury, pharmaceutical sales and corporate strategy/business development at Eli Lilly and Company, from 2001 to 2006. Before joining Eli Lilly, Ms. Galá spent seven years in the energy industry in positions focused on corporate finance, project finance, and mergers and acquisitions. Ms. Galá serves on the board of directors of Gossamer Bio, Inc., a clinical-stage biopharmaceutical company, where she also chairs the audit committee, and Gyroscope Therapeutics, a clinical-stage gene therapy company, where she also chairs the audit committee. Ms. Galá previously served on the board of directors of Corcept Therapeutics Inc. from June 2016 to June 2019. Ms. Galá holds a B.S. in Mathematics from Vanderbilt University and an M.B.A. from Columbia Business School.

Robert Iannone, M.D., M.S.C.E. was appointed our Executive Vice President, Research and Development as of May 2019, and additionally has served as our Chief Medical Officer since December 2019. From April 2018 until

Executive Officers (continued)

May 2019, Dr. Iannone served as Head of Research and Development and Chief Medical Officer of Immunomedics, Inc., a biopharmaceutical company. Prior to that, from July 2014 to April 2018, Dr. Iannone served in the roles of Senior Vice President and Head of Immuno-oncology, Global Medicines Development and the Global Products Vice President at AstraZeneca plc, a global science-led biopharmaceutical company. From 2004 to 2014, Dr. Iannone served in management roles at Merck Co., Inc., a global biopharmaceutical company, culminating in his role as Executive Director and Section Head of Oncology Clinical Development. From 2001 to 2004, he served as Assistant Professor of Pediatrics and from 2004 to 2012 as Adjunct Assistant Professor of Pediatrics at the University of Pennsylvania School of Medicine. Dr. Iannone has been serving on the board of directors of iTeos Therapeutics, Inc., a clinical-stage biopharmaceutical company, since May 2021, Jounce Therapeutics, Inc., a clinical-stage immunotherapy company, since January 2020 and on the Cancer Steering Committee of the Foundation for the National Institutes of Health since 2011. Dr. Iannone received a B.S. from The Catholic University of America, an M.D. from Yale University and an M.S.C.E. from University of Pennsylvania and completed his residency in Pediatrics and fellowship in Pediatric Hematology-Oncology at Johns Hopkins University.

Kim Sablich was appointed our Executive Vice President and General Manager, North America, as of June 2020. Ms. Sablich previously served as the Chief Commercial Officer of Myovant Sciences, Inc., a clinical-stage biopharmaceutical company, from December 2018 to May 2020. Prior to that, she served in various executive roles at GlaxoSmithKline plc, a multinational pharmaceutical company, including as Vice President, U.S. Primary Care Marketing from May 2015 to May 2018, as Vice President, Global Medicines Commercialization from July 2013 to May 2015, and as Vice President, U.S. Vaccines Commercial Strategy from October 2010 to June 2013. Prior to 2010, Ms. Sablich served in various positions of increasing responsibility at Merck & Company, a global healthcare company, in its commercial organization across sales, product management, pricing/access, and customer insights, with a focus on the cardiovascular, respiratory, and vaccines business areas. She serves on the board of directors of AllerGenis, LLC, a food allergy diagnostic solutions company. Ms. Sablich holds a B.A. in Economics from Denison University and an M.B.A. from The Wharton School of the University of Pennsylvania.

Christopher Tovey was appointed our Executive Vice President and Chief Operating Officer and Managing Director, Europe & International, in May 2021 following the GW Acquisition, where he served as Executive Vice President and Chief Operating Officer since joining GW in October 2012. Prior to joining GW, Mr. Tovey served in multiple roles at UCB Pharmaceuticals from 2006 to 2012, most recently as Vice President of Global Marketing Operations. Prior to joining UCB, Mr. Tovey served 18 years at GlaxoSmithKline plc in senior commercial roles in both the European and U.K. organizations. These roles included Director Commercial Strategy Distribution Europe, Director European Vaccine Therapy, Director Commercial Development U.K., Director Vaccines Business Unit U.K. and Business Unit Manager Oncology U.K. Mr. Tovey holds a BSc in marine biology from the University of Liverpool, U.K.

Finbar Larkin, Ph.D. was appointed our Senior Vice President, Technical Operations as of October 2019 and served as our Senior Vice President, Pharmaceutical Development & Manufacturing Science from September 2018 until October 2019, our Vice President, Technical Development from February 2014 until August 2018, and our Executive Director, Technical Operations from April 2013 until February 2014. Prior to that, from September 2009 until March 2013, Dr. Larkin served in management roles at Ipsen Pharma SAS, culminating in his role as Vice President, Engineering & Senior Specialist. From February 1997 until August 2009, he served as Vice President and Managing Director at Ipsen Manufacturing Ireland. From 1990 until 1997, he served in various project and operational management roles at Novartis. Prior to 1990, Dr. Larkin served in various roles in manufacturing science and technology, human resources and quality & analytical science at Lilly SA. Dr. Larkin received a B.Sc. and Ph.D. in Chemistry from University College Dublin.

Neena M. Patil was appointed our Senior Vice President and General Counsel as of July 2019, and has served as our Chief Legal Officer and Senior Vice President, Legal and Corporate Affairs since February 2021. From September 2018 to July 2019, Ms. Patil served as Senior Vice President, General Counsel and Corporate Secretary of Abeona Therapeutics Inc., a clinical-stage biopharmaceutical company. Prior to that, from May 2008 to October 2016, Ms. Patil served in management positions at Novo Nordisk Inc., culminating in her role as Vice President for Legal Affairs and Associate General Counsel. Prior to 2008, she worked for several other global biopharmaceutical companies including Pfizer, GPC Biotech and Sanofi. Since 2015, she has been serving on the

Executive Officers (continued)

board of directors of Penn Medicine – Princeton Medical Center Foundation. Ms. Patil received a B.A. from Georgetown University and a J.D. and Master of Health Services Administration from the University of Michigan.

Samantha Pearce was appointed our Senior Vice President, Europe and International as of March 2020. From March 2010 to December 2019, Ms. Pearce held various global senior management positions with Celgene Corporation, most recently as Vice President and General Manager, International Markets. Prior to that, from August 2002 to March 2010, she served in management positions at AstraZeneca plc, culminating in her role as Director, Specialist Care. Prior to August 2002, she worked for DuPont Pharmaceuticals. Ms. Pearce received a B.Sc. from Birmingham University, U.K. and an M.B.A. from Cranfield University, U.K.

Patricia Carr was appointed our Vice President, Finance in July 2012 and was appointed our Principal Accounting Officer as of August 2019. Prior to that, from September 2011 to July 2012, she served as Vice President, Finance of Alkermes plc, a global biopharmaceutical company. From June 2002 to September 2011, she served in a number of roles in Elan Corporation, a neuroscience-based biotechnology company, most recently as Vice President, Finance. Ms. Carr is a Fellow of the Institute of Chartered Accountants (Ireland) and received a Bachelor of Commerce from the National University of Ireland, Galway.

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

The following Compensation Discussion and Analysis describes the material elements of compensation for the following individuals who served as our principal executive officer, principal financial officer and three other most highly compensated executive officers as December 31, 2020. These individuals are our named executive officers, or NEOs, for 2020.

Bruce C. Cozadd
Chairman and Chief Executive officer (CEO)

Daniel N. Swisher, Jr.
President and Chief Operating Officer (COO)(1)

Renée Galá
Executive Vice President and Chief Financial Officer (CFO)

Robert Iannone
Executive Vice President, Research and Development and Chief Medical Officer (CMO)

Kim Sablich
Executive Vice President and General Manager, North America

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Compensation Discussion and Analysis

(1) Mr. Swisher served as our Chief Operating Officer from January 2018 to May 2021.

Executive Summary

We are an innovative global biopharmaceutical company dedicated to developing and commercializing life-changing medicines that transform the lives of patients with serious diseases – often with limited or no therapeutic options. We have a diverse portfolio of marketed medicines and novel product candidates, from early- to late-stage development, across key therapeutic areas. Our focus is in neuroscience, including sleep, epilepsy and movement disorders, and in oncology, including hematologic malignancies and solid tumors. We actively explore new options for patients, including novel compounds, small molecules and biologics and through cannabinoid science and innovative delivery technologies.

Our lead marketed products are:

- **Xyrem® (sodium oxybate) oral solution**, a product approved by the U.S. Food and Drug Administration, or FDA, and marketed in the U.S. for the treatment of both cataplexy and excessive daytime sleepiness, or EDS, in narcolepsy patients seven years of age and older;
- **Xywav™ (calcium, magnesium, potassium, and sodium oxybates) oral solution**, a product that contains 92% less sodium than Xyrem, approved by FDA and launched in the U.S. in November 2020 for the treatment of cataplexy or EDS in narcolepsy patients seven years of age and older;
- **Epidiolex®**, a pharmaceutical formulation comprising highly purified plant-derived cannabidiol, or CBD, approved in the U.S. and also in Europe, where it is marketed as Epidyolex, for the treatment of seizures associated with Lennox-Gastaut syndrome (LGS), Dravet syndrome and Tuberous Sclerosis Complex (TSC), for patients one year of age and older;
- **Sunosi® (solriamfetol)**, a product approved by FDA and marketed in the U.S. and in Europe to improve wakefulness in adult patients with EDS associated with narcolepsy or obstructive sleep apnea;
- **Zepzelca™ (lurbinectedin)**, a product approved by FDA in June 2020 and launched in the U.S. in July 2020 for the treatment of adult patients with metastatic small cell lung cancer, or SCLC, with disease progression on or after platinum-based chemotherapy;
- **Vyxeos® (daunorubicin and cytarabine) liposome for injection**, a product approved in the U.S. and in Europe (where it is marketed as Vyxeos® liposomal 44 mg/100 mg powder for concentrate for solution for infusion) for the treatment of adults with newly-diagnosed therapy-related acute myeloid leukemia, or AML, or AML with myelodysplasia-related changes;
- **Defitelio® (defibrotide sodium)**, a product approved in the U.S. for the treatment of adult and pediatric patients with hepatic veno-occlusive disease, or VOD, also known as sinusoidal obstruction syndrome, with renal or pulmonary dysfunction following hematopoietic stem cell transplantation, or HSCT, and in Europe (where it is marketed as Defitelio® (defibrotide)) for the treatment of severe VOD in adults and children after undergoing HSCT therapy; and
- **Erwinaze® (asparaginase Erwinia chrysanthemi)**, a treatment approved in the U.S. and in certain markets in Europe (where it is marketed as Erwinase®) for patients with acute lymphoblastic leukemia, or ALL, who have developed hypersensitivity to E. coli-derived asparaginase.

Our strategy to create sustainable shareholder value is focused on:

- Strong commercial execution to drive diversified revenue growth and address unmet medical needs of our patients across our product portfolio;
- Expanding and advancing our pipeline through internal and external patient-centric innovation to achieve a valuable product portfolio of durable, highly differentiated programs;
- Continuing to build a flexible, efficient, and productive development engine for targeted therapeutic conditions to identify and progress early- and mid-stage assets; and
- Investing in an efficient, scalable operating model and differentiated capabilities to enable growth; and unlock further value through indication expansion and global markets.

In 2020, consistent with our strategy, we continued to focus on research and development activities within our neuroscience and oncology therapeutic areas, such as our expansion into solid tumors, and exploring and investing in adjacent therapeutic areas that could further diversify our portfolio. In addition, in May 2021, we completed the GW Acquisition. We view the GW Acquisition as consistent with our overall business and capital allocation strategy to expand our neuroscience portfolio and drive substantial value for our shareholders. We achieved these accomplishments despite the global impact of the COVID-19 pandemic. In response to the COVID-19 pandemic, we developed a comprehensive response strategy including establishing cross-functional response teams and implementing business continuity plans to manage the impacts of the evolving effects of the COVID-19 pandemic on our employees, patients and our business. We support broad public health strategies designed to prevent the spread of COVID-19 and are focused on the health and welfare of our employees.

2020 Performance Highlights

Despite the challenges faced due to the COVID-19 pandemic in 2020, we delivered record total revenues and made meaningful progress on our goal to significantly grow and diversify 2022 revenues from products launched since 2019, highlighted by the strong execution of our U.S. launches of both Zepzelca and Xywav. We meaningfully increased revenues, executed three product launches, advanced early- and late-stage clinical trials and added multiple new product candidates to our expanding pipeline, all of which exemplify our highly effective operational execution throughout 2020, while continuing our transformation as an innovative global biopharmaceutical company.

Financial

- 2020 total revenues of $2,363.6 million increased 9% over 2019
- 2020 GAAP[1] net income of $238.6 million, or $4.22 per diluted share, compared to $523.4 million, or $9.09 per diluted share, for 2019
- 2020 non-GAAP adjusted net income of $704.0 million[2], or $12.46 per diluted share, compared to $885.2 million, or $15.38 per diluted share, for 2019

Commercial

- 2020 net sales of Xyrem of $1,741.8 million increased 6% over 2019
- In November 2020, we launched in the U.S. Xywav (formerly JZP-258), an oxybate product that contains 92% less sodium than Xyrem, for the treatment of cataplexy or excessive daytime sleepiness, or EDS, in narcolepsy patients seven years of age and older. Net product sales for Xywav were $15.3 million in the fourth quarter of 2020
- In July 2020, we launched in the U.S. Zepzelca for the treatment of adult patients with metastatic small cell lung cancer with disease progression on or after platinum-based chemotherapy. Net product sales for Zepzelca were $90.4 million in 2020
- Sunosi net product sales were $28.3 million in 2020
- 2020 net sales of Defitelio/defibrotide of $195.8 million increased 13% over 2019
- 2020 net product sales of Vyxeos were $121.1 million, in line with 2019

1 U.S. generally accepted accounting principles (GAAP)

2 2020 non-GAAP adjusted net income includes a $200.0 million upfront payment to PharmaMar, which was recorded as acquired IPR&D expense. Commencing in 2020, we no longer exclude upfront and milestone payments from non-GAAP adjusted net income (and the related per share measure).

Research & Development

- In July 2020, Defitelio was approved by the Australian Therapeutic Goods Administration for the treatment of hepatic veno-occlusive disease.
- In September 2020, the U.S. Food and Drug Administration, or FDA, granted Rare Pediatric Disease designation for JZP-458 for the treatment of pediatric acute lymphoblastic leukemia, or ALL, and prior to that, in October 2019, FDA granted Fast Track designation for JZP-458, a recombinant Erwinia asparaginase product candidate, for the treatment of pediatric and adult patients with ALL or lymphoblastic lymphoma, who are hypersensitive to E. coli-derived asparaginase products. We initiated the submission of our biologics license application, or BLA, to FDA for JZP-458 in December 2020 under the Real-Time Oncology Review pilot program, and we will be prepared to launch as early as mid-2021 to ensure that ALL patients have access to a reliable, high-quality recombinant product.
- In October 2020, we announced positive top-line results from a Phase 3 clinical trial evaluating Xywav, also known as JZP-258, in adult patients with idiopathic hypersomnia, or IH, a chronic, neurological disorder that is characterized by EDS, prolonged nighttime sleep, long unrefreshing naps and sleep inertia and that currently has no approved therapies in the U.S. We completed the rolling submission of a supplemental new drug application, or sNDA, in February 2021, Subsequently, FDA granted Priority Review and a PDUFA action date of August 12, 2021. We are planning for a potential commercial launch in the fourth quarter of 2021.

Corporate Development

- In September 2020, we entered into a new research collaboration agreement with Redx Pharma plc, or Redx, to discover and develop drug candidates for two cancer targets in the Ras/Raf/MAP kinase pathway. This research collaboration follows our previously announced purchase of Redx's pre-clinical pan-Raf inhibitor program for the potential treatment of Raf and Ras mutant tumors in July 2019.
- In October 2020, we entered into an asset purchase and exclusive license agreement with SpringWorks Therapeutics, Inc., or SpringWorks, under which we acquired SpringWorks' FAAH inhibitor program, including an assignment of SpringWorks' proprietary FAAH inhibitor PF-04457845, now named JZP-150. We expect to initiate a Phase 2 study of JZP-150 in late 2021.
- In October 2020, we entered into an amendment and restatement of the original license agreement with Pharma Mar, S.A., or PharmaMar, which gave us our exclusive rights to develop and commercialize Zepzelca in Canada.

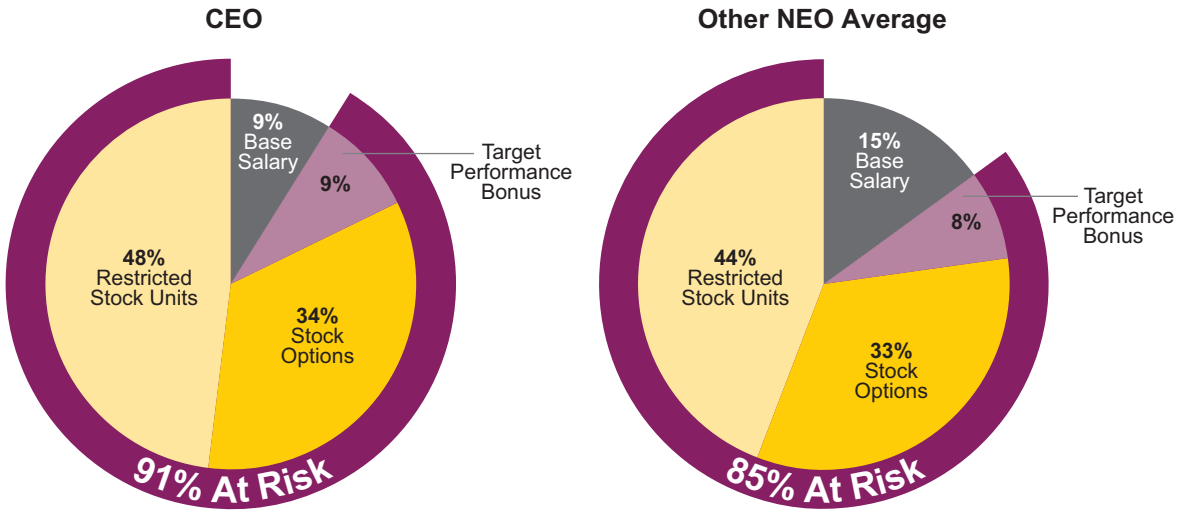
Key Features of Our Executive Compensation Program

What We Do	What We Don't Do
✓ Design executive compensation to align pay with performance	✘ No excessive change in control or severance payments
✓ Balance short-term and long-term incentive compensation, with the majority of executive compensation being "at-risk"	✘ No "single-trigger" cash or equity change in control benefits
✓ Align annual performance bonus plan for CEO with that of other executives and non-sales employees, with 100% of CEO's bonus based on such corporate performance goals as approved by the board of directors	✘ No repricing of underwater stock options without prior shareholder approval
✓ Establish threshold and maximum levels of achievement for payouts under our annual performance bonus plan	✘ No excessive perquisites
✓ Maintain executive share ownership guidelines	✘ No tax gross ups on severance or change in control benefits
✓ Provide "double-trigger" change in control benefits	✘ No post-termination retirement or pension benefits that are not available to employees generally
✓ Prohibit hedging and pledging by executive officers and directors	✘ No guaranteed bonuses or base salary increases
✓ Have 100% independent directors on the compensation committee	
✓ Hire independent compensation consultant who reports directly to the compensation committee	
✓ Meet regularly in executive session without management present	
✓ Starting in 2021, grant performance-based equity awards as approximately 50% of each NEO's target equity compensation	

2020 Pay-for-Performance Overview

A significant portion of target total direct compensation for our CEO and other NEOs is structured in the form of "at-risk" compensation, consisting of annual performance bonus and equity incentive awards, with the performance bonus payouts and equity award values dependent upon our company's performance. This aligns our executives' interests with those of our shareholders for near- and long-term performance. Despite adverse macroeconomic uncertainties and other conditions created by the COVID-19 pandemic that adversely affected our business in 2020, the compensation committee elected not to adjust the challenging performance goals set for our 2020 annual performance cash bonus plan.

The pie charts below show the various regular components of target total direct compensation for 2020 for our CEO and other NEOs. These components include the following: (i) annual base salary rate for 2020; (ii) annual target performance bonus opportunity for 2020; and (iii) the grant date fair value of equity awards granted in 2020. The pie charts exclude the non-recurring cash signing bonus Mses. Galá and Sablich each received in connection with their respective appointments in 2020; such bonuses are not considered part of the on-going annual target total direct compensation opportunity.



Compensation Philosophy and Objectives

Our executive compensation program is designed with the following objectives and philosophy:

- **Attract, incentivize, reward and retain diverse, talented individuals with relevant experience in the life sciences industry through a competitive pay structure.** We reward individuals fairly over time and seek to retain those individuals who continue to meet our high expectations.
- **Deliver balanced total compensation packages to accomplish our business objectives and mission.** Our executive compensation program focuses on *target total direct compensation*, combining short-term and long-term components, cash and equity, and fixed and variable payments, in the proportions that we believe are the most appropriate to incentivize and reward our executive officers for achieving our corporate goals while minimizing incentives for excessive risk-taking or unethical conduct.
- **Align pay with our performance.** Our annual performance bonus awards are not earned unless pre-determined levels of performance are achieved against annual corporate objectives approved by our board of directors at the beginning of the year. Likewise, our stock option awards will not provide realizable value and our restricted stock unit, or RSU, awards will not provide increased value unless there is an increase in the value of our shares, which benefits all shareholders. We also have executive share ownership guidelines to further support our ownership culture and align the interests of executive officers and shareholders. Further, starting in 2021, approximately 50% of each NEO's target equity compensation will be in the form of performance-based equity awards, or PSUs.

How We Determine Executive Compensation

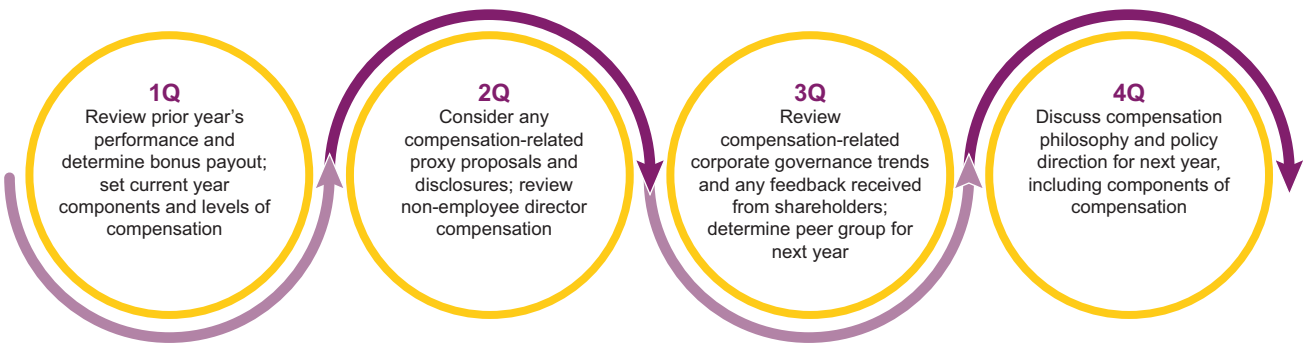
Role of Our Compensation & Management Development Committee and Executive Officers

In 2020, the compensation committee's name was changed to the "Compensation & Management Development Committee" to reflect the committee's expanded role in reviewing our diversity, talent and culture strategy, including management development, diversity, equity and inclusion initiatives, talent planning and employee engagement. We refer to the Compensation & Management Development Committee in this proxy statement as the compensation committee. The compensation committee is (and was at all times during 2020) composed entirely of independent directors, as defined by Rule 5605(a)(2) of the Nasdaq listing standards. Our compensation committee meets as often as it determines necessary to carry out its duties and responsibilities through regularly scheduled meetings and, if necessary, special meetings. Our compensation committee also has the authority to take certain actions by written consent of all members. The agenda for each compensation committee meeting is usually developed by members of our human resources department and our CEO, with input from members of our legal department, and is reviewed and finalized with the chairperson of the compensation committee.

The compensation committee reviews and oversees our compensation policies, plans and programs and reviews and generally determines the compensation to be paid to the executive officers, including the NEOs. Either the compensation committee or the independent members of our board of directors, upon recommendation from the compensation committee, who receives input and advice from its independent compensation consultant, approve the compensation of our CEO. References in this Compensation Discussion and Analysis to our board of directors approving our CEO's compensation are to the independent members of our board of directors.

In making other executive compensation determinations, the compensation committee considers recommendations from our CEO. In making his recommendations, our CEO receives input from our human resources department and from the individuals who manage or report directly to the other executive officers, and he reviews various sources of market compensation data provided by the independent compensation consultant to the compensation committee, as described below. While our CEO discusses his recommendations for the other executive officers with the compensation committee, he does not participate in the deliberations and recommendations to our board of directors concerning, or our board of directors' determination of, his own compensation. Members of our human resources and legal departments also attend compensation committee meetings.

Below are the highlights of the annual cycle our compensation committee follows in reviewing and making decisions with respect to our executive compensation program.



Role of the Independent Compensation Consultant

The compensation committee engages an independent compensation consultant each year to provide a competitive compensation assessment with respect to the executive officers to assist the compensation committee in making annual compensation decisions. Since 2010, Radford, a business area within Aon plc, has been engaged by the compensation committee each year to provide peer company and industry compensation data, when requested, and to provide the compensation committee with advice regarding executive officers' compensation, including base salaries, performance-based bonuses and long-term equity compensation, and similar advice regarding non-employee directors' compensation. The compensation committee has also consulted with Radford to update the peer company and industry compensation data on an annual basis, address specific questions that arise as the committee fulfills their responsibilities as outlined in the compensation committee charter. The advisor provides support in addressing changes in trends and best practices for executive compensation, incentive and equity and/or other best practices that are requested by the compensation committee, in order to help inform the compensation committee's decisions. Radford reports directly to the compensation committee, which maintains the authority to direct Radford's work and engagement. As requested, and under the purview of the compensation committee, Radford may advise the human resources department on projects from time to time. Radford interacts with management to gain access to company information that is required to perform services and to understand the culture and policies of the organization. Radford attends compensation committee meetings, and the compensation committee and Radford meet in executive session with no members of management present, as needed, to address various compensation matters, including deliberations regarding our CEO's compensation.

In assessing Radford's independence from management in providing executive compensation services to the compensation committee, the compensation committee considered that Radford is only engaged by, takes direction from, and reports to, the compensation committee for such services and, accordingly, only the compensation committee has the right to terminate or replace Radford as its compensation consultant at any time. The compensation committee also analyzed whether the work of Radford as a compensation consultant with respect to executive and director compensation raised any conflict of interest, taking into consideration the following factors:

- ✔ the provision of other services to our company by Radford and its affiliates;
- ✔ the amount of fees we paid to Radford and its affiliates as a percentage of Radford's total revenue;
- ✔ any business or personal relationship of Radford or the individual compensation advisors employed by it with any executive officer of our company;
- ✔ any business or personal relationship of the individual compensation advisors with any compensation committee member;
- ✔ Radford's policies and procedures that are designed to prevent conflicts of interest; and
- ✔ any ordinary shares of our company owned by Radford or the individual compensation advisors employed by it.

The compensation committee has determined, based on its analysis of the above factors, that the work of Radford and the individual compensation advisors employed by Radford as compensation consultants to our company has not created any conflict of interest.

Competitive Assessment of Compensation – Peer Companies and Market Data

Because we aim to attract and retain the most highly qualified executive officers in an extremely competitive market, the compensation committee believes that it is important when making its compensation decisions to be informed as to the current practices of comparable public companies with which we compete for top talent. To this end, the compensation committee reviews market data for each executive officer's position, compiled by Radford as described below, including information relating to the mix and levels of compensation for executive officers in the life sciences industry, with a focus on target total direct compensation in line with the compensation committee's holistic approach to executive compensation.

2020 Peer Group. The compensation committee uses a peer group and other market data to provide context for its executive compensation decision-making. Each year, Radford reviews the external market data and evaluates the composition of our peer group to ensure it appropriately reflects our growth, the increase in our revenues and market capitalization and the consolidation in our industry. In July 2019, with the assistance of Radford, the compensation committee considered companies:

- in the life sciences industry (specifically biotechnology and specialty bio/pharma companies) with commercial products on the market;
- with revenues of approximately one-fourth (0.25x) to three times (3x) our then-projected revenue (resulting in a range of $500 million to $6.0 billion in revenues);
- with market value of approximately one-fourth (0.25x) to four times (4x) our market capitalization at the time (resulting in a range of between $1.9 billion to $29.8 billion in market capitalization); and
- primarily located in the U.S. with a secondary focus on companies that are headquartered in Europe.

Based on these criteria, Radford recommended, and our compensation committee approved, that our peer group remain unmodified from 2019 to 2020. Accordingly, the peer group used for our 2020 compensation decisions consisted of the 16 companies listed in the table below. At the time the compensation committee approved the peer group, we were at the 66th percentile for trailing 12 months revenue and the 46th percentile for market capitalization among the new peer group. The compensation committee considered this a reasonable balance and a good representation of companies that were of similar scope and complexity.

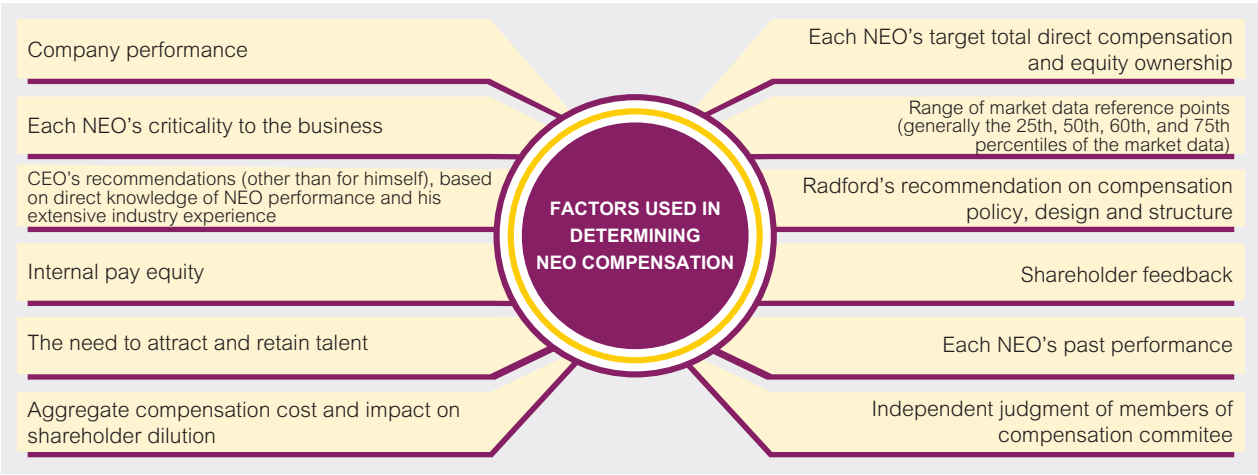
Alexion Pharmaceuticals, Inc.	Exelixis, Inc.	Mallinckrodt plc	Sarepta Therapeutics, Inc.
Alkermes plc	Horizon Therapeutics plc	Nektar Therapeutics	Seagen Inc. (formerly Seattle Genetics)
BioMarin Pharmaceutical Inc.	Incyte Corporation	Neurocrine Biosciences, Inc.	United Therapeutics Corporation
Endo International plc	Ionis Pharmaceuticals, Inc.	Regeneron Pharmaceuticals, Inc.	Vertex Pharmaceuticals Incorporated

2020 Market Data. In early 2020, Radford completed an assessment of executive compensation based on our 2020 peer group to inform the compensation committee's determinations of executive compensation for 2020. This assessment used market data that was compiled from multiple sources, including: (i) data from the Radford Global Life Sciences Survey with respect to the 2020 peer group companies listed above, or the peer survey data; (ii) the 2020 peer group companies' publicly disclosed information, or public peer data; and (iii) data from public biotechnology and pharmaceutical companies in the Radford Global Life Sciences Survey, or the general survey data, which included survey data with respect to our selected 2020 peer group companies. Generally, peer survey data and public peer data are used in establishing market data reference points, and the general survey data is used when there is a lack of peer survey data and public peer data for an executive officer's position. The peer survey data, the general survey data, and the public peer data, collectively referred to in this proxy statement as market data, were reviewed by the compensation committee, with the assistance of Radford.

Use of 2020 Market Data. From time to time, the compensation committee reviews target total direct compensation, consisting of target total cash compensation and equity compensation, against the market data described above primarily to ensure that our executive compensation program, as a whole, is positioned competitively to attract and retain the highest caliber of executive officers and to ensure that the total direct compensation opportunity for the executive officer group is aligned with our corporate objectives and strategic needs. The compensation committee does not target a specific percentile for setting the level of compensation for the NEOs and does not otherwise use a formulaic approach to setting pay against the market data. The compensation committee believes that over-reliance on benchmarking can result in compensation that is unrelated to the value delivered by our executive officers because compensation benchmarking does not take into account company-to-company variations among actual roles with similar titles or the specific performance of the executive officers.

Factors Used in Determining Executive Compensation

Our compensation committee sets the compensation of our executive officers at levels that the compensation committee determines to be competitive and appropriate for each NEO, using the compensation committee's professional experience and judgment. The compensation committee's pay decisions are not driven by a particular target level of compensation based on market data, and the compensation committee does not otherwise use a formulaic approach to setting executive pay. Instead, the compensation committee believes that executive pay decisions require consideration of multiple relevant factors, which may vary from year to year. The figure below reflects the factors the compensation committee considers in determining and approving the amount, form and mix of pay for our NEOs.



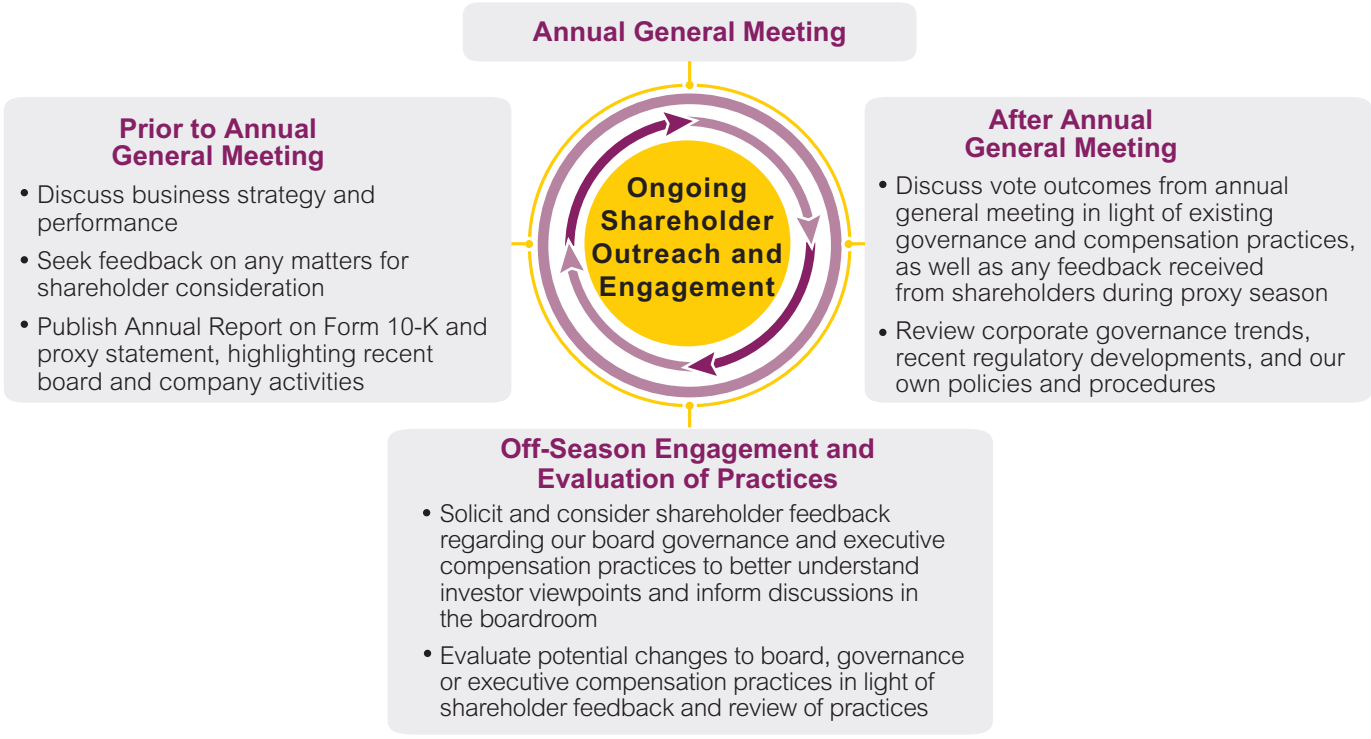
2020 Advisory Vote on Executive Compensation and Shareholder Engagement

We hold a say-on-pay advisory vote on executive compensation annually. Accordingly, at our 2020 annual meeting, we provided shareholders with the opportunity to cast a non-binding vote on a proposal regarding the compensation of our named executive officers for the year ended December 31, 2019. Of the votes cast, approximately 88% were voted in favor of the proposal. We were pleased with these results and believe it reflects our continuous efforts to engage with shareholders and solicit their feedback on our executive compensation program.

The compensation committee reviewed the final vote results for the proposal and, given the significant level of shareholder support, concluded that our executive compensation program continues to provide a competitive pay-for-performance package that effectively incentivizes the NEOs and encourages long-term retention. Accordingly, the compensation committee and, with respect to our CEO's compensation, our board of directors, determined not to make any significant changes to our 2020 executive compensation policies or decisions as a result of the vote. Our compensation committee and, with respect to our CEO's compensation, our board of directors will continue to consider the outcome of our say-on-pay proposals and our shareholders' views when making future compensation decisions for the NEOs.

We also engage with our shareholders when they have topics of particular interest, which may include executive compensation related matters. Shareholder feedback is reported to our compensation committee (and our nominating and corporate governance committee, as applicable) throughout the year.

The following graphic describes our typical shareholder outreach and engagement cycle.



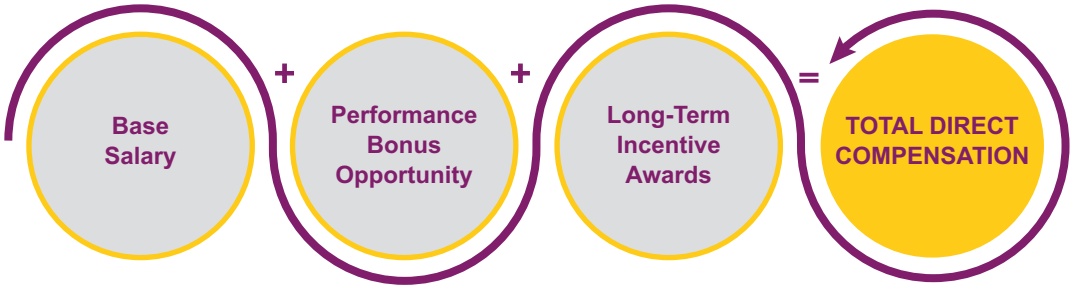
Although we determined not to make any significant changes to our 2020 executive compensation policies or decisions as a result of the say-on-pay advisory vote at our 2020 annual meeting, we have since implemented changes to our compensation program for closer alignment to our strategy and to address shareholder feedback, which includes:

- *Performance-Based Equity Awards.* While shareholders provided positive feedback regarding our pay-for-performance alignment, there was strong preference that our long-term incentive program include performance-based equity awards. To align our long-term incentive pay with our multiyear strategic priorities and respond to shareholder feedback, the compensation committee, working closely with management and Radford, approved a new performance-based equity program that will be included as part of the NEOs' 2021 annual long-term incentive grants. For more information on this change, see "Redesign of 2021 Long-Term Incentive Program" on page 61.
- *Caps on Annual Performance Bonus Payments*. Shareholders expressed their desire for our annual performance bonus plan to have an explicit cap on payouts to avoid the potential of excessive payouts not tied to performance and to mitigate certain risks inherent in incentive plans. In response to this feedback, beginning in 2021, the payouts under our annual performance bonus awards will be capped at 300% of the individual's target award, although in practice recent payouts for the NEOs have not exceeded ~150% of target. Our CEO's annual performance bonus award is generally limited to the actual bonus pool funding percentage (with a maximum funding of 200%), which is determined based on the achievement of pre-established financial and other strategic objectives as described in more detail on page 49 under the heading "2020 Performance Bonus Program."

Key Components and Design of the Executive Compensation Program

Total Direct Compensation

Our compensation program focuses on target total direct compensation, which consists of base salary, target performance bonus opportunity (which, together with base salary, we refer to as target total cash compensation), and long-term incentive awards (valued based on an approximation of grant date fair value).



We also offer our executive officers severance benefits upon certain types of involuntary terminations in connection with a change in control. The table below captioned "*Components of Total Direct Compensation*" describes key features of each primary component of our executive compensation program and explains why we provide the particular compensation component.

The compensation committee takes a holistic approach to compensation and seeks to ensure that the aggregate level of pay, across all of the pay elements is meeting the company's desired objectives for each executive officer. The compensation committee does not have any formal policies for allocating compensation among base salary, target performance bonus opportunity and long-term incentive awards. Instead, the compensation committee uses its experience and business judgment to establish a total compensation program for each NEO that is a mix of current, short-term and long-term incentive compensation, and cash and non-cash compensation, which it believes is appropriate to achieve the goals of our executive compensation program and our corporate goals.

Because we believe it is important to our success to pursue long-term corporate objectives, to avoid excessive risk-taking, and to preserve our cash resources, the majority of the NEOs' total direct compensation is comprised of "at-risk" compensation, consisting of performance-based bonus opportunities and long-term incentive awards, which align the executive officers' incentives with the interests of our shareholders. This allocation between "at-risk" and fixed compensation is consistent with our pay-for-performance philosophy.

Components of Total Direct Compensation

Component	Key Features	Purpose
Base Salary	♦ Fixed level of cash compensation ♦ No amount is contractually guaranteed ♦ Amounts reviewed and determined annually, and are generally effective by March 1 each year	♦ Provides fixed level of compensation that is competitive within our industry and reflective of the skills and experience required to be successful in fulfilling the role
Performance Bonus Award	♦ Cash compensation under the performance bonus plan, which is "at-risk" because it is dependent upon achievement of pre-established corporate performance objectives ♦ Target bonuses reviewed and determined annually ♦ Actual bonuses paid shortly after the end of each year, based on the extent corporate goals are attained as determined by the compensation committee, and for executive officers other than our CEO, their individual contributions toward such achievements	♦ Provides financial incentives to achieve key corporate objectives that are aligned with our business strategy ♦ Rewards NEOs (other than our CEO) for extraordinary individual contributions to our corporate achievements
Long-Term Incentive Compensation	♦ "At-risk" long-term incentives that realize value through sustained long-term appreciation of our share price ♦ Awards reviewed and generally granted annually, early in the year, at time of hire or promotion ♦ Stock options and RSUs generally vest over a 4-year period subject to executive officer's continued service with us; stock option exercise price is set equal to fair market value on date of grant (i.e., closing price on Nasdaq Global Select Market) ♦ Beginning in 2021, NEOs will receive 50% of their long-term incentive opportunity in the form of PSUs tied to multi-year strategic objectives and 50% in RSUs.	♦ Fosters ownership culture ♦ Links compensation to long-term success ♦ Up until 2021, stock options were a key aspect of our pay-for-performance culture, by providing a return to our executive officers only if the market price of our ordinary shares appreciates over the stock option term ♦ RSUs assist with managing dilution for our shareholders, while reinforcing the importance of shareholder value creation over time ♦ Beginning in 2021, PSUs will align compensation earned to the achievement of multi-year strategic objectives and stock price performance versus peer companies. ♦ Executive share ownership guidelines to further support our ownership culture and align the interests of executive officers and shareholders

Other Benefits. Executive officers based in the United States are eligible to participate in all of our benefit plans, such as the 401(k) Plan (see the section below titled "*Description of Compensation Arrangements–401(k) Plan*"), our medical, dental, vision, short-term disability, long-term disability and group life insurance plans, in each case generally on the same basis as other employees. Executive officers based in the United States and Ireland are eligible to participate in our Employee Stock Purchase Plan, or ESPP, generally on the same basis as other employees. We also have a section 125 flexible benefits healthcare plan and a flexible benefits childcare plan under which employees can set aside pre-tax funds to pay for qualified healthcare expenses and qualified childcare expenses not reimbursed by insurance. We do not currently offer pension or other retirement benefits in the United States; outside the U.S. we offer pension or other retirement benefits that are consistent with local regulations.

Severance Benefits upon Change in Control. Executive officers based in the United States are also eligible to participate in our Amended and Restated Executive Change in Control and Severance Benefit Plan, or the change in control plan, which is described below under the headings "*Additional Compensation Information—Change in Control Plan*" and "*Potential Payments upon Termination or Change in Control—Amended and Restated Executive Change in Control and Severance Benefit Plan*." The change in control plan provides certain severance benefits to participants, in connection with specified involuntary termination events, including termination without cause and constructive termination, following a change in control. Certain executive officers who are not employed by our U.S. affiliates receive comparable change in control benefits pursuant to their employment agreements. The compensation committee believes these severance benefits are important from a retention perspective to provide some level of protection to our executives who might be terminated following a change in control and that the amounts are reasonable and maintain the competitiveness of our executive compensation and retention program. The compensation committee believes this structure serves to mitigate the distraction and loss of key executive officers that may occur in connection with rumored or actual fundamental corporate changes. Such payments protect the interests of our shareholders by enhancing executive focus during rumored or actual change in control activity, retaining executives despite the uncertainty that generally exists while a transaction is under consideration and encouraging the executives responsible for negotiating potential transactions to do so with independence and objectivity. We do not provide any tax gross up payments on severance benefits.

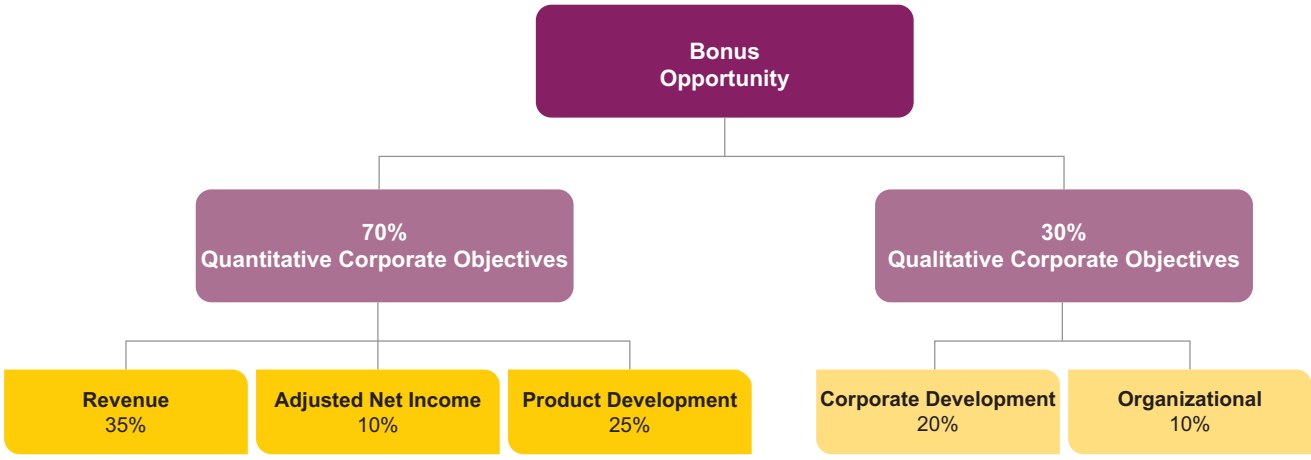
Clawback Requirement. In April 2021, our compensation committee adopted a policy for recoupment of incentive compensation, or a clawback policy. In the event we are required to restate our financial results due to material noncompliance with any financial requirement and the misconduct of an executive officer covered by the policy contributed to such noncompliance, we may recover the amount of any incentive compensation, including any cash or equity compensation granted, earned or vested based in whole or in part on the attainment of a financial performance goal or metric that was paid to him or her during the three-year period preceding the date of the restatement and attributable to the erroneously reported results. The executive officers covered by the policy include our current or former executive officers who are, or were at the time of the relevant misconduct, designated by the board of directors as an officer for purposes of Section 16 of the Exchange Act. The misconduct covered by the policy includes any knowing violation of SEC rules and regulations or company policy, breach of fiduciary duty or willful commission of an act of fraud, dishonesty, gross recklessness or gross negligence in the performance of the executive officer's duties, as determined by the compensation committee.

In addition, as a public company, if we are required to restate our financial results due to our material noncompliance with any financial reporting requirements under the federal securities laws as a result of misconduct, our CEO and CFO may be legally required to reimburse our company for any bonus or other incentive-based or equity-based compensation they receive in accordance with the provisions of section 304 of the Sarbanes-Oxley Act of 2002.

2020 Performance Bonus Program

The corporate objectives and relative weightings established by the board of directors for the 2020 performance bonus program that were communicated to the NEOs in early 2020 are described in the chart below. The revenue objective described below included strategically important, revenue-related stretch goals with the opportunity to

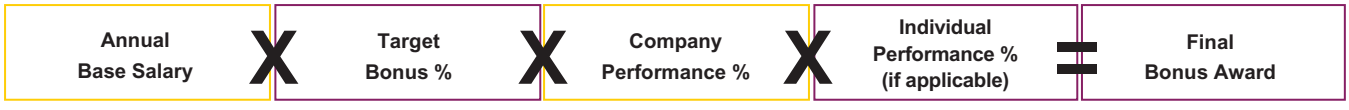
earn up to an additional 17.5% bonus pool funding. Likewise, the adjusted net income objective included a stretch goal with the opportunity to earn up to an additional 2.5% bonus pool funding. For each of the five objectives, achievement can be between 0% and 200% based on company performance, including the identified stretch objectives for revenue and adjusted net income.



Following the end of the year, after adding together the resulting bonus pool funding percentages for the quantitative and qualitative objectives based on their relative weightings of 70% and 30%, respectively, and considering achievement of stretch goals, the compensation committee approved an overall bonus pool funding percentage of 127.3% of the target bonus pool for the 2020 plan year, as further described below.

The compensation committee did not set specific objectives for individual executive officers. Each executive officer is responsible for contributing to the corporate objectives, individually and as part of the leadership team, with each objective deemed to be important in determining the level of the company's performance during the year. In approving individual bonus awards, the compensation committee considers the individual contribution towards the company's achievement of the corporate objectives by each executive officer (other than our CEO). The actual bonus payments approved for each of the NEOs for 2020 are described below under "*2020 Compensation Decisions for Our Named Executive Officers.*"

Individual bonus awards are determined in accordance with the following methodology:



Quantitative Objectives

Each of the three main quantitative objectives for 2020, or objectively measurable goals, had a total relative overall weighting of 70%, and is described in the table and accompanying footnotes below, including each objective's weighting, actual results and performance multipliers, as well as the total bonus pool funding percentage resulting from the level of achievement of the quantitative objectives.

The compensation committee approved, at the start of the performance year, an algorithm with respect to each main quantitative objective (as well as the strategically important revenue-related stretch goals and the adjusted net income stretch goal discussed below) for calculating the bonus pool funding attributable to the extent of achievement for each such objective. The revenue objective, with a weighting of 35%, was split into an oxybate net sales objective weighted at 17.5% and a non-oxybate revenue objective weighted at 17.5%, as well as five related additional, or strategically important, stretch goals, each with its own individual weighting. The compensation committee set specific threshold and maximum levels of achievement for the revenue objective and the related stretch goals, which are described in the footnotes to the table below. The compensation committee also approved a stretch goal with its own individual weighting for the adjusted net income objective. For the

quantitative product development objectives, the compensation committee established various objectively measurable target goals within these objectives but did not set a threshold performance level; rather, an overall achievement of between 0% and 200%, measured against the multiple targets as described in more detail below, was determined by the compensation committee and used to calculate the applicable bonus pool funding percentage attributable to the product development objectives.

Quantitative Objectives	Weighting	Actual Results	Multiplier	Bonus Pool Funding[3]
1. **Revenue Objective**:				
• Achieve total oxybate net product sales in 2020 of $1,729 million[1]	17.5%	Above target: net product sales of $1,757 million	108%	18.9%
• Achieve total revenue, excluding oxybate net product sales, in 2020 of $643 million[1]	17.5%	Below target: total revenue excluding oxybate net product sales of $609 million (after giving effect to the adjustment identified in footnote (2))	73%[2]	12.8%
• *Stretch goal*: Exceed specified oxybate product year-over-year revenue bottle volume growth[4]	3.5%	Between threshold and maximum	73%	2.6%
• *Stretch goal*: Launch Xywav before November 30, 2020[5]	3.5%	Achieved	100%	3.5%
• *Stretch goal*: Exceed budgeted worldwide (WW) Sunosi net product sales[6]	3.5%	Below threshold	0%	0%
• *Stretch goal*: Exceed budgeted Zepzelca demand vials by ≥20%[7]	3.5%	Above target	100%	3.5%
• *Stretch goal*: Exceed budgeted WW Vyxeos net product sales[8]	3.5%	Below threshold	0%	0%
2. **Adjusted Net Income Objective**: Achieve non-GAAP adjusted net income* in 2020 of $907 million[1]	10%	Above target: non-GAAP adjusted net income* of $924 million (after giving effect to the additional adjustments identified in footnote (9))	109%[9]	10.9%
• *Stretch goal*: Achieve non-GAAP adjusted net income* in 2020 of $937 million	2.5%	Below threshold	0%	0%
3. **Product Development Objectives**: Execute on defined development projects[10]	25%	Achieved at 130% level[10]	130%	32.5%
Total				**84.8%**

Note: Amounts may not total due to rounding.

(1) If the specified threshold annual performance level was met (90% of target for the two components of the revenue objective and the adjusted net income objective), then a pre-established scaled performance multiplier (ranging from 50% to 150% for the two components of the revenue objective and 50% to 175% for the adjusted net income objective) would be used to calculate the applicable bonus pool funding percentage attributable to such quantitative objective. The performance multiplier would be zero if performance was below the threshold level, 50% if performance was at the threshold level, and then scaled for performance above 50% up to the applicable maximum level. The performance multiplier was capped for performance above the specified maximum performance level (110% of target for the two components of the revenue objective and 115% of target for the adjusted net income objective).

(2) To calculate the threshold performance achievement level and performance multiplier, the reported non-oxybate revenue of $607 million was increased by approximately $2.2 million to adjust for changes in foreign currency exchange rates.

(3) The percentages in this column represent, for each quantitative corporate objective, the weight of the quantitative objective multiplied by the performance multiplier that corresponds to the actual achievement of such quantitative objective. Due to rounding, the percentages in this column do not add precisely to the total.

(4) With respect to the oxybate product revenue bottle growth stretch goal, the performance threshold was set at 2.8% bottle volume growth, below which no addition to the total bonus pool funding would be made. Between 2.8% and 4.3% bottle volume growth, the amount added

to the total bonus pool funding percentage would increase from 0% to 3.5%. Actual achievement of 3.9% oxybate bottle volume growth for 2020 was above 2.8% resulting in 2.6% being added to the total bonus pool funding percentage.

(5) Xywav was launched in the U.S. in November 2020.

(6) With respect to the Sunosi worldwide net sales stretch goal, the threshold performance level was set at achievement of the budgeted Sunosi net sales. Exceeding the net sales budget by between 0% and 20% would have resulted in 0% to 3.5% (scaled linearly) being added to the total bonus pool funding percentage. This stretch goal was difficult to achieve from the outset given that Sunosi launched in the U.S. during 2019 and had not yet been approved in the EU at the start of 2020. The target assumed significant success in market access and product adoption with a new target audience of pulmonologists during 2020. The COVID-19 pandemic had a significant impact on the ability of our field-based teams to interact with prescribers and patient's inability to meet with healthcare providers; the target was not adjusted to account for this. Actual Sunosi net sales for 2020 were below the threshold level of achievement.

(7) With respect to the Zepzelca demand vial stretch goal, the threshold performance level was set at achievement of 20% above budgeted Zepzelca demand vials. Exceeding the demand vials budget by between 20% and 50% would have resulted in 0% to 3.5% (scaled linearly) being added to the total bonus pool funding percentage. This stretch goal was inherently difficult to achieve from the outset given that Zepzelca had not yet been approved at the start of 2020 and the prospect of a successful mid-year launch was uncertain, particularly with less than six months to prepare for launch from the time we acquired the U.S. license to the product. However, actual Zepzelca demand vials for 2020 exceeded budget by 50%, resulting in 3.5% being added to the total bonus pool funding percentage.

(8) With respect to the Vyxeos worldwide net sales stretch goal, threshold performance level was set at achievement of the budgeted net sales. Exceeding the net sales budget by between 0% and 20% would have resulted in 0% to 3.5% (scaled linearly) being added to the total bonus pool funding percentage. This stretch objective was inherently difficult to achieve given ongoing market dynamics such as competitive product launches that continued to impact the ability to achieve the budgeted growth in revenues. The COVID-19 pandemic had a significant impact on the treatment practices of specialists, focusing on less intensive therapies. Actual Vyxeos worldwide net sales for 2020 were below the threshold level of achievement.

(9) To calculate the threshold performance achievement level and performance multiplier, the reported non-GAAP adjusted net income of $704.0 million was increased by $175.0 million for the post-tax impact of the $200.0 million upfront payment to PharmaMar to acquire the U.S. development and commercialization rights to Zepzelca and by an additional $45.4 million to adjust for the impact of other business development activities in 2020 that were not contemplated when the target was set. Commencing in 2020, we no longer exclude upfront and milestone payments from non-GAAP adjusted net income (and the related per share measure). However, we believe it is appropriate to adjust for these amounts in calculating the threshold performance achievement level due to the lack of predictability as to occurrence.

(10) With respect to the product development objectives, the compensation committee determined that the actual achievement by the company was 130%, resulting in a performance multiplier of 130%, and therefore, a 32.5% bonus pool funding percentage, based on achievement with respect to the target goals as described below:

Performance Category	Target Goals and Results
Top Priority	This performance category consisted of the following goals: (i) FDA approval of JZP-258 (Xywav) for the treatment of cataplexy and EDS in narcolepsy by the third quarter of 2020; (ii) achieving full enrollment in the JZP-258 Phase 3 clinical trial for the treatment of Idiopathic Hypersomnia, or IH, by the third quarter of 2020; (iii) FDA approval of lurbinectedin (Zepzelca) by the third quarter of 2020; (iv) develop molecule strategy for lurbinectedin; (v) enrollment of 51 patients in the JZP-458 Phase 2/3 program by the third quarter of 2020; and (vi) initiation of the BLA submission for JZP-458 before the end of the year. The compensation committee determined that we had met or significantly exceeded each of the performance goals for this category.
High Priority	This performance category consisted of the following goals: (i) Initiation of a Phase 2 study for JZP-385 in Essential Tremor in the fourth quarter of 2020; and (ii) Initiation of a Phase 3 study for Sunosi in Major Depressive Disorder, or MDD, in the third quarter of 2020. The compensation committee determined that we did not meet either of the performance goals for this category. While the compensation committee noted that the JZP-385 goal was impacted by the COVID-19 pandemic and the company made a strategic decision not to initiate the Phase 3 study in MDD for Sunosi, the compensation committee did not adjust the performance goals or award any credit for failure to meet the performance goals in this category in light of these effects.
All Other Development	This performance category consisted of the following goals: (i) Vyxeos phase 1b study completion; (ii) defibrotide prevention of Veno Occlusive Disease, or pVOD, phase 3 study interim analysis completion; (iii) defibrotide early development activities; and (iv) Pan-RAF inhibitor pre-clinical activities. The compensation committee determined that we had partially met our performance goals for other development programs. The compensation committee noted that performance in this category was impacted by the COVID-19 pandemic, but did not adjust the performance goals or otherwise take into account the impact of the COVID-19 pandemic in determining the extent to which we met our performance goals in this category.

With respect to the product development objectives, each of the three product related "top priority" goals – for JZP-258, lurbinectedin, and JZP-458 – carried a 20% weight. The two "high priority" goals – those relating to progress on JZP-385 and Sunosi – collectively carried a 20% weight. All other goals collectively carried a 20% weight.

In determining that the actual achievement by the company was 130% for the product development objective, the compensation committee employed a holistic analysis that took into account the compensation committee's weighting of the product development objectives described above and the degree to which they were met as a whole against the backdrop of competing development priorities. The compensation committee determined that performance in the top priority category significantly exceeded the goals with achievement of 200% in this category and 25% performance in the high priority and other development categories. Combined, this resulted in company achievement of 130%.

* *Non-GAAP adjusted net income is a non-GAAP financial measure that both excludes certain items from our GAAP reported net income and includes certain tax-related adjustments as reconciled under "Reconciliations of Non-GAAP Financial Measures" below, except that solely for purposes of calculating the threshold performance achievement level and performance multiplier for 2020, non-GAAP adjusted net income included the additional adjustment as set forth in footnote (9) to this table.*

Qualitative Objectives

The qualitative corporate objectives approved by the board of directors fell into two categories: (1) progress on corporate development activities, with a relative weighting of 20%, and (2) a demonstrated commitment to and progress on certain organizational goals, with a relative weighting of 10%. Achievement of the qualitative objectives is inherently less objectively measurable than the quantitative objectives.

Corporate Development Objective. The objective relating to progress on corporate development activities consisted of expanding our development and commercial portfolio of innovative products through a range of strategic and partnering transactions with a focus on sleep/neuroscience and hematology/oncology and the identification of additional therapeutic area opportunities. The multiplier applied to the corporate development objective ranged from 0% to 200%, based on the compensation committee's determination of the extent to which the corporate development objective was achieved during the year. In considering the company's corporate development accomplishments in 2020, the compensation committee noted that we advanced negotiations for the potentially transformative acquisition of GW (a definitive agreement was ultimately entered into in February 2021), acquired the rights to a Phase 2 ready neuroscience asset, and completed four pre-clinical transactions. The compensation committee weighed heavily our success in executing these transactions and their potential to meaningfully diversify our revenues starting in 2021 and add future revenue-generating products to our portfolio, our overall deal readiness, and our active and thoughtful corporate development process that led to the evaluation of several other opportunities during the year. The compensation committee determined that, as a whole, our achievement resulted in a multiplier of 150% and, therefore, a 30% bonus pool funding percentage for the 2020 corporate development objective.

Organizational Objective. With respect to the organizational objective, the compensation committee established four sub-goals. Because the sub-goals are not objectively measurable, they were not assigned individual weightings. The multiplier applied to the organizational corporate objective ranged from 0% to 200%, based on the compensation committee's determination of the extent to which the aggregate organizational corporate objective, including sub-goals, were achieved, as a whole, during the year. The organizational corporate objective sub-goals were:

- strengthen organizational capabilities;
- evolve operating culture for agility and scalability;
- attract, develop and retain talent to deliver on our mission, strategy and values; and
- maintain culture of compliance and adhering to our Code of Conduct, other policies and laws and regulations that apply to our business.

In evaluating the organizational objective, the compensation committee determined that 2020 was an unprecedented year in navigating culture, talent, and employee engagement. It required agility, creativity, and innovation to refocus priorities to both navigate new employee needs and challenges as well as to support critical business requirements. We have made DEI commitments to maintain or increase representation levels, embed a culture of inclusivity through continued education and learning goals, and ensure equity within our key talent processes. Overall, the company had a significant year of progress despite pandemic circumstances. This achievement was in large part fueled by the success of the continued ability to evolve and upgrade capabilities in critical areas and ensure a productive and engaged workforce. After taking into consideration both our accomplishments and challenges with respect to these sub-goals, the compensation committee determined that as a whole, our overall achievement resulted in a multiplier of 125% and therefore, a 12.5% bonus pool funding percentage for the 2020 organizational objective.

2020 Compensation Decisions for Our Named Executive Officers

General Approach

In making compensation decisions for 2020, the compensation committee considered the factors discussed in "*Factors Used in Determining Executive Compensation*" above and the compensation committee's specific compensation objectives for 2020. Our compensation committee did not use a formula or assign a particular weight to any one factor in determining each NEO's target total direct compensation. Rather, our compensation committee's determination of the target total direct compensation, mix of cash and equity and fixed and "at-risk" pay opportunities was a subjective, individualized decision for each NEO. The compensation committee reviewed and considered each element of pay in the context of the overall target total direct compensation for each NEO. When the compensation committee made changes to one element of pay, those changes were made in the context of the levels of the other elements of pay, and the resulting target total direct compensation for each NEO. As a result, the 2020 pay decisions for each NEO are presented holistically in this section.

The compensation committee also had access to market data with respect to target total cash compensation and target equity award grants. However, as described above, the compensation committee believes that over-reliance on benchmarking can result in compensation that is unrelated to the value delivered by our executive officers because compensation benchmarking does not take into account company-by-company variations among actual roles with similar titles or the specific performance of our executive officers.

Summary of 2020 Compensation Decisions

Target Total Cash Compensation. The compensation committee increased each NEO's base salary for 2020, and the new base salary rates were effective in March 2020.

Target Equity Compensation and Impact on Target Total Direct Compensation. In determining the appropriate size of 2020 equity award grants, at the time the compensation committee (and the board of directors, with respect to Mr. Cozadd) made its decisions, after careful consideration, the compensation committee aimed to deliver equity awards to each executive officer of a similar value to those delivered in 2019 to balance the need to manage overall dilution to our shareholders, maintain equity opportunities competitive with the market and serve the retention and incentive purposes of the awards.

Form and Mix of Equity Awards and Share Amount Determinations. The compensation committee intended to deliver approximately 50% of the potential value of each NEO's equity award in the form of stock options and 50% of the potential value in the form of RSUs, in each case based on an approximation of grant date fair value and using an approximately 2.5 to 1 ratio of stock option grants to RSUs, in order to mitigate dilution and to reflect the increased value of receiving shares at full value without the payment of an exercise price. The 50/50 value split was consistent with our historical practices for our executive officers. The actual share amounts granted to each executive officer were determined by applying the company's 90-day average share price (as of December 31, 2019) to the grant date fair value of the award, which the compensation committee and, in the case of Mr. Cozadd, the board of directors, intended to deliver (dividing such value by the average share price, in the case of RSUs, and applying a Black-Scholes option pricing model calculation using the average share price, in the case of stock options). A 90-day average share price was used, rather than a single day share price, in order to provide a more stabilized share value less susceptible to possible swings in the market. The exercise price of each stock option is equal to our closing share price on Nasdaq Global Select Market on the date of grant. The compensation committee understands that this process can result in the actual reported grant date value of an award being higher or lower than the intended value approved by the compensation committee, but has considered, in consultation with Radford, various approaches to granting equity awards, each of which have advantages and disadvantages, and determined that the process described above, which has been used historically by the compensation committee, is the most appropriate for the company at this time. The shares subject to the option awards vest over four years, with 25% vesting on the one-year anniversary of the grant date and the remainder vesting in equal monthly installments thereafter over the remaining 36 months. The RSUs vest over four years in equal annual installments.

On an annual basis, the compensation committee reviews market trends, including market peer use of performance-based vesting for equity awards, which are often favored by proxy advisory firms and certain institutional investors. For 2020, the compensation committee determined that equity awards vesting over time continued to be the most appropriate incentive structure for our executive officers to reward performance over time and achieve our retention objectives. Our time-based vesting schedules deliver retention incentives for the company over the long-term and, unlike awards that vest based on pre-determined operational or market goals, do not create incentives for inappropriate short-term risk-taking at the expense of realizing long-term value or the potential incentive for unethical conduct. In addition, we deliver a meaningful portion of compensation in the form of annual incentive compensation that is directly tied to, and incentivizes our executives to work towards, achievement of our key corporate goals. The key purposes served by time-vesting options and RSUs for 2020 are discussed above in the chart captioned "*Components of Total Direct Compensation.*"

Individual NEO Compensation Decisions

Below are summaries, for each NEO individually, of the compensation committee's decisions about 2020 target total direct compensation and the changes from each NEO's 2019 target total direct compensation. As described above, when making the 2020 compensation decisions, the compensation committee focused primarily on the target total direct compensation for each NEO while considering the factors set forth in the section titled "*Factors Used in Determining Executive Compensation*" and the compensation committee's specific compensation objectives for 2020. The footnotes to the tables also include the actual performance bonus paid to each of the NEOs for 2020 and how that actual bonus compared to each NEO's target bonus.

Bruce C. Cozadd, Chairman and CEO

	2019 Pay ($)	2020 Pay ($)	Change (%)
Target Total Cash Compensation	**2,034,415**	**2,135,723**	5.0%
Base Salary(1)	1,020,000	1,050,600	
Target Performance Bonus(2)	1,014,415	1,085,123	
Target Equity Compensation(3)	**12,381,420**	**10,091,856**	(18.5%)
Options	5,379,925	4,210,661	
RSUs	7,001,495	5,881,195	
Target Total Direct Compensation(4)	**14,415,835**	**12,227,579**	(15.2%)

(1) Represents annual base salary rate for the applicable year. 2020 base salary became effective in March 2020.

(2) The 2020 amount reflects a target performance bonus of 100% of base salary earned, unchanged from the target performance bonus percentage for 2019. The actual 2020 performance bonus paid was $1,381,400, reflecting 127.3% of the target performance bonus, based entirely on the overall 2020 bonus pool funding percentage of 127.3%. The compensation committee (with approval from the board of directors) determined that the overall 2020 bonus pool funding percentage of 127.3% was applicable to Mr. Cozadd, because, as CEO, Mr. Cozadd is responsible for the company meeting all of its objectives.

(3) The target equity compensation delivered (as presented in the chart) reflects the fair value of the awards as of the grant date, in accordance with FASB Accounting Standards Codification Topic 718, *Compensation—Stock Compensation*, or ASC 718, as reported in the Grants of Plan-Based Awards Table for 2020.

(4) The compensation committee and board of directors designed Mr. Cozadd's target total direct compensation to be competitive compared to the market data, appropriate from an internal equity perspective and more heavily weighted towards equity compensation, in line with our pay-for-performance philosophy. The compensation committee believed it was appropriate to provide a modest increase to his base salary in 2020 in recognition of his individual performance, the performance of the company under his leadership and to remain in line with general market increases. As described above, Mr. Cozadd's target bonus percentage remained the same as in 2019, but the increase in his base salary resulted in a higher target performance bonus opportunity.

Executive Compensation (continued)

Daniel N. Swisher, Jr., President and COO[1]

	2019 Pay ($)	2020 Pay ($)	Change (%)
Target Total Cash Compensation	**1,108,750**	**1,189,558**	7.3%
Base Salary[2]	675,000	690,000	
Target Performance Bonus[3]	433,750	499,558	
Target Equity Compensation[4]	**3,466,798**	**3,105,186**	(10.4%)
Options	1,506,379	1,295,588	
RSUs	1,960,419	1,809,598	
Target Total Direct Compensation[5]	**4,575,548**	**4,294,744**	(6.1%)

(1) Mr. Swisher served as our Chief Operating Officer from January 2018 to May 2021.

(2) Represents annual base salary rate for the applicable year. 2020 base salary became effective March 2020.

(3) The 2020 amount reflects a target performance bonus of 70% of base salary earned. The compensation committee increased Mr. Swisher's target performance bonus percentage in consideration of the market data and impact of Mr. Swisher's position. The actual 2020 performance bonus paid was $636,000, reflecting 127.3% of target performance bonus, based on the overall 2020 bonus pool funding percentage of 127.3%. The compensation committee determined that the overall 2020 bonus pool funding percentage of 127.3% was applicable to Mr. Swisher, given his overall responsibility for the key operating segments of the company.

(4) The target equity compensation delivered (as presented in the chart) reflects the fair value of the awards as of the grant date, in accordance with ASC 718, as reported in the Grants of Plan-Based Awards Table.

(5) The compensation committee designed Mr. Swisher's target total direct compensation to be competitive compared to the market data, appropriate from an internal equity perspective and more heavily weighted towards equity compensation, in line with our pay-for-performance philosophy. The compensation committee determined it was appropriate to increase Mr. Swisher's base salary in an amount necessary to reflect his scope of responsibility and oversight of significant functions within the organization, as well as to maintain competitive positioning relative to the market data and the other NEOs.

Renée Galá, Executive Vice President and CFO

	2019 Pay ($)(1)	2020 Pay ($)	Change (%)
Target Total Cash Compensation	**—**	**891,539**	—
Base Salary(2)	—	600,000	
Target Performance Bonus(3)	—	266,539	
Signing Bonus(4)	—	25,000	
Target Equity Compensation(5)	**—**	**3,198,880**	—
Options	—	1,382,012	
RSUs	—	1,816,868	
Target Total Direct Compensation(6)	**—**	**4,090,419**	—

(1) We entered into an employment offer letter with Ms. Galá pursuant to which she agreed to serve as our Executive Vice President and CFO effective March 16, 2020.

(2) Represents annual base salary rate for 2020. Ms. Galá's actual salary earned was lower due to her joining the company in March 2020.

(3) Reflects the target percentage of 55% of base salary earned for 2020, taking into account that Ms. Galá was not employed the entire year. The actual 2020 performance bonus paid was $405,000, reflecting 151.9% of target performance bonus, based on the overall 2020 bonus pool funding percentage of 127.3% and Ms. Galá's significant individual contributions to such achievement. Specifically, the compensation committee considered Ms. Galá's oversight of complex strategic matters and corporate priorities, such as planning and execution of our debt offering, development of our long-term strategy, her performance with respect to supporting the execution of corporate development priorities and her overall criticality to our business.

(4) Represents the cash signing bonus Ms. Galá received in connection with her appointment as Executive Vice President and CFO. In determining the amount of the bonus, the compensation committee considered the inducement value in recruiting Ms. Galá to join the company. To the extent Ms. Galá had voluntarily resigned within one year of her employment start date, she would have been required to repay the full amount of the signing bonus on or within 30 days of the later of her resignation or termination date.

(5) The target equity compensation delivered (as presented in the chart) reflects the fair value of the awards as of the grant date, in accordance with ASC 718, as reported in the Grants of Plan-Based Awards Table for 2020.

(6) The compensation committee designed Ms. Galá's target total direct compensation to be competitive compared to the market data, appropriate from an internal equity perspective and more heavily weighted towards equity compensation, in line with our pay-for-performance philosophy. In determining her compensation package, the compensation committee received advice from Radford to design a competitive, market-based compensation package appropriate for a senior executive with Ms. Galá's skills and experience and her overall expected contribution to our business.

Executive Compensation (continued)

Robert Iannone, Executive Vice President, Research and Development and CMO

	2019 Pay ($)	2020 Pay ($)	Change (%)
Target Total Cash Compensation	**927,192**	**900,769**	(2.8%)
Base Salary[1]	550,000	575,000	
Target Performance Bonus[2]	172,192	325,769	
Signing Bonus[4]	205,000	—	
Target Equity Compensation[3]	**2,922,079**	**2,096,001**	(28.3%)
Options	1,249,216	874,522	
RSUs	1,672,863	1,221,479	
Target Total Direct Compensation[4]	**3,849,271**	**2,996,770**	(22.1%)

(1) Represents annual base salary rate for the applicable year. 2020 base salary became effective March 2020.

(2) The 2020 amount reflects a target performance bonus of 55% of base salary earned. The actual 2020 performance bonus paid was $450,000, reflecting 138.1% of target performance bonus, based on the overall 2020 bonus pool funding percentage of 127.3% and Dr. Iannone's individual contributions to achieving both our quantitative and qualitative objectives for 2020. The compensation committee also considered Dr. Iannone's significant individual contributions to such achievement and outperformance of his research and development organization with respect to the corporate objectives. Dr. Iannone's 2019 target performance bonus was lower due his joining the company mid-2019. The actual bonus paid to Dr. Iannone for 2019 was prorated to reflect his hire date of May 29, 2019.

(3) The target equity compensation delivered (as presented in the chart) reflects the fair value of the awards as of the grant date, in accordance with ASC 718 as reported in the Grants of Plan-Based Awards Table.

(4) The compensation committee designed Dr. Iannone's target total direct compensation to be competitive compared to the market data, appropriate from an internal equity perspective and more heavily weighted towards equity compensation, in line with our pay-for-performance philosophy. The compensation committee determined it was appropriate to increase Dr. Iannone's base salary in an amount necessary to reflect his scope of responsibility and oversight of significant functions within the organization, as well as to maintain competitive positioning relative to the market data and the other NEOs.

Kim Sablich, Executive Vice President and General Manager, North America

	2019 Pay ($)(1)	2020 Pay ($)	Change (%)
Target Total Cash Compensation	**—**	**1,030,337**	—
Base Salary(2)		550,000	
Target Performance Bonus(3)		180,337	
Signing Bonus(4)		300,000	
Target Equity Compensation(5)	**—**	**3,751,761**	—
Options		1,616,987	
RSUs		2,134,774	
Target Total Direct Compensation(6)	**—**	**4,782,098**	—

(1) In May 2020, we entered into an employment offer letter with Ms. Sablich pursuant to which she agreed to serve as our Executive Vice President and General Manager, North America effective June 1, 2020.

(2) Represents annual base salary rate for 2020. Ms. Sablich's actual salary earned was lower due to her joining the company mid-2020.

(3) Reflects the target percentage of 55% of base salary earned for 2020, taking into account that Ms. Sablich was not employed the entire year. The actual 2020 performance bonus paid was $235,000, reflecting 130.3% of target performance bonus, based on the overall 2020 bonus pool funding percentage of 127.3% and Ms. Sablich's individual contributions to such achievement of her commercial organization with respect to the corporate objectives.

(4) Represents the cash signing bonus received by Ms. Sablich in 2020 in connection with her appointment as Executive Vice President and General Manager, North America. In determining the amount of the bonus, the compensation committee considered the inducement value in recruiting Ms. Sablich from her prior employer and compensatory value of cash and equity forfeited by Ms. Sablich in leaving her prior employer.

(5) Target equity compensation dollar amounts represent the grant date fair value of each stock option and RSU award, as applicable, and have been calculated in accordance with ASC 718 as reported in the Grants of Plan-Based Awards Table for 2020. See the Grants of Plan-Based Awards Table for the number of shares subject to each award.

(6) The compensation committee designed Ms. Sablich's target total direct compensation to be competitive compared to the market data, appropriate from an internal equity perspective and more heavily weighted towards equity compensation, in line with our pay-for-performance philosophy. In determining her compensation package, the compensation committee received advice from Radford to design a competitive, market-based compensation package appropriate for a senior executive with Ms. Sablich's skills and experience and her overall expected contribution to our business.

Redesign of 2021 Long-Term Incentive Program

In connection with our transformation into an innovative biopharmaceutical company, line of sight to a set of longer-term value drivers and multi-year goals around our strategic pathway to success came into clearer focus. It was with this focus, along with feedback from shareholders that we determined that 2021 was the appropriate time to adopt a new long-term incentive award design that we believe sets the foundation for sustained high performance and shareholder returns and strongly aligns pay to achievement of our longer-term strategic objectives.

Starting in 2021, approximately 50% of each NEO's aggregate annual equity compensation will be in the form of equity awards that vest based on achievement of performance goals. In early 2021, the compensation committee determined that it was in the best interests of the company and its shareholders to delay the 2021 performance share unit grants until the close of the GW Acquisition, as doing so would allow the compensation committee to select performance measures that reflected the combined company's financial and strategic priorities across the new integrated leadership team, thus providing the leadership team with a unifying compensation strategy for the post-close organization. In May 2021, the compensation committee granted a PSU to each NEO that will vest, if at all, following the completion of the applicable performance period on December 31, 2023, subject to the company's achievement of pre-established financial, strategic and relative shareholder return goals for the 2021 to 2023 performance period.

Additional Compensation Information

Ownership Guidelines for Executive Officers

We maintain share ownership guidelines for our CEO and certain other employees who serve on our executive committee, including our NEOs. Under the guidelines, which were amended in May 2018, these individuals are expected to own a number of the company's ordinary shares with a value equal to six times base salary (increased from three times base salary) for the company's Chief Executive Officer, two times base salary (increased from one times base salary) for each other member of the company's executive committee who is an officer for purposes of Section 16 of the Exchange Act, and one times base salary for each other member of the company's executive committee. The guidelines provide that the officers are expected to establish the minimum ownership levels within five years of first becoming subject to the guidelines (and, with respect to the increased amounts established by the amended guidelines, by the last day of 2021 for officers who were subject to the guidelines as of January 1, 2018). Mr. Cozadd was in compliance with the guidelines as of March 31, 2021 with his actual ownership constituting approximately 32.5 times his base salary (based on the value of shares owned as of March 31, 2021, using a 90-day trailing average price of $164.55 as of such date). Each of our other continuing NEOs has five years from the date of his or her appointment to comply with the guidelines.

Shares that count toward satisfaction of these guidelines include: shares owned outright by the individual (including RSUs that have vested but not yet settled, net of taxes); shares retained after an option exercise or issuance under another type of equity award granted under the company's equity incentive plans; shares retained after purchase under the ESPP; and shares held in trust for the benefit of the individual. The compensation committee has discretion to develop an alternative individual guideline or an alternative method of complying with the applicable individual guideline for an individual covered by the guidelines if compliance would place a significant hardship on such individual.

Change in Control Plan

Our compensation committee periodically reviews the terms of our change in control plan, including its "double-trigger" structure and benefits, against market data to ensure that the benefits we offer remain appropriate.

Only our executive officers who are employees of our U.S. affiliates are eligible to participate in the change in control plan, which includes all of our NEOs. Certain executive officers who are not employed by our U.S. affiliates receive comparable change in control benefits pursuant to their employment agreements. The compensation committee believes that the change in control benefits we provide are representative of market practice, both in terms of design and cost, and are sufficient to retain our current executive team and to recruit talented executive officers in the future. The terms of the change in control plan are described below under the heading "*Potential Payments upon Termination or Change in Control—Amended and Restated Executive Change in Control and Severance Benefit Plan*."

Equity Grant Timing and Equity Plan Information

Our equity incentive grant policy generally provides that all equity grants that are approved for executive officers will be granted on the second trading day following the filing date of our next quarterly or annual report filed under the Exchange Act that occurs after the date on which such grants are approved by our board of directors or compensation committee, as applicable. Accordingly, our equity incentive grant policy generally requires that grants to our executive officers, if any, be made shortly after we have released information about our financial performance to the public for the applicable annual or quarterly period, so that the market will have an opportunity to absorb the financial and other information included in our annual and periodic reports before such grants are awarded. As a result, the timing of equity awards is not coordinated in a manner that intentionally benefits our executive officers; rather, the policy is designed with the objective that the market price of our ordinary shares at the time of grant can generally be expected to reflect our then-current results and prospects. In addition, while our board of directors and compensation committee have discretionary authority to approve equity grants to our executive officers outside of the timing specified in our equity incentive grant policy, we do not in any event time the release of non-public information in coordination with grants of equity awards in a manner that intentionally benefits our executive officers.

We currently grant equity awards to the NEOs, including stock options and RSUs, under the 2011 Equity Incentive Plan, or the 2011 Plan. The 2011 Plan was adopted by Jazz Pharmaceuticals, Inc.'s board of directors and approved by Jazz Pharmaceuticals, Inc.'s stockholders in connection with their approval of the Azur Merger in December 2011 and was assumed by us upon the completion of the Azur Merger. Before the 2011 Plan was adopted, we granted stock options under our 2007 Equity Incentive Plan, or the 2007 Plan, which was adopted by Jazz Pharmaceuticals, Inc.'s board of directors and approved by Jazz Pharmaceuticals, Inc.'s stockholders in connection with Jazz Pharmaceuticals, Inc.'s initial public offering. Awards granted under the 2007 Plan continue to be governed by the terms of the 2007 Plan, but subsequent equity awards have been, and continue to be, awarded under the 2011 Plan. The 2011 Plan affords the compensation committee the flexibility to utilize a broad array of equity incentives and performance cash incentives in order to secure and retain the services of employees of our company and its subsidiaries and to provide long-term incentives that align the interests of employees with the interests of our shareholders.

Additional long-term equity incentives are provided through the ESPP. Pursuant to the ESPP, all eligible employees, including the NEOs, may allocate up to 15% of their base salary to purchase our stock at a 15% discount to the market price, subject to specified limits.

Accounting and Tax Considerations

Under ASC 718, the company is required to estimate and record an expense for each award of equity compensation (including stock options and RSUs) over the vesting period of the award. We record share-based compensation expense on an ongoing basis according to ASC 718. The compensation committee has considered, and may in the future consider, the grant of performance-based or other types of stock awards to executive officers in lieu of or in addition to stock option and time-based RSU grants in light of the accounting impact of ASC 718 and other considerations.

Under Section 162(m) of the Internal Revenue Code, or Section 162(m), compensation paid to each of the company's "covered employees" that exceeds $1 million per taxable year is generally non-deductible for tax purposes unless the compensation qualifies for certain grandfathered exceptions (including the "performance-based compensation" exception) for certain compensation paid pursuant to a written binding contract in effect on November 2, 2017 and not materially modified on or after such date.

Although the compensation committee will continue to consider tax implications as one factor in determining executive compensation, the compensation committee also looks at other factors in making its decisions and retains the flexibility to provide compensation for the company's named executive officers in a manner consistent with the goals of the company's executive compensation program and the best interests of the company and its stockholders, which may include providing for compensation that is not deductible by the company due to the deduction limit under Section 162(m). The compensation committee also retains the flexibility to modify

compensation that was initially intended to be exempt from the deduction limit under Section 162(m) if it determines that such modifications are consistent with the company's business needs.

Risk Assessment Concerning Compensation Practices and Policies

The compensation committee no less frequently than annually reviews the company's compensation policies and practices to assess whether they encourage employees to take inappropriate risks. After reviewing each of the company's compensation plans, and the checks and balances built into, and oversight of, each plan, in February 2020, the compensation committee determined that any risks arising from our compensation policies and practices for our employees are not reasonably likely to have a material adverse effect on our company as a whole. In addition, the compensation committee believes that the mix and design of the elements of executive compensation do not encourage management to assume excessive risks, and significant compensation decisions, as well as decisions concerning the compensation of the company's executive officers, include subjective considerations by the compensation committee or the board of directors, which restrain the influence of formulae or objective factors on excessive risk-taking. Finally, the mix of short-term compensation (in the form of salary and annual bonus, if any), and long-term compensation (in the form of stock options, PSUs and RSUs) also prevents undue focus on short-term results and helps align the interests of the company's executive officers with the interests of our shareholders.

Reconciliations of Non-GAAP Financial Measures

To supplement our financial results presented in accordance with U.S. generally accepted accounting principles (GAAP), we use certain non-GAAP (also referred to as non-GAAP adjusted) financial measures in this Compensation Discussion and Analysis. In particular, we present non-GAAP adjusted net income (and the related per share measure), which exclude from reported GAAP net income (and the related per share measure) certain items, as detailed in the reconciliation table that follows, adjust for the income tax effect of the non-GAAP adjustments and the income tax benefit related to an intra-entity intellectual property asset transfer.

We believe that each of these non-GAAP financial measures provides useful supplementary information to, and facilitates additional analysis by, investors and analysts. In particular, we believe that each of these non-GAAP financial measures, when considered together with our financial information prepared in accordance with GAAP, can enhance investors' and analysts' ability to meaningfully compare our results from period to period, and to identify operating trends in our business. In addition, these non-GAAP financial measures are regularly used by investors and analysts to model and track our financial performance. Our management also regularly uses these non-GAAP financial measures internally to understand, manage and evaluate our business and to make operating decisions, and compensation of our executive officers is based in part on certain of these non-GAAP financial measures, as discussed elsewhere in this Compensation Discussion and Analysis. Because these non-GAAP financial measures are important internal measurements for our management, we also believe that these non-GAAP financial measures are useful to investors and analysts since these measures allow for greater transparency with respect to key financial metrics we use in assessing our own operating performance and making operating decisions.

These non-GAAP financial measures are not meant to be considered in isolation or as a substitute for comparable GAAP measures; should be read in conjunction with our consolidated financial statements prepared in accordance with GAAP; have no standardized meaning prescribed by GAAP; and are not prepared under any comprehensive set of accounting rules or principles. In addition, from time to time in the future there may be other items that we may exclude for purposes of our non-GAAP financial measures; and we have ceased, and may in the future cease, to exclude items that we have historically excluded for purposes of our non-GAAP financial measures. For example, commencing in 2020, we no longer exclude upfront and milestone payments from non-GAAP adjusted net income (and the related per share measure). For purposes of comparability, non-GAAP adjusted financial measures for the year ended December 31, 2019 have been updated to reflect this change. Accordingly, such payments are not excluded from our non-GAAP financial measures for the years ended December 31, 2019 and 2020, as detailed in the reconciliation tables that follow. Likewise, we may determine to modify the nature of our adjustments to arrive at our non-GAAP financial measures. Because of the

non-standardized definitions of non-GAAP financial measures, the non-GAAP financial measures as used by us in this Compensation Discussion and Analysis have limits in their usefulness to investors and may be calculated differently from, and therefore may not be directly comparable to, similarly titled measures used by other companies.

Reconciliations of GAAP reported net income to non-GAAP adjusted net income (and the related per share measures) for the 2019 and 2020 annual periods are as follows (in millions, except per share amounts):

	2019	2020
GAAP reported net income	**$ 523.4**	**$ 238.6**
Intangible asset amortization	354.8	259.6
Share-based compensation expense	110.6	121.0
Impairment charge[1]	—	136.1
Acquired IPR&D asset acquisition[2]	48.3	—
Non-cash interest expense[3]	46.4	56.7
Loss on extinguishment of debt	—	4.5
Income tax effect of above adjustments	(85.9)	(112.5)
Income tax benefit related to intra-entity intellectual property asset transfer	(112.3)	—
Non-GAAP adjusted net income	$ 885.2	$ 704.0
GAAP reported net income per diluted share	**$ 9.09**	**$ 4.22**
Non-GAAP adjusted net income per diluted share	$ 15.38	$ 12.46
Weighted-average ordinary shares used in diluted per share calculations	**57.6**	**56.5**

Note: Amounts may not total due to rounding.

Explanation of Adjustments and Certain Line Items:

(1) Impairment charge related to our decision to stop enrollment in its Phase 3 clinical study of defibrotide for pVOD due to a determination by an Independent Data Monitoring Committee that it was highly unlikely that the study will reach its primary endpoint.

(2) Relates to the acquisition of Cavion, Inc. in the year ended December 31, 2019.

(3) Non-cash interest expense associated with debt discount and debt issuance costs.

Summary of Compensation

The following table sets forth certain summary information for the years indicated with respect to the compensation earned by the NEOs during fiscal years 2020, 2019 and 2018, as applicable.

SUMMARY COMPENSATION TABLE

Name and Principal Position	Year	Salary ($)[1]	Bonus ($)[2]	Stock Awards ($)[3]	Option Awards ($)[4]	Non-Equity Incentive Plan Compensation ($)[5]	All Other Compensation ($)[6]	Total ($)
Bruce C. Cozadd[7]	2020	1,085,123	—	5,881,195	4,210,661	1,381,400	14,921	12,573,300
Chairman and CEO	2019	1,014,415	—	7,001,495	5,379,925	1,304,500	13,302	14,713,637
	2018	979,285	—	5,204,786	4,265,610	980,300	13,152	11,443,133
Daniel N. Swisher, Jr.	2020	713,654	—	1,809,598	1,295,588	636,000	16,247	4,471,087
President and COO[8]	2019	667,308	—	1,960,419	1,506,379	560,000	13,302	4,707,407
	2018	608,173	125,000	2,532,058	2,075,162	400,000	12,948	5,753,341
Renée Galá[9]	2020	484,616	25,000	1,816,868	1,382,012	405,000	9,904	4,123,400
Executive Vice President and CFO								
Robert Ianonne[10]	2020	592,308	—	1,221,479	874,522	450,000	11,172	3,149,481
Executive Vice President, Research and Development and Chief Medical Officer	2019	313,077	205,000	1,672,863	1,249,216	245,000	8,405	3,693,560
Kim Sablich[11]	2020	327,885	300,000	2,134,774	1,616,987	235,000	6,598	4,621,245
Executive Vice President and General Manager, North America								

Note: Amounts may not total due to rounding.

(1) The dollar amounts in this column represent base salary earned during the indicated fiscal year. 2020 base salary rates were effective March 2020. For more information on salaries in 2020, see "*Compensation Discussion and Analysis—2020 Compensation Decisions for Our Named Executive Officers—Individual NEO Compensation Decisions*" above.

(2) The dollar amounts in this column represent cash signing bonuses paid to Mr. Swisher in 2018, Dr. Iannone in 2019, and each of Ms. Galá and Ms. Sablich in 2020.

(3) The dollar amounts in this column reflect the aggregate grant date fair value of all RSU awards granted during the indicated fiscal year computed in accordance with ASC 718, excluding the effect of estimated forfeitures. The grant date fair value of each RSU award is measured based on the closing price of our ordinary shares on the date of grant. These amounts do not necessarily correspond to the actual value recognized or that may be recognized by the NEOs.

(4) The dollar amounts in this column reflect the aggregate grant date fair value of all stock option awards granted during the indicated fiscal year. These amounts have been calculated in accordance with ASC 718, using the Black-Scholes option-pricing model and excluding the effect of estimated forfeitures. Assumptions used in the calculation of these amounts are included in the notes to our audited consolidated financial statements included in the company's 2020 Annual Report on Form 10-K. These amounts do not necessarily correspond to the actual value recognized or that may be recognized by the NEOs.

(5) The dollar amounts in this column represent the cash bonus awarded under the performance bonus plan for the indicated fiscal year. For more information on the cash bonus awards for 2020, see "*Compensation Discussion and Analysis—2020 Performance Bonus Program" and "Compensation Discussion and Analysis—2020 Compensation Decisions for Our Named Executive Officers*" above.

(6) The dollar amounts in this column for 2020 include group term life insurance premiums paid, matching contributions under the 401(k) Plan and a payment associated with an annual conference.

(7) Mr. Cozadd served as our interim principal financial officer from October 25, 2019 until Ms. Galá was appointed to serve as our CFO and assumed the duties and responsibilities of principal financial officer from Mr. Cozadd as of March 16, 2020.

(8) Mr. Swisher served as our Chief Operating Officer from January 2018 to May 2021.

(9) Ms. Galá was appointed our Executive Vice President and CFO as of March 16, 2020.

(10) Dr. Iannone was appointed our Executive Vice President, Research and Development as of May 29, 2019.

(11) Ms. Sablich was appointed our Executive Vice President and General Manager, North America as of June 1, 2020.

Grants of Plan-Based Awards

The following table shows, for the fiscal year ended December 31, 2020, certain information regarding grants of plan-based awards to the NEOs.

GRANTS OF PLAN-BASED AWARDS IN FISCAL 2020

Name	Award Type	Grant Date	Approval Date	Estimated Possible Payouts Under Non-Equity Incentive Plan Awards Target ($)[1]	All Other Stock Awards: Number of Shares of Stock or Units (#)[2]	All Other Option Awards: Number of Securities Underlying Options (#)[2]	Exercise or Base Price of Option Awards ($/Sh)[3]	Grant Date Fair Value of Stock and Option Awards ($)[4]
Bruce C. Cozadd	Annual Cash	—	—	1,085,123	—	—	—	—
	Annual Option	2/27/2020	2/11/2020	—	—	130,000	113.10	4,210,661
	Annual RSU	2/27/2020	2/11/2020	—	52,000	—	—	5,881,195
Daniel N. Swisher, Jr.	Annual Cash	—	—	499,558	—	—	—	—
	Annual Option	2/27/2020	2/11/2020	—	—	40,000	113.10	1,295,588
	Annual RSU	2/27/2020	2/11/2020	—	16,000	—	—	1,809,598
Renée Galá	Annual Cash	—	—	266,539	—	—	—	—
	Initial Option	5/7/2020	4/29/2020	—	—	41,500	109.45	1,382,012
	Initial RSU	5/7/2020	4/29/2020	—	16,600	—	—	1,816,868
Robert Iannone, M.D., M.S.C.E.	Annual Cash	—	—	325,769	—	—	—	—
	Annual Option	2/27/2020	2/11/2020	—	—	27,000	113.10	874,522
	Annual RSU	2/27/2020	2/11/2020	—	10,800	—	—	1,221,479
Kim Sablich	Annual Cash	—	—	180,337	—	—	—	—
	Initial Option	8/6/2020	7/29/2020	—	—	42,000	127.07	1,616,987
	Initial RSU	8/6/2020	7/29/2020	—	16,800	—	—	2,134,774

(1) This column sets forth the target bonus amount for each NEO for the year ended December 31, 2020 under the performance bonus plan. There are no thresholds or maximum bonus amounts for each individual officer established under the performance bonus plan. Target bonuses were set as a percentage of each NEO's base salary earned for the fiscal year ended December 31, 2020 and were 100% for Mr. Cozadd, 70% for Mr. Swisher, and 55% for each of Ms. Galá, Dr. Iannone and Ms. Sablich. The dollar value of the actual bonus award earned for the year ended December 31, 2020 for each NEO is set forth in the Summary Compensation Table above. As such, the amounts set forth in this column do not represent either additional or actual compensation earned by the NEOs for the year ended December 31, 2020. For a description of the performance bonus plan, see "*Compensation Discussion and Analysis—2020 Performance Bonus Program*" above.

(2) Annual stock options and RSU awards were granted under the 2011 Plan. Each of the annual stock option awards listed in the table above vest or vested as to 25% of the ordinary shares underlying the stock options upon the one year anniversary of the grant date and vest as to the remainder of the shares in 36 equal monthly installments thereafter. Each of the annual RSU awards vest in four equal annual installments on the anniversary of the vesting commencement date of March 5, 2020. In March 2020, Ms. Galá was appointed as Executive Vice President and CFO and in June 2020, Ms. Sablich was appointed as Executive Vice President and General Manager, North America, in connection with which they each received new hire grants of stock option and RSU awards, which were granted under the 2011 Plan. The initial stock option awards granted to Ms. Galá and Ms. Sablich vest as to 25% of the ordinary shares underlying the stock options upon the one year anniversary of their respective hire dates of March 16, 2020 for Ms. Galá and June 1, 2020 for Ms. Sablich and vest as to the remainder of the shares in 36 equal monthly installments thereafter. Each of the initial RSU awards granted to Ms. Galá and Ms. Sablich vest in four equal annual installments on the anniversary of the vesting commencement date of April 5, 2020 for Ms. Galá and June 5, 2020 for Ms. Sablich. As a general matter, the vested portion of stock options granted to the NEOs will expire three months after each NEO's last day of service, subject to extension upon certain termination situations, such as death or disability, and RSUs will cease vesting upon each NEO's last day of service. Stock option and RSU awards are subject to potential vesting acceleration as described below under the headings "*Description of Compensation Arrangements—Equity Compensation Arrangements—2011 Equity Incentive Plan*" and "*Potential Payments upon Termination or Change in Control—Amended and Restated Executive Change in Control Plan and Severance Benefit Plan*" below. See also "*Description of Compensation Arrangements—Equity Compensation Arrangements—2011 Equity Incentive Plan*" below for a general description of the material terms of the 2011 Plan.

(3) Stock options were granted with an exercise price equal to 100% of the fair market value on the date of grant which was $113.10 per share for the February 27, 2020 annual grants, $109.45 per share for the May 7, 2020 new hire grant to Ms. Galá, and $127.07 per share for the August 6, 2020 new hire grant to Ms. Sablich.

(4) The dollar amounts in this column represent the grant date fair value of each stock option and RSU award, as applicable, granted to the NEOs in 2020. These amounts have been calculated in accordance with ASC 718. The grant date fair value of each stock option is calculated using the Black-Scholes option-pricing model and excluding the effect of estimated forfeitures. Assumptions used in the calculation of these amounts are included in the notes to our audited consolidated financial statements included in the company's 2020 Annual Report on Form 10-K. The grant date fair value of each RSU award is measured based on the closing price of our ordinary shares on the date of grant.

Description of Compensation Arrangements

Executive Employment and Severance Agreements

We do not have employment agreements currently in effect with any of our NEOs. Like other employees, executive officers are eligible for annual salary increases, participation in the performance bonus plan and discretionary equity grants. We have employment agreements in effect with certain employees based outside of the United States.

From time to time, we have provided an offer letter in connection with the commencement of employment of an executive officer based in the United States, which describes such executive officer's initial terms of employment. For example, in February 2020, we provided an offer letter to Ms. Galá that included her initial base salary and a hiring bonus of $25,000 payable in connection with commencement of her employment, and in April 2020, we provided an offer letter to Ms. Sablich that included her initial base salary and a hiring bonus of $300,000 payable in connection with commencement of her employment. The employment of Ms. Galá and Ms. Sablich, as is the case for all of our employees based in the United States, is at-will and not governed by the terms of their offer letters. We do not have agreements currently in effect with any of our NEOs entitling such individuals to severance benefits (other than in connection with a change in control pursuant to our change in control plan described below).

Amended and Restated Executive Change in Control and Severance Benefit Plan

Each of the current NEOs is a participant in the change in control plan, a description of which is included below under the heading "*Potential Payments upon Termination or Change in Control—Amended and Restated Executive Change in Control and Severance Benefit Plan*."

Equity Compensation Arrangements

Since the Azur Merger, we have granted stock options and RSU awards to employees, including the NEOs, under the 2011 Plan. From the initial public offering of Jazz Pharmaceuticals, Inc. until the Azur Merger, we granted stock options to our employees, including some of the NEOs, under the 2007 Plan. For more information on our current equity compensation program and decisions regarding the grants of equity awards in 2020 for our NEOs, see "*Compensation Discussion and Analysis—2020 Compensation Decisions for Our Named Executive Officers*" above. The following is a brief summary of the material terms of each of our equity compensation plans.

2011 Equity Incentive Plan

The following is a brief summary of the material terms of the 2011 Plan, as amended and restated.

Types of Awards. The 2011 Plan provides for the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock awards, RSU awards, other stock awards, and performance awards that may be settled in cash, shares, or other property, which may be granted to employees, including officers.

Corporate Transactions. In the event of certain significant corporate transactions (as defined in the 2011 Plan and described below), our board of directors will have the discretion to take one or more of the following actions with respect to outstanding stock awards (contingent upon the closing or completion of such corporate transaction), unless otherwise provided in the stock award agreement or other written agreement with the participant or unless otherwise provided by our board of directors at the time of grant:

- arrange for assumption, continuation, or substitution of a stock award by a surviving or acquiring corporation (or its parent company);
- arrange for the assignment of any reacquisition or repurchase rights applicable to any shares issued pursuant to a stock award to the surviving or acquiring corporation (or its parent company);
- accelerate the vesting, in whole or in part, and exercisability of a stock award and provide for its termination if it is not exercised at or prior to the corporate transaction;
- arrange for the lapse of any reacquisition or repurchase rights applicable to any shares issued pursuant to a stock award;
- cancel or arrange for the cancellation of a stock award, to the extent not vested or exercised prior to the effective time of the corporate transaction, in exchange for such cash consideration, if any, as the board of directors may consider appropriate; or
- make a payment equal to the excess, if any, of (a) the value of the property that the participant would have received upon the exercise of the stock award over (b) any exercise price payable in connection with such exercise.

Our board of directors need not take the same action for each stock award or with regard to all participants.

For purposes of the 2011 Plan, a "corporate transaction" generally means (i) a sale or disposition of all or substantially all our assets or a sale or disposition of at least 90% of our outstanding securities; (ii) a merger, consolidation or similar transaction after which we are not the surviving corporation; or (iii) a merger, consolidation or similar transaction after which we are the surviving corporation but our ordinary shares are converted or exchanged into other property.

Change in Control. The board of directors has the discretion to provide additional acceleration of vesting and exercisability upon or after a change in control (as defined in the 2011 Plan and described below) as may be provided in a stock award agreement or any other written agreement between us or any of our affiliates and a participant. The forms of stock option agreement and RSU award agreement adopted by the board of directors under the 2011 Plan provide that in the event a participant's service relationship with us or a successor entity is terminated due to an involuntary termination without cause (as defined in the stock award agreement and as described below) within 12 months following, or one month prior to, the effective date of a change in control, the vesting (and in the case of stock options, exercisability) of the stock award will accelerate in full.

For purposes of the 2011 Plan and the forms of stock option agreement and RSU award agreement issued thereunder, a "change in control" generally means (i) a person or group acquires ownership of more than 30% of the combined voting power of our outstanding securities (other than directly from our company); (ii) certain compromises or arrangements sanctioned by the Irish courts, certain schemes, contracts or offers that have become binding on all of our shareholders, certain takeover bids, certain offers or reverse takeover transactions or a reorganization, merger, statutory share exchange, consolidation or similar transaction involving us, and (A) after which our shareholders do not own more than 50% of the combined voting power of the surviving entity or its parent in substantially the same proportion as their ownership of our outstanding voting securities immediately before the transaction, (B) a person or group acquires ownership of more than 30% of the combined voting power of the surviving entity or its parent, or (C) at least a majority of the members of the board of directors of the parent (or the surviving entity, if there is no parent) following such transaction are not incumbent board members (as defined in (v) below) at the time our board of directors approves the transaction; (iii) our shareholders or our board of directors approves a complete dissolution or liquidation of our company, or a complete dissolution or liquidation of our company otherwise occurs (except for a liquidation into a parent company); (iv) a sale, lease, exclusive license or other disposition of all or substantially all of our assets, other than to certain entities; or (v) individuals who were members of our board of directors on the date of adoption of the 2011 Plan (or members of our board of directors approved or recommended by a majority vote of such members still in office), referred to as "incumbent board members," cease to constitute at least a majority of our board of directors.

An "involuntary termination without cause" generally means that a participant's service relationship with us is terminated for any reason other than for the following reasons (and not upon a participant's death or disability): (i) participant's commission of any felony or crime involving fraud, dishonesty or moral turpitude under the laws of the United States or any state thereof (with respect to Irish participants, the participant's conviction for any criminal offense (other than an offense under any road traffic legislation in Ireland, the United Kingdom or elsewhere for which a fine or non-custodial penalty is imposed) or any offense under any regulation or legislation relating to insider dealing, fraud or dishonesty); (ii) participant's attempted commission of or participation in a fraud or act of dishonesty against us; (iii) participant's intentional, material violation of any contract or agreement with us or of any statutory duty owed to us; (iv) participant's unauthorized use or disclosure of our confidential information or trade secrets; or (v) participant's gross misconduct.

2007 Equity Incentive Plan

The following is a brief summary of the material terms of the 2007 Plan.

Types of Awards. The 2007 Plan provided for the grant of incentive stock options, nonstatutory stock options, restricted stock awards, RSU awards, stock appreciation rights, performance stock awards and other forms of equity compensation, which may be granted to employees, including officers, non-employee directors, and consultants. Incentive stock options were granted only to employees, including executive officers. Since the Azur Merger, all of the new grants under the 2007 Plan were granted to non-employee directors, vest ratably over service periods of one to three years and expire no more than 10 years after the date of grant.

Corporate Transactions. Pursuant to the 2007 Plan, in the event of a corporate transaction (as defined in the 2007 Plan and described below), the board of directors will have the discretion to take one or more of the following actions with respect to outstanding stock awards (contingent upon the closing or completion of such corporate transaction), unless otherwise provided in the stock award agreement or other written agreement with the participant or unless otherwise provided by our board of directors at the time of grant:

- arrange for assumption, continuation, or substitution of a stock award by a surviving or acquiring corporation (or its parent company);
- arrange for the assignment of any reacquisition or repurchase rights applicable to any shares issued pursuant to a stock award to the surviving or acquiring corporation (or its parent company);

- accelerate the vesting and exercisability of a stock award and provide for its termination if it is not exercised at or prior to the corporate transaction;
- arrange for the lapse of any reacquisition or repurchase rights applicable to any shares issued pursuant to a stock award;
- cancel or arrange for the cancellation of a stock award, to the extent not vested or exercised prior to the effective time of the corporate transaction, in exchange for such cash consideration as the board of directors may consider appropriate; or
- make a payment equal to the excess, if any, of (a) the value of the property that the participant would have received upon the exercise of the stock award over (b) any exercise price payable in connection with such exercise.

The board of directors need not take the same action for each stock award or with respect to all participants. For purposes of the 2007 Plan, a "corporate transaction" generally means (i) a sale or disposition of all or substantially all our assets or a sale or disposition of at least 90% of our outstanding securities; (ii) a merger, consolidation or similar transaction after which we are not the surviving corporation; or (iii) a merger, consolidation or similar transaction after which we are the surviving corporation but our ordinary shares are converted or exchanged into other property.

Change in Control. The board of directors has the discretion to provide additional acceleration of vesting and exercisability upon or after a change in control (as defined in the 2007 Plan and described below) as may be provided in a stock award agreement or any other written agreement between us or any of our affiliates and a participant. The forms of stock option agreement and RSU award agreement adopted by the board of directors under the 2007 Plan provide that in the event a participant's service relationship with us or a successor entity is terminated due to an involuntary termination without cause (as defined in the stock award agreement and as described below) within 12 months following, or one month prior to, the effective date of a change in control, the vesting (and in the case of stock options, exercisability) of the stock award will accelerate in full. For purposes of the 2007 Plan and the forms of stock option agreement and RSU award agreement issued thereunder, a "change in control" generally means (i) a person or group acquires ownership of more than 50% of the combined voting power of our outstanding securities (other than in connection with a financing or a repurchase program); (ii) a merger, consolidation or similar transaction involving us, after which our shareholders do not own more than 50% of the combined voting power of the surviving entity or its parent in substantially the same proportion as their ownership of our outstanding voting securities immediately before the transaction; (iii) our shareholders or our board of directors approves a complete dissolution or liquidation of our company, or a complete dissolution or liquidation of our company otherwise occurs (except for a liquidation into a parent company); (iv) a sale, lease, exclusive license or other disposition of all or substantially all of our assets, other than to certain entities; or (v) individuals who are members of our board of directors on the date of adoption of the 2007 Plan (or members of our board of directors approved or recommended by a majority vote of such members still in office) cease to constitute at least a majority of our board of directors.

The term "involuntary termination without cause" has a similar meaning as under the 2011 Plan, as described above.

2007 Employee Stock Purchase Plan

Additional long-term equity incentives are provided through the ESPP. The ESPP is intended to qualify as an "employee stock purchase plan" within the meaning of section 423 of the Internal Revenue Code, or the Code. Under the ESPP, all of our regular employees and employees of any of our parent or subsidiary companies designated by the board of directors as eligible to participate may participate and may contribute, normally through payroll deductions, up to 15% of their earnings up to a total of $15,000 per purchase period for the purchase of our ordinary shares under the ESPP. The ESPP is currently offered to our regular employees in Ireland, Canada and the United States, including the NEOs. The ESPP is implemented through a series of offerings of purchase rights to eligible employees. Under the ESPP, we may specify offerings with a duration of not more than 27 months, and may specify shorter purchase periods within each offering. Each offering will have one or more purchase dates on which our ordinary shares will be purchased for employees participating in the offering. Unless otherwise determined by the board of directors, ordinary shares are purchased for accounts of employees participating in the ESPP at a price per share equal to the lower of (a) 85% of the fair market value of an ordinary share on the first date of an offering or (b) 85% of the fair market value of an ordinary share on the date of purchase.

Performance Bonus Plan

We maintain a performance bonus plan to reward executive officers and other employees for successful achievement of company-wide performance objectives and individual contributions toward those objectives on an annual basis. More information regarding the performance bonus plan is provided above under the headings "*Compensation Discussion and Analysis—2020 Performance Bonus Program*" and "*Compensation Discussion and Analysis—2020 Compensation Decisions for Our Named Executive Officers*."

401(k) Plan

Our employees based in the United States are eligible to participate in the 401(k) Plan. The 401(k) Plan is intended to qualify as a tax-qualified plan under section 401 of the Code. Employee contributions are held and invested by the 401(k) Plan's trustee. The 401(k) Plan provides that each participant may contribute a portion of his or her pre-tax compensation, up to a statutory annual limit, which was $19,500 for employees under age 50, and $26,000 for employees age 50 and over in 2020. The 401(k) Plan also permits us to make discretionary contributions and matching contributions, subject to established limits and a vesting schedule. In 2013, we began making discretionary matching contributions, which for 2020, consisted of a match of 50% of up to the first 6% of eligible compensation contributed by each employee toward his or her 401(k) plan.

Additional Benefits

The NEOs are eligible to participate in our benefit plans generally available to all employees, as described in "*Compensation Discussion and Analysis—Key Components and Design of the Executive Compensation Program*."

Pension Benefits

Other than with respect to tax-qualified defined contribution plans such as the 401(k) Plan, the NEOs do not participate in any plan that provides for retirement payments and benefits, or payments and benefits that will be provided primarily following retirement.

Nonqualified Deferred Compensation

During the year ended December 31, 2020, the NEOs did not contribute to, or earn any amounts with respect to, any defined contribution or other plan sponsored by us that provides for the deferral of compensation on a basis that is not tax-qualified.

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth, for the fiscal year ended December 31, 2020, certain information regarding outstanding equity awards at fiscal year-end for the NEOs.

OUTSTANDING EQUITY AWARDS AT 2020 FISCAL YEAR-END TABLE

	Option Awards				Stock Awards	
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#)[1] Unexercisable	Option Exercise Price ($)	Option Expiration Date[2]	Number of Shares or Units of Stock That Have Not Vested (#)[3]	Market Value of Shares or Units of Stock That Have Not Vested ($)[4]
Bruce C. Cozadd	—	130,000[6]	113.10	2/26/2030	52,000[10]	8,582,600
	57,291	67,709[7]	140.03	2/27/2029	37,500[11]	6,189,375
	63,593	28,907[8]	140.67	2/29/2028	18,500[12]	3,053,425
	81,093	5,407[9]	136.18	3/1/2027	8,650[13]	1,427,683
	77,500	—	123.36	2/24/2026	—	—
	72,500	—	175.19	2/25/2025	—	—
	48,784[5]	—	166.62	2/26/2024	—	—
	73,961[5]	—	59.13	3/4/2023	—	—
	109,284[5]	—	46.83	8/8/2022	—	—
Daniel N. Swisher, Jr.	—	40,000[6]	113.10	2/26/2030	16,000[11]	2,640,800
	16,041	18,959[7]	140.03	2/27/2029	10,500[12]	1,733,025
	32,812	12,188[14]	140.67	2/29/2028	9,000[15]	1,485,450
Renée Galá	—	41,500[16]	109.45	5/6/2030	16,600[17]	2,739,830
Robert Iannone, M.D., M.S.C.E	—	27,000[6]	113.10	2/26/2030	10,800[11]	1,782,540
	12,072	18,428[18]	137.12	8/7/2029	9,150[19]	1,510,208
Kim Sablich	—	42,000[20]	127.07	8/5/2030	16,800[21]	2,772,840

(1) In addition to the specific vesting schedule for each stock award, each unvested stock award is subject to the general terms of the 2011 Plan or 2007 Plan, as applicable, including the potential for future vesting acceleration described above under the heading "*Description of Compensation Arrangements—Equity Compensation Arrangements*" as well as the potential vesting acceleration under the terms of the change in control plan described below under the heading "*Potential Payments upon Termination or Change in Control—Amended and Restated Executive Change in Control and Severance Benefit Plan*."

(2) As a general matter, stock options granted to NEOs expire on the day before the tenth anniversary of their grant date, or earlier in the event of an NEO's termination of service. In the event of an NEO's termination of service, stock options generally expire three months after such termination of service, subject to extension under limited circumstances such as if the sale of shares during such time was prohibited by our insider trading policy or if exercise would result in violation of securities registration requirements. For more information, see description under the heading "*Potential Payments upon Termination or Change in Control—Equity Compensation Plans*."

(3) Each award listed in this column represents an RSU award that vests in four equal annual installments on the anniversary of the applicable vesting commencement date.

(4) The market values of the RSU awards that have not vested are calculated by multiplying the number of shares underlying the RSU awards shown in the table by $165.05, the closing price of our ordinary shares on December 31, 2020.

(5) The number of shares reported reflects the transfer of beneficial ownership of a portion of the indicated stock option awards in 2015 to Mr. Cozadd's former spouse pursuant to a domestic relations order.

(6) The unexercisable shares subject to this stock option award as of December 31, 2020 vested with respect to 25% of the shares underlying the stock option on February 27, 2021, and the remainder vests monthly from March 27, 2021 to February 27, 2024.

(7) The unexercisable shares subject to this stock option award as of December 31, 2020 vest monthly from January 28, 2021 to February 28, 2023.

(8) The unexercisable shares subject to this stock option award as of December 31, 2020 vest monthly from January 1, 2021 to March 1, 2022.

Executive Compensation (continued)

(9) The unexercisable shares subject to this stock option award as of December 31, 2020 vest monthly from January 2, 2021 to March 2, 2021.

(10) RSUs awarded on February 27, 2020, vesting in equal annual installments over four years measured from the vesting commencement date of March 5, 2020.

(11) RSUs awarded on February 28, 2019, vesting in equal annual installments over four years measured from the vesting commencement date of March 5, 2019.

(12) RSUs awarded on March 1, 2018, vesting in equal annual installments over four years measured from the vesting commencement date of March 5, 2018.

(13) RSUs awarded on March 2, 2017, vesting in equal annual installments over four years measured from the vesting commencement date of March 5, 2017.

(14) The unexercisable shares subject to this stock option award as of December 31, 2020 vest monthly from January 3, 2021 to January 3, 2022.

(15) RSUs awarded on March 1, 2018, vesting in equal annual installments over four years measured from the vesting commencement date of January 3, 2018.

(16) The unexercisable shares subject to this stock option award as of December 31, 2020 vested with respect to 25% of the shares underlying the stock option on March 16, 2021, and the remainder vests monthly from April 16, 2021 to March 16, 2024.

(17) RSUs awarded on May 7, 2020, vesting in equal annual installments over four years measured from the vesting commencement date of April 5, 2020.

(18) The unexercisable shares subject to this stock option award as of December 31, 2020 vest monthly from January 29, 2020 to May 29, 2023.

(19) RSUs awarded on August 8, 2019, vesting in equal annual installments over four years measured from the vesting commencement date of June 5, 2019.

(20) The unexercisable shares subject to this stock option award as of December 31, 2020 vest with respect to 25% of the ordinary shares underlying the stock option on June 1, 2021, and the remainder vest monthly from July 1, 2021 to June 1, 2024.

(21) RSUs awarded on August 6, 2020, vesting in equal annual installments over four years measured from the vesting commencement date of June 5, 2020.

Option Exercises and Stock Vested

The following table provides information on RSUs vested and stock options exercised, including the number of shares acquired upon exercise and the value realized, determined as described below, for the NEOs in the year ended December 31, 2020.

	Option Awards		Stock Awards	
Name	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise ($)[1]	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting ($)[2]
Bruce C. Cozadd	6,895	823,125	38,150	4,770,984
Daniel N. Swisher, Jr.	—	—	8,000	1,093,154
Renée Galá	—	—	—	—
Robert Iannone, M.D., M.S.C.E	—	—	3,050	367,982
Kim Sablich	—	—	—	—

(1) The value realized on exercise is based on the difference between the closing price of our ordinary shares on the date of exercise and the applicable exercise price of those options, and does not represent actual amounts received by the NEOs as a result of the option exercises.

(2) The value realized on vesting is based on the number of shares underlying the RSUs that vested and the closing price of our ordinary shares on the vesting date.

Potential Payments upon Termination or Change in Control

Amended and Restated Executive Change in Control and Severance Benefit Plan

The change in control plan provides that, in the event that an executive's employment terminates due to an involuntary termination without cause or a constructive termination, in each case upon or within 12 months following a change in control (as such terms are defined in the change in control plan and described generally below), and assuming all of the other conditions of the change in control plan are met, each executive who is a participant in the change in control plan (including each of our NEOs) would be entitled to the following benefits under the change in control plan:

- A single, lump sum cash severance payment equal to the sum of: (i) the applicable base salary described below, multiplied by the applicable percentage set forth below; *plus* (ii) the product of (A) the applicable base salary, (B) the applicable bonus percentage described below and (C) the applicable percentage set forth below; *plus* (iii) the product of (A) the applicable base salary, (B) the applicable bonus percentage and (C) the quotient obtained by dividing the number of full months that an executive is employed in the year of the termination by 12.
  - The "applicable base salary" is the higher of the executive's base salary in effect (i) on the date of termination (without giving effect to any reduction in base salary that would constitute grounds for a constructive termination) or (ii) immediately prior to the change in control, without giving effect to any voluntary pay reduction taken by the executive during the 12 months preceding the date of termination or the change in control.
  - The "applicable percentage" is 200% for our CEO, executive chairman or president, 150% for senior vice presidents and above and 100% for vice presidents.
  - The "applicable bonus percentage" is the greater of (i) the highest amount of any annual bonus paid to the executive for either of the last two calendar years prior to (A) the date of termination or (B) the change in control, in each case expressed as a percentage of the executive's base salary for the applicable year, and (ii) the higher of the executive's target bonus for the calendar year in which (A) the termination occurs or (B) the change in control occurs, in each case expressed as a percentage of the executive's base salary for such year.
- Full payment of all of the applicable COBRA premiums for any health, dental or vision plan sponsored by us for a period of up to (i) 24 months for our CEO, executive chairman or president, (ii) 18 months for executive vice presidents and senior vice presidents, and (iii) 12 months for vice presidents, provided that the executive timely elects continued coverage.
- Acceleration in full of the vesting and exercisability, as applicable, of outstanding stock options and other equity awards held by the executive.

The following key terms are defined in the change in control plan:

- A "change in control" generally means: (i) a person or group acquires ownership of more than 30% of the combined voting power of our outstanding securities (other than directly from our company); (ii) certain compromises or arrangements sanctioned by the Irish courts, certain schemes, contracts or offers that have become binding on all of our shareholders, certain takeover bids, certain offers or reverse takeover transactions, or a reorganization, merger, statutory share exchange, consolidation or similar transaction involving us, after which our shareholders do not own more than 50% of the combined voting power of the surviving entity or its parent in substantially the same proportion as their ownership of our outstanding voting securities immediately before the transaction, or a person or group acquires ownership of more than 30% of the combined voting power of the surviving entity or its parent, or at least a majority of the members of the board of directors of the parent (or the surviving entity, if there is no parent) following such transaction are not incumbent board members (as defined in (v) below) at the time our board of directors approves the transaction; (iii) our shareholders or our board of directors approves a complete dissolution or liquidation of our company, or a complete dissolution or liquidation of our company otherwise occurs (except for a liquidation into a parent company); (iv) a sale, lease, exclusive license or other disposition of all or substantially all of our assets, other than to certain entities; or (v) individuals who were members of our board of directors as of February 10, 2016 (or members of our board of directors approved or recommended by a majority vote of such members still in office), referred to as "incumbent board members," cease to constitute at least a majority of the board of directors.
- An "involuntary termination without cause" generally means an executive's employment is terminated for any reason other than for the following reasons: (i) the executive's unauthorized use or disclosure of confidential information or trade secrets which causes material harm to us; (ii) the executive's material breach of any agreement with us (or the executive's material violation of any statutory duty owed to us) after an opportunity to cure; (iii) the executive's material failure to comply with our written policies or rules after an opportunity to cure; (iv) the executive's conviction or plea of guilty or no contest to any crime involving fraud, dishonesty or moral turpitude; (v) the executive's gross misconduct; (vi) the executive's continued failure to perform his or her assigned duties after notification; or (vii) the executive's failure to reasonably cooperate in good faith with any governmental or internal investigation of us or our directors, officers or employees. An "involuntary termination without cause" also includes an executive's termination of employment due to death or disability.
- A "constructive termination" generally means an executive resigns employment after any of the following actions are taken or events occur without the executive's written consent: (i) one or more reductions in the executive's base salary that results in a total reduction in the executive's base salary, as in effect immediately prior to the change in control or any higher base salary in effect following the change in control, by more than 10%; (ii) a relocation of the executive's principal place of employment that increases the executive's one-way commute by more than 35 miles; (iii) a substantial reduction in the executive's authority, duties or responsibilities that are in effect immediately prior to the change in control, provided that if the executive holds the same position but the size of the executive's employing entity or business unit has decreased significantly or our company or the executive's employing entity ceases to be a publicly-traded corporation, the executive's authority, duties and responsibilities will be considered to be substantially reduced; (iv) a reduction in the executive's title; or (v) a substantial increase in executive's required business travel as compared with the executive's required business travel prior to the change in control.

We benefit by requiring the executive to execute an effective general waiver and release of claims in order to be eligible to receive benefits under the change in control plan. All other benefits (such as life insurance, disability coverage and 401(k) Plan eligibility) will terminate as of the executive's termination date.

The change in control plan does not provide for the gross up of any excise taxes imposed by section 4999 of the Code. If any of the severance benefits payable under the change in control plan would constitute a "parachute payment" within the meaning of section 280G of the Code, subject to the excise tax imposed by section 4999 of the Code, the change in control plan provides for a best after-tax analysis with respect to such payments, under which the executive will receive whichever of the following two alternative forms of payment would result in executive's receipt, on an after-tax basis, of the greater amount of the transaction payment notwithstanding that all or some portion of the transaction payment may be subject to the excise tax: (i) payment in full of the entire amount of the transaction payment, or (ii) payment of only a part of the transaction payment so that the executive receives the largest payment possible without the imposition of the excise tax.

The executive would not receive benefits under the change in control plan in certain circumstances, including if (i) the executive voluntarily terminates employment with us to accept employment with another entity that is controlled, directly or indirectly, by us or is otherwise affiliated with us; (ii) the executive does not confirm in writing that he or she is subject to agreements with us relating to proprietary and confidential information and our code of conduct; or (iii) the executive does not return all company property. In addition, benefits would be terminated under the change in control plan if the executive willfully breaches his or her agreements with us relating to proprietary and confidential information or our code of conduct.

The structure and amount of benefits provided under the change in control plan are intended to balance our goals of attracting and retaining highly qualified individuals, providing the appropriate incentive for such individuals to perform in the best interests of our shareholders and maintaining responsible pay practices. Our compensation committee periodically reviews market data to gain a general understanding of the change in control benefits offered by our competitors and reviews the benefits offered under the change in control plan against such market data to ensure that the benefits under the change in control plan remain appropriate.

Equity Compensation Plans

The 2011 Plan and 2007 Plan and award agreements thereunder provide for potential vesting acceleration upon an executive's termination in connection with a change in control and, at the discretion of the board of directors, upon certain change in control events, as further described above under the heading "*Description of Compensation Arrangements—Equity Compensation Arrangements*." In addition, under the terms of the 2011 Plan and 2007 Plan and the option award agreements thereunder, the vested portion of stock options granted to the NEOs will generally expire three months after the applicable NEO's termination of service, subject to extension under limited circumstances such as if the sale of shares during such time was prohibited by our insider trading policy or if exercise would result in violation of securities registration requirements. We refer to the period following the NEO's termination during which he or she can continue to exercise his or her vested stock options as the post-termination exercise period. However, in termination situations involving the death or disability of an NEO, the post-termination exercise period is generally extended up to 12 months in connection with a termination due to disability and up to 18 months in connection with a termination due to death. As the value of such extended post-termination exercise periods is not quantifiable, such value is not included in the table below.

Potential Payments upon Termination or Change in Control Table

The following table estimates the potential severance payments and benefits under the change in control plan to which the NEOs would have been entitled in connection with specified termination events, calculated as if each NEO's employment had terminated as of December 31, 2020. In addition, the table sets forth the amounts to which the NEOs would have been entitled under the 2011 Plan and 2007 Plan if, upon a corporate transaction or change in control transaction, the board of directors had exercised its discretion to accelerate the vesting and exercisability of stock options and the vesting of RSU awards, and such event had occurred on December 31, 2020.

There are no other agreements, arrangements or plans that entitle any NEOs to severance, perquisites or other benefits upon termination of employment or a change in control. For purposes of the table below, we have assumed that none of the potential severance benefits payable under the change in control plan would be subject to the excise tax imposed by section 4999 of the Code and therefore would not be reduced in accordance with the terms of the change in control plan.

POTENTIAL PAYMENTS UPON TERMINATION OR CHANGE IN CONTROL AS OF DECEMBER 31, 2020

Name	Benefit	Involuntary Termination Without Cause or Constructive Termination in Connection with a Change of Control($)[1]	2011 Plan and 2007 Plan—Certain Corporate Transactions($)[2]
Bruce C. Cozadd	Lump Sum Cash Severance Payment	5,253,000	—
	COBRA Payments	80,106	—
	Vesting Acceleration[3]	28,561,503	28,561,503
	Benefit Total	33,894,609	28,561,503
Daniel N. Swisher, Jr.	Lump Sum Cash Severance Payment	2,829,000	—
	COBRA Payments	80,106	—
	Vesting Acceleration[3]	8,708,769	8,708,769
	Benefit Total	11,617,875	8,708,769
Renée Galá	Lump Sum Cash Severance Payment	1,642,500	—
	COBRA Payments	60,079	—
	Vesting Acceleration[3]	5,047,228	5,047,228
	Benefit Total	6,749,807	5,047,228
Robert Iannone, M.D., M.S.C.E	Lump Sum Cash Severance Payment	1,653,125	—
	COBRA Payments	57,168	—
	Vesting Acceleration[3]	5,210,090	5,210,090
	Benefit Total	6,920,383	5,210,090
Kim Sablich	Lump Sum Cash Severance Payment	1,455,208	—
	COBRA Payments	57,168	—
	Vesting Acceleration[3]	4,367,998	4,367,998
	Benefit Total	5,880,374	4,367,998

(1) These benefits would be payable under the change in control plan if the involuntary termination without cause or constructive termination occurred upon or within 12 months following a change in control and assuming such termination took place on December 31, 2020. The forms of stock option and RSU agreements under the 2011 Plan and the 2007 Plan provide for the same vesting acceleration benefit as shown here under the change in control plan, and therefore no separate vesting acceleration benefit is listed. Pursuant to the change in control plan, an involuntary termination without cause also includes an individual's death or disability.

(2) These benefits would be payable under the 2011 Plan and the 2007 Plan if, upon a corporate transaction event, the board of directors exercised its discretion to accelerate the vesting and exercisability of outstanding stock options and RSU awards, assuming the vesting acceleration took place on December 31, 2020. For a description of the potential vesting acceleration provisions in the 2011 Plan and the 2007 Plan, see "Description of Compensation Arrangements—Equity Compensation Arrangements" above.

(3) The value of stock option and RSU award vesting acceleration is based on the closing price of $165.05 per ordinary share on December 31, 2020, minus, in the case of stock options, the exercise price of the unvested stock option shares subject to acceleration.

Pay Ratio Disclosure

Under SEC rules, we are required to calculate and disclose the annual total compensation of our median employee, as well as the ratio of the annual total compensation of our median employee as compared to the annual total compensation of our CEO, or our CEO pay ratio. Consistent with the process adopted for 2019, to identify our median employee for 2020, we used the following methodology:

- To determine our total population of employees, we included all full-time, part-time, regular and temporary employees as of October 1, 2020.
- To identify our median employee from our employee population, we calculated the annual target amount of each employee's 2020 base salary (using a reasonable estimate of the hours worked and no overtime for hourly employees) and bonus or commission, as applicable, and added the estimated value of all equity awards granted during 2020. For purposes of base salaries, bonuses and commissions, we used an estimate based on the rates in effect on October 1, 2020. To estimate the value of stock options, we multiplied the number of shares subject to each stock option by the estimated per share Black-Scholes value based on assumptions disclosed in our 2020 Annual Report on Form 10-K, and to estimate the value of other equity awards, we used the same methodology we use for reporting the value of equity awards granted to our NEOs in our Summary Compensation Table.
- In making this determination, we annualized the base salaries, bonuses and commissions of employees who were employed by us for less than the entire calendar year.
- Compensation paid in foreign currencies was converted to U.S. dollars based on the average daily exchange rates for the year to date period ending on October 1, 2020.

Using this approach, we determined our median employee and then calculated the annual total compensation of this employee for 2020 in accordance with the requirements of the Summary Compensation Table.

For 2020, the median of the annual total compensation of our employees (other than our CEO) was $234,935.46 and the annual total compensation of our CEO, as reported in our Summary Compensation Table, was $12,573,300. Based on this information, the ratio of the annual total compensation of our CEO to the median of the annual total compensation of all employees was 54 to 1.

The CEO pay ratio above represents our reasonable estimate calculated in a manner consistent with SEC rules and applicable guidance. SEC rules and guidance provide significant flexibility in how companies identify the median employee, and each company may use a different methodology and make different assumptions particular to that company. As a result, and as explained by the SEC when it adopted these rules, in considering the pay ratio disclosure, shareholders should keep in mind that the rule was not designed to facilitate comparisons of pay ratios among different companies, even companies within the same industry, but rather to allow shareholders to better understand and assess each particular company's compensation practices and pay ratio disclosures.

Neither the compensation committee nor our management used our CEO pay ratio measure in making compensation decisions.

DIRECTOR COMPENSATION

Non-Employee Director Compensation Policy

Overview of Director Compensation. Our non-employee directors receive cash compensation and equity compensation for their service on the board of directors. The compensation committee reviews the compensation of our non-employee directors periodically and recommends changes to the board of directors when it deems appropriate. To assist with the compensation committee's and the board of directors' review, the compensation committee's external compensation consultant prepares a comprehensive annual assessment of our non-employee director compensation program. The assessment includes benchmarking director compensation against the same 2020 peer group used for executive compensation decision-making, an update in recent trends in director compensation and a review of related corporate governance best practices. We target compensation for service on our board of directors and committees generally at the 50th percentile for board service at companies in our peer group of companies.

Non-Employee Director Compensation Policy. Our non-employee director compensation policy, or director compensation policy, was originally approved by our board of directors in May 2013 and has been amended as follows: in August 2013 to, among other things, provide for cash retainers for the chairperson and members of the transaction committee; in May 2014 to provide for compensation to our Lead Independent Director and revise the number of initial and continuing equity grants; in October 2014 to provide for a tax equalization payment on any Irish tax that may be paid on company reimbursement of reasonable travel, lodging and meal expenses related to service on the board of directors; in April 2015 to revise the number of initial and continuing equity grants; in May 2016 to increase the annual retainer for service as a member of our board of directors, increase the annual retainer for service as our Lead Independent Director and revise the number of initial and continuing RSU awards; in May 2018 to replace the fixed number of initial and continuing option and RSU awards with a specified grant date dollar value; in July 2020 to revise the vesting schedule for continuing option grants and provide an annual limit on compensation payable to a director; and in April 2021 to eliminate stock options from the equity awards granted to our non-employee directors and reduce the size of initial grants made to new directors. The automatic initial and continuing equity awards are granted under the Amended and Restated 2007 Non-Employee Directors Stock Award Plan, or 2007 Directors Plan.

Limit on Director Compensation. In any case, the aggregate value of all compensation granted or paid, as applicable, to any non-employee director with respect to any period commencing on the date of the annual general meeting of our shareholders for a particular year and ending on the day immediately prior to the date of the annual general meeting of our shareholders for the subsequent year, including equity awards granted and cash fees paid by us to the non-employee director, will not exceed (i) $750,000 in total value or (ii) in the event such non-employee director is first appointed or elected to the board of directors during that same period, $1,350,000 in total value.

Cash Compensation. Pursuant to our director compensation policy, each non-employee director was entitled to receive the following cash compensation for board services, as applicable, for 2020:

- a $60,000 annual retainer for service as a member of our board of directors (paid quarterly);
- a supplemental $50,000 annual retainer for service as the Lead Independent Director (paid quarterly);
- a supplemental annual retainer for the chairs of the following board committees in the following amounts: $25,000 for the chairperson of the audit committee, $22,500 for the chairperson of the compensation committee, $20,000 for the chairperson of the nominating and corporate governance committee and $22,500 for the chairperson of the transaction committee (each paid quarterly); and
- a supplemental annual retainer for each member of the following board committees other than the chairs, in the following amounts: $15,000 for service as a member of the audit committee, $12,500 for service as a member of the compensation committee, $10,000 for service as a member of the nominating and corporate governance committee and $12,500 for service as a member of the transaction committee (each paid quarterly).

Director Compensation (continued)

Equity Compensation—Initial Grants. Under the director compensation policy in effect during 2020, each individual who first became a non-employee director was automatically granted the following, with an aggregate grant date value of approximately $600,000: (a) an initial option to purchase ordinary shares that vests with respect to one-third of the shares on the first anniversary of the date of such individual's election or appointment to the board of directors, and, with respect to the balance, in a series of 24 successive equal monthly installments thereafter and (b) an initial RSU award that vests in equal annual installments over three years from the date of such individual's election or appointment to the board of directors, subject in each case to the non-employee director's continuous service through such dates. If a non-employee director does not stand for reelection at an annual general meeting of our shareholders in the year in which his or her term expires or otherwise resigns effective at an annual general meeting of our shareholders and, in either case, the non-employee director's continuous service terminates at such meeting, then effective as of the date of such meeting, any unvested portion of the initial option award will become vested and exercisable, and any unvested portion of the initial RSU award will become vested, in each case with respect to the portion of the award that would have vested through the anniversary of the award's vesting commencement date in the year of that meeting. In April 2021, our board of directors approved eliminating the initial option and initial RSU award described above, and instead, approved each new non-employee director receiving an automatic annual grant in the form of an RSU having a value of $400,000, prorated based on the number of months from the date of appointment until the next annual general meeting of shareholders.

Equity Compensation—Continuing Grants. Under the director compensation policy in effect during 2020, each continuing non-employee director was automatically granted the following continuing grants in connection with each annual general meeting, with an aggregate grant date value of approximately $400,000: (a) a continuing option to purchase ordinary shares that vests in full on the first anniversary of the annual general meeting of our shareholders in the year the option is granted and (b) a continuing RSU award that vests in full on the first anniversary of the annual general meeting of our shareholders in the year the RSU award is granted, subject in each case to the non-employee director's continuous service through such dates. If a director is elected or appointed as a director for the first time other than at an annual general meeting, in order to receive automatic continuing grants, the director must have first joined the board of directors at least four calendar months before the date of the applicable annual general meeting. If a director is elected or appointed as a director for the first time at an annual general meeting, the director will not receive automatic continuing grants for such meeting.

Equity Compensation—Grant Date. The grant date of these equity awards is the second trading day following the filing date of our next quarterly or annual report filed under the Exchange Act that occurs after the date the director first joined our board of directors (with respect to the automatic initial option and RSU awards) or the date of our annual general meeting (with respect to the automatic continuing option and RSU awards). The other terms and conditions applicable to equity awards made to our non-employee directors are included below under the heading "*Equity Compensation Plans*."

Equity Compensation—Methodology to Determine Size of Grant. For 2020, the board of directors intended to deliver approximately 50% of the potential value of each director's equity compensation in the form of a stock option grant and 50% of the potential value in the form of an RSU grant. To allocate such value and determine the share amounts underlying each grant, we first determined a number of "stock option equivalents" by multiplying our average closing share price for the 90 calendar days preceding and including the grant date by the percentage obtained by dividing the value of a stock option using the Black-Scholes option pricing model by the 90-day average share price. The stock option equivalents were then divided by two to determine the number of shares subject to each stock option. The number of shares subject to each stock option was further divided by 2.5 to determine the number of shares subject to each RSU. This methodology was intended to mitigate dilution by reflecting the greater value of receiving shares at full value without the payment of an exercise price. A 90-day average share price was used, rather than a single day share price, in order to provide a more stabilized share value less susceptible to possible swings in the market. This process can result in the actual reported grant date value of an award being higher or lower than the intended value approved by the board of directors. Starting in April 2021, the actual share amounts underlying each RSU granted will be determined by dividing the intended grant date value by the company's 30-day average share price.

Equity Compensation—Additional Vesting Terms. If a non-employee director does not stand for reelection at an annual general meeting of our shareholders in the year in which his or her term expires or otherwise resigns effective at an annual general meeting of our shareholders and, in either case, the non-employee director's continuous service terminates at such meeting, then effective as of the date of such meeting, any unvested portion of the continuing option award will become vested and exercisable in full and any unvested portion of a continuing RSU award will become vested in full.

Travel and Other Reasonable Expenses. In addition, our non-employee directors are reimbursed for travel and other reasonable expenses incurred in attending board or committee meetings, as are our employees who serve as directors. If any reimbursement payment is subject to tax imposed by the Irish Revenue Commissioners, each non-employee director is also entitled to a tax equalization payment in order to allow them to retain the full reimbursement payment. There were no such tax equalization payments made to any of our non-employer director with respect to any reimbursement payments in 2020.

Directors Continuing Education

In furtherance of our ongoing commitment to the continuing education of our directors, our nominating and corporate governance committee adopted a policy for the reimbursement of director continuing education in February 2013, as amended in February 2014. Under this policy, we will pay or reimburse each director for enrollment fees and reasonable expenses incurred in connection with attending and participating each year in one director continuing education program and in one healthcare industry continuing education program, each sponsored by an outside provider.

Directors Deferred Compensation Plan

In May 2007, the Jazz Pharmaceuticals, Inc. board of directors adopted the Directors Deferred Compensation Plan, which was amended and restated in August 2010. The Directors Deferred Compensation Plan, as amended and restated, is referred to in this proxy statement as the Directors Deferred Plan. We continued and assumed the Directors Deferred Plan in connection with the Azur Merger. The Directors Deferred Plan allowed each non-employee director to elect to defer receipt of all or a portion of his or her annual retainer fees to a future date or dates. Amounts deferred under the Directors Deferred Plan were credited as our ordinary shares to a phantom stock account, and the number of shares credited was based on the amount of the retainer fees deferred divided by the market value of our ordinary shares on the first trading day of the first open window period following the date the retainer fees were deemed earned. On the tenth business day following the day of separation from the board of directors or the occurrence of a change in control, or as soon thereafter as practical once the non-employee director has provided the necessary information for electronic deposit of the deferred shares, each non-employee director was entitled to receive (or to commence receiving, depending upon whether the director had elected to receive distributions from his or her phantom stock account in a lump sum or in installments over time) a distribution from his or her phantom stock account in our ordinary shares.

Since the closing of the Azur Merger we had not permitted our non-employee directors to defer any annual retainer fees under the Directors Deferred Plan. On October 31, 2019, our board of directors approved the termination of the Directors Deferred Plan, and all outstanding phantom stock was distributed to each applicable non-employee director in November 2020.

Ownership Guidelines for Directors

We maintain share ownership guidelines for our non-employee directors, originally adopted in February 2013 and amended in May 2018. Under the guidelines, giving effect to an amendment in May 2018, each non-employee director is expected to own a number of the company's ordinary shares with a value equal to five times his or her annual cash retainer (increased from three times the annual cash retainer prior to May 2018). The guidelines provide that the individuals subject to the guidelines are expected to establish the minimum ownership levels within five years of first becoming subject to the guidelines (and, with respect to the amended guidelines in May 2018, by the last day of 2021 for individuals subject to the guidelines as of January 1, 2018). As of March 31, 2021, each non-employee director was in compliance with his or her share ownership requirement under the

applicable guidelines, except for Ms. O'Riordan who joined our board of directors in February 2019 and, accordingly, has five years from her appointment, or until 2024, to comply with the guidelines, and Ms. Cook and Dr. Smith who joined our board of directors in December 2020 and, accordingly, have five years from their appointment, or until 2025, to comply with the guidelines.

Equity Compensation Plans

The 2007 Directors Plan, which was initially adopted by the Jazz Pharmaceuticals, Inc. board of directors and approved by the Jazz Pharmaceuticals, Inc. stockholders in connection with its initial public offering, was continued and assumed by us upon the consummation of the Azur Merger. The automatic initial and continuing stock awards under our director compensation policy described above are granted under the 2007 Directors Plan.

With respect to options granted under the 2007 Directors Plan and 2007 Plan, if a non-employee director's service relationship with us or any of our affiliates, whether as a non-employee director or subsequently as our employee, director or consultant or that of any of our affiliates, ceases for any reason other than disability or death, or, with respect to options granted under the 2007 Directors Plan only, after any 12-month period following a change in control, the optionee may exercise any vested options for a period of three months following the cessation of service. If such optionee's service relationship with us, or any of our affiliates, ceases due to disability or death (or an optionee dies within a certain period following cessation of service), the optionee or a beneficiary may exercise the option for a period of 12 months in the event of disability, and 18 months in the event of death. With respect to options granted under the 2007 Directors Plan, if such optionee's service terminates within 12 months following a specified change in control transaction, the optionee may exercise any vested portion of the option for a period of 12 months following the effective date of such a transaction. The option term may be extended in the event that exercise of the option following termination of service is prohibited by applicable securities laws. In no event, however, may an option be exercised beyond the expiration of its term.

With respect to RSU awards granted under the 2007 Directors Plan and 2007 Plan, if a non-employee director's service relationship with us or any of our affiliates, whether as a non-employee director or subsequently as our employee, director or consultant or that of any of our affiliates, ceases for any reason, any RSU awards that were unvested as of the date of such termination will be forfeited.

In the event of certain significant corporate transactions (which generally have a meaning similar to "corporate transaction" under the 2011 Plan), all outstanding awards under the 2007 Directors Plan may be assumed, continued or substituted for by any surviving or acquiring entity (or its parent company). If the surviving or acquiring entity (or its parent company) elects not to assume, continue or substitute for such awards, then (a) with respect to any such awards that are held by participants then performing services for us or our affiliates, the vesting and exercisability of such awards will be accelerated in full and such awards will be terminated if not exercised (if applicable) prior to the effective date of the corporate transaction and (b) all other outstanding awards will terminate if not exercised prior to the effective date of the corporate transaction. The board of directors may also provide that the holder of an outstanding award not assumed in the corporate transaction will surrender such award in exchange for a payment equal to the excess of (i) the value of the property that the holder would have received upon exercise of the award, over (ii) the exercise price otherwise payable in connection with the exercise. In addition, the vesting and exercisability of awards under the 2007 Directors Plan held by non-employee directors who are either required to resign their position as a condition of a specified change in control transaction (which generally has a similar meaning as a "change in control" under the 2011 Plan) or are removed from their position in connection with such a change in control will be accelerated in full.

The treatment of outstanding options and RSU awards under the 2007 Plan in the event of certain significant corporate transactions or a specified change in control transaction is described above under the heading "*Executive Compensation—Description of Compensation Arrangements—Equity Compensation Arrangements—2007 Equity Incentive Plan*."

2020 Equity Grants

In accordance with our non-employee director compensation policy described above, we made automatic continuing grants to each of our non-employee directors, except Ms. Cook and Dr. Smith, as a result of their continuing on the board of directors through our annual general meeting in July 2020, which continuing grants were comprised of an option to purchase 6,765 ordinary shares and an RSU award covering 2,705 ordinary shares. All options and RSUs granted to non-employee directors during 2020 were granted under the 2007 Directors Plan.

Director Compensation Table

The following table sets forth certain information with respect to the compensation of all of our non-employee directors for the fiscal year ended December 31, 2020.

Mr. Cozadd, our Chairman and CEO, is not listed in the following table because he is our employee. Mr. Cozadd's compensation is described under "*Executive Compensation*." Mr. Cozadd received no additional compensation for serving on our board of directors in 2020.

DIRECTOR COMPENSATION FOR FISCAL 2020

Name	Fees Earned Or Paid in Cash ($)[1]	Stock Awards ($)[2][4]	Option Awards ($)[3][4]	All Other Compensation ($)	Total ($)
Paul L. Berns[5]	72,500	343,724	260,450	—	676,675
Jennifer Cook[6]	5,000	—	—	—	5,000
Patrick G. Enright	87,500	343,724	260,450	—	691,675
Peter Gray	97,500	343,724	260,450	—	701,675
Heather Ann McSharry	107,500	343,724	260,450	—	711,675
Seamus Mulligan	82,500	343,724	260,450	—	686,675
Kenneth W. O'Keefe	75,000	343,724	260,450	—	679,175
Anne O'Riordan	75,000	343,724	260,450	—	679,175
Norbert G. Riedel, Ph.D.	95,000	343,724	260,450	—	699,175
Elmar Schnee[7]	82,500	343,724	260,450	—	686,675
Mark D. Smith, M.D.[6]	5,000	—	—	—	5,000
Catherine A. Sohn, Pharm.D.	82,500	343,724	260,450	—	686,675
Rick E Winningham	120,000	343,724	260,450	—	724,175

Note: Amounts may not total due to rounding.

(1) The dollar amounts in this column represent each non-employee director's actual annual cash retainer earned for board services in 2020, which is equal to the aggregate of his or her annual retainer of $60,000 plus his or her annual retainers for service on one or more board committees, and for Mr. Winningham, for service as Lead Independent Director. Each non-employee director's total fees were earned and payable in four quarterly installments subject to the non-employee director's continuous service at the end of each quarter. Fees paid to each of Mses. McSharry and O'Riordan and Messrs. Gray, Mulligan and Schnee were paid in Euro. The conversion to U.S. dollars was calculated based on the average exchange rate for each quarter as reported by the OANDA Corporation.

(2) The dollar amounts in this column reflect the aggregate grant date fair value of RSU awards computed in accordance with ASC 718. The grant date fair value of each RSU award is measured based on the closing price of our ordinary shares on the date of grant. These amounts do not necessarily correspond to the actual value recognized or that may be recognized by the non-employee directors.

(3) The aggregate number of shares subject to outstanding stock options and RSU awards held by the non-employee directors listed in the table above as of December 31, 2020 was as follows: 37,850 shares subject to outstanding stock options and 2,705 shares subject to outstanding RSUs for each of Messrs. Berns and Mulligan; 15,305 shares subject to outstanding stock options and 2,705 shares subject to outstanding RSUs for Mr. Enright; 28,850 shares subject to outstanding stock options and 2,705 shares subject to outstanding RSUs for each of Dr. Sohn and Mr. Winningham; 33,350 shares subject to outstanding stock options and 2,705 shares subject to outstanding RSUs for Mr. O'Keefe; 36,850 shares subject to outstanding stock options and 2,705 shares subject to outstanding RSUs for each of

Director Compensation (continued)

Ms. McSharry, Mr. Gray and Dr. Riedel; 30,550 shares subject to outstanding stock options and 2,705 shares subject to outstanding RSUs for Mr. Schnee; and 18,670 shares subject to outstanding stock options and 4,598 shares subject to outstanding RSUs for Ms. O'Riordan. There were no shares subject to outstanding stock options or shares subject to outstanding RSUs for Ms. Cook and Dr. Smith as of December 31, 2020.

(4) The dollar amounts in this column represent the aggregate grant date fair value of each stock option award granted to our non-employee directors in 2020. These amounts have been calculated in accordance with ASC 718, using the Black-Scholes option-pricing model and excluding the effect of estimated forfeitures. Assumptions used in the calculation of these amounts are included in the notes to our audited consolidated financial statements included in the company's 2020 Annual Report on Form 10-K. These amounts do not necessarily correspond to the actual value recognized or that may be recognized by the non-employee directors.

(5) Mr. Berns notified our board of directors of his intention to resign as a director, and his resignation will be effective as of or prior to the annual meeting.

(6) Ms. Cook and Dr. Smith joined our board of directors effective December 1, 2020.

(7) Mr. Schnee is not standing for re-election to our board of directors and his term of office will expire at the annual meeting.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Policy and Procedures for Review of Related Party Transactions

We have adopted a Related Party Transaction Policy that sets forth our procedures for the identification, review, consideration and approval or ratification of "related-person transactions." For purposes of our policy, a "related-person transaction" is a transaction, arrangement or relationship (or any series of similar transactions, arrangements or relationships) in which we are, were or will be a participant, and the amount involved exceeds $120,000, and any "related person" had, has or will have a direct or indirect material interest (other than solely as a result of being a director or a beneficial owner of less than 10% of any class of a company's voting securities). Transactions involving compensation for services provided to us as an employee or director are not covered by this policy. A "related person" is any executive officer, director or beneficial owner of more than 5% of any class of our voting securities, including any of their immediate family members and any entity owned or controlled by such persons.

Under the policy, if a transaction has been identified as a related-person transaction (including any transaction that was not a related-person transaction when originally consummated or any transaction that was not initially identified as a related-person transaction prior to consummation), our management must present information regarding the related-person transaction to our audit committee (or, if audit committee approval would be inappropriate, to another independent body of our board of directors) for review, consideration and approval or ratification. The presentation must include a description of, among other things, the material facts, the interests, direct and indirect, of the related person(s), the benefits to us of the transaction and whether the transaction is on terms that are comparable to the terms available to or from, as the case may be, an unrelated third party or to or from employees generally. Under the policy, we will, on an annual basis, collect information that our Chief Legal Officer, or CLO, deems reasonably necessary from each director, executive officer and (to the extent feasible) significant shareholder to enable us to identify any existing or potential related-person transactions and to effectuate the terms of the policy. In addition, under our code of conduct, our employees and directors have an affirmative responsibility to disclose any transaction or relationship that reasonably could be expected to give rise to a conflict of interest to our CLO, or, if the employee is an executive officer, to our board of directors. In considering related-person transactions, our audit committee (or other independent body of our board of directors) will take into account the relevant available facts and circumstances including, but not limited to, the risks, costs and benefits to us, the terms of the transaction, the availability of other sources for comparable services or products and, if applicable, the impact on a director's independence in the event that the related person is a director, immediate family member of a director or an entity with which a director is affiliated.

The policy requires that, in determining whether to approve, ratify or reject a related-person transaction, our audit committee (or other independent body of our board of directors) must consider, in light of known circumstances, whether the transaction is in, or is not inconsistent with, our best interests and those of our shareholders, as our audit committee (or other independent body of our board of directors) determines in the good faith exercise of its discretion.

Transactions with Related Persons; Indemnification

Transactions with Related Persons. Since January 1, 2020, we have not engaged in any transactions, nor are any such transactions currently proposed, in which we were a participant and the amount involved exceeded $120,000, and in which any related person had or will have a direct or indirect material interest.

Indemnification. We have entered into indemnification agreements with our directors, executive officers and certain other of our officers and employees. These indemnification agreements require us, under the circumstances and to the extent provided for therein, to indemnify such persons to the fullest extent permitted by applicable law against certain expenses and other amounts incurred by any such person as a result of such person being made a party to certain actions, suits, proceedings and other actions by reason of the fact that such person is or was a director, officer, employee, consultant, agent or fiduciary of our company or any of our subsidiaries or other affiliated enterprises. The rights of each person who is a party to an indemnification agreement are in addition to any other rights such person may have under our Amended and Restated Memorandum and Articles of Association, the Irish Companies Act 2014, any other agreement, a vote of the shareholders of our company, a resolution of directors of our company or otherwise. We believe that these agreements are necessary to attract and retain qualified persons as our officers and directors. We also maintain directors' and officers' liability insurance.

PROPOSAL 1
ELECTION OF DIRECTORS

Our board of directors is divided into three classes, designated Class I, Class II and Class III. The term of the Class I directors will expire on the date of this annual meeting of shareholders; the term of the Class II directors will expire on the date of the 2022 annual meeting of shareholders; and the term of the Class III directors will expire on the date of the 2023 annual meeting of shareholders. At each annual meeting of shareholders, successors to the directors whose term expires at that annual meeting are put forward for election for a three-year term.

The board of directors currently has 14 members and there are no vacancies. There are currently five directors in Class I, the class whose term of office expires at this annual meeting, four of whom are standing for election at the annual meeting: Peter Gray, Kenneth W. O'Keefe, Mark D. Smith, M.D. and Catherine A. Sohn, Pharm.D. The fifth Class I director, Elmar Schnee, is not standing for re-election to our board of directors and his term of office will expire at the annual meeting. All four Class I director nominees were nominated for election by the board of directors upon the recommendation of our nominating and corporate governance committee. Each of Mr. Gray, Ms. O'Keefe and Dr. Sohn were previously elected to our board of directors by our shareholders. In 2020, we underwent a board refreshment program and candidate search for new directors. As part of that search process, the nominating and corporate governance committee asked the search firm it engaged to provide, and then considered, a set of candidates that included both underrepresented people of color and different genders. Dr. Smith, who was identified by that search firm, joined the board of directors in December 2020 after being considered and recommended by the nominating and corporate governance committee. In addition, Paul L. Berns, currently a Class II director, notified our board of directors of his intention to resign as a director, and his resignation will be effective as of or prior to the annual meeting. Accordingly, following the annual meeting, there will be 12 directors in office.

In order to be elected as a director at the annual meeting to hold office until the 2024 annual meeting of shareholders, each nominee must be appointed by an ordinary resolution, meaning each must individually receive the affirmative vote of a majority of the votes cast by the holders of ordinary shares represented in person or by proxy at the annual meeting (including any adjournment thereof). Under our articles, if, at any annual meeting of shareholders, the number of directors is reduced below the minimum prescribed by the board of directors pursuant to our articles due to the failure of any director nominee to receive the affirmative vote of a majority of the votes cast, then in those circumstances, the nominee or nominees who receive the highest number of votes in favor of election will be elected in order to maintain such prescribed minimum number of directors. Each such director would remain a director (subject to the provisions of the 2014 Act and our articles) only until the conclusion of the next annual meeting of shareholders unless he or she is re-elected at such time.

If any nominee becomes unavailable for election as a result of an unexpected occurrence, the proxy holders will vote your proxy for the election of any substitute nominee as may be proposed by the nominating and corporate governance committee. Each nominee has consented to being named as a nominee in this proxy statement and has agreed to serve if elected, and we have no reason to believe that any nominee will be unable to serve. If elected at the annual meeting by the affirmative vote of a majority of the votes cast on his election, each nominee would serve as a director until the 2024 annual meeting of shareholders and until his successor has been elected and qualified, or, if sooner, until his death, resignation, retirement, disqualification or removal. It is our policy to invite directors and nominees for director to attend annual meetings of shareholders. Due to the COVID-19 pandemic, including related travel restrictions, none of our directors attended our 2020 annual meeting of shareholders; however, all of the directors then in office participated in the meeting by video conference.

Vacancies on the board of directors, including a vacancy that results from an increase in the authorized number of directors, may be filled only by the affirmative vote of a majority of the directors then in office, provided that a quorum is present at the relevant board meeting. A director elected by the board of directors to fill a vacancy in a class will serve for the remainder of the full term of that class and until the director's successor is elected and qualified, or, if sooner, until his or her death, resignation, retirement, disqualification or removal. Under our articles, if the number of directors is increased, directors are apportioned among the classes to maintain the number of directors in each class as nearly equal as possible, or as the Chairman of our board may otherwise direct.

The following includes a brief biography of each nominee for director and each of our other directors whose terms of office will continue following the annual meeting, including their respective ages, as of June 1, 2021. Each biography includes information regarding the specific experience, qualifications, attributes or skills that led the nominating and corporate governance committee and the board of directors to determine that the applicable nominee or other current director should serve as a member of the board of directors. We evaluate diversity considerations as well as the experience and expertise of our board as a whole to ensure alignment between the abilities and contributions of our board and our strategic priorities and long-range plan, emphasizing, among other things, expertise in global and U.S. sales and marketing, in product development, in financial management and in corporate development transactions.

Class I Director Nominees for Election for a Three-Year Term Expiring at the 2024 Annual Meeting

Peter Gray

Chairman, Teckro, Inc. and Director, Abzena

Peter Gray has served as a member of our board of directors since May 2013 and was appointed as chairperson of our audit committee in April 2014. He is Chairman of two privately-held companies providing outsourced services to the biopharma industry, Chairman of a privately-held large molecule development company, and chairs a non-profit educational establishment. He served as Chairman of the board of directors of UDG Healthcare plc, an international provider of healthcare services, from February 2012 to September 2020. In September 2011, Mr. Gray retired from his position as Chief Executive Officer of ICON plc, a global provider of outsourced development services to the pharmaceutical, biotechnology and medical device industries, which he held since November 2002. At ICON plc, Mr. Gray previously served as Group Chief Operating Officer from June 2001 to November 2002 and Chief Financial Officer from June 1997 to June 2001. From November 1983 to November 1989, Mr. Gray served as senior financial officer at Elan Corporation plc, a pharmaceutical company. Mr. Gray holds a degree in law from Trinity College Dublin and qualified as a chartered accountant in 1981.

Director since 2013

Age 66

Key Qualifications and Expertise:
Given his experience as Chief Executive Officer and Chief Financial Officer of ICON plc, Mr. Gray brings to our board of directors and audit committee over 30 years of experience in financial and operational management within the pharmaceutical industry.

Committee Assignments:
- Audit Committee (Chair)

Other Current Public Boards:
- None

Kenneth W. O'Keefe

Managing Director of Beecken Petty O'Keefe & Company

Kenneth W. O'Keefe has served as a member of our board of directors since the closing of the Azur Merger in January 2012 and was a director of Jazz Pharmaceuticals, Inc. from 2004 until the closing of the Azur Merger. Since January 2018, he has been Managing Director of Beecken Petty O'Keefe & Company, a private equity firm, which he co-founded. From November 2015 to January 2018, he was Chief Executive Officer, from January 2011 to November 2015, he was Managing Partner, and from 1997 to January 2011, he was Managing Director, of Beecken Petty O'Keefe & Company. He serves on the boards of several privately-held healthcare companies. He received a B.A. from Northwestern University and an M.B.A. from the University of Chicago.

Director since 2004*

Age 54

Key Qualifications and Expertise:
As a member of Beecken Petty O'Keefe & Company, Mr. O'Keefe brings to our board of directors significant expertise in accounting and financial matters and in analyzing and evaluating financial statements, as well as substantial experience managing private equity investments. He serves or has served on the audit committee of several companies in the healthcare industry. As the former chairperson and current member of our audit committee, Mr. O'Keefe brings to our board of directors detailed knowledge of our financial position and financial statements.

Committee Assignments:
- Audit Committee

Other Current Public Boards:
- None

*Includes service on the board of directors of Jazz Pharmaceuticals, Inc., our predecessor.

Mark D. Smith, M.D.

Professor, University of California, San Francisco and Director, Teladoc Health, Inc. and Phreesia, Inc.

Mark D. Smith, M.D. has served as a member of our board of directors since December 2020. Dr. Smith is a practicing physician and professor of clinical medicine at the University of California at San Francisco, where he has served since 1994. He also serves as a non-executive director on the boards of directors of two other publicly-held companies, Teladoc Health, Inc., a telemedicine and virtual healthcare company, and Phreesia, Inc., a healthcare software company. Dr. Smith also serves on the boards of directors of the Commonwealth Fund, a private health policy foundation, and the Institute for Health Care Improvement, an independent nonprofit organization. From 1996 to 2013, Dr. Smith was the founding President and Chief Executive Officer of the California HealthCare Foundation, an independent nonprofit philanthropy organization. From 1991 to 1996, he served as Executive Vice President at the Henry J. Kaiser Family Foundation. Dr. Smith received a B.A. from Harvard College, an M.D. from the University of North Carolina at Chapel Hill and an M.B.A. from The Wharton School at the University of Pennsylvania.

Director since 2020

Age 69

Key Qualifications and Expertise:
Dr. Smith brings to our board of directors an impressive background that marries the worlds of active medical practice and business development. A practicing physician and professor, Dr. Smith also has experience working for a variety of health focused companies both public and private. Additionally, Dr. Smith allocates part of his time for nonprofit organizations and a health policy foundation.

Committee Assignments:
- Nominating & Corporate Governance Committee since April 2021

Other Current Public Company Boards:
- Teladoc Health, Inc.
- Phreesia, Inc.

Catherine A. Sohn, Pharm.D.

Chairperson, BioEclipse Therapeutics Inc., and Director, Axcella Health Inc., Landec Corporation and Rubius Therapeutics

Catherine A. Sohn, Pharm.D. has served as a member of our board of directors since July 2012. Dr. Sohn is an independent director on the boards of directors of three other public companies: Axcella Health Inc., a biotechnology company, Landec Corporation, a life sciences company, and Rubius Therapeutics, a biotechnology company. She also serves as Chairperson of the board of BioEclipse Therapeutics, Inc., a privately-held clinical-stage biopharmaceutical company. From January 2014 to May 2017, Dr. Sohn served as an independent director on the board of directors of Neuralstem, Inc., a publicly-traded life sciences company. From 1998 to 2010, she was Senior Vice President, Worldwide Business Development and Strategic Alliances at GlaxoSmithKline Consumer Healthcare responsible for leading numerous US, regional and global partnering deals, and acquisitions. From 1994 to 1998, she was Vice President, Worldwide Strategic Product Development at SmithKline Beecham Pharmaceuticals plc in the pharmaceutical division. From 1982 to 1994, she held a series of positions in Medical Affairs, Pharmaceutical Business Development and U.S. Product Marketing at SmithKline Beecham Pharmaceuticals plc and its predecessor, Smith, Kline & French. Dr. Sohn holds the position of Adjunct Professor at the University of California, San Francisco. She received a Doctor of Pharmacy from the University of California, San Francisco, School of Pharmacy and a Certificate of Professional Development from the Wharton School at the University of Pennsylvania. Dr. Sohn was named Woman of the Year by the Healthcare Businesswomen's Association (2003), Distinguished Alumnus of the Year by the University of California, San Francisco (2000), the Frank Barnes Mentoring Award from the Licensing Executive Society, and is a National Association of Corporate Directors Board Leadership Fellow.

Director since 2012

Age 68

Key Qualifications and Expertise:
Dr. Sohn brings to our board of directors three decades of product development, strategy, commercial launch and business development transaction experience in the pharmaceutical industry and a global perspective that is directly relevant to our company.

Committee Assignments:
- Compensation Committee
- Nominating & Corporate Governance Committee

Other Current Public Company Boards:
- Axcella Health Inc.
- Landec Corporation
- Rubius Therapeutics

The board of directors recommends a vote "FOR" each nominee named above.

Class II Directors Continuing in Office Until the 2022 Annual General Meeting

Jennifer E. Cook

Director, BridgeBio Pharma, Inc. and Denali Therapeutics, Inc.

Jennifer E. Cook has served as a member of our board of directors since December 2020. Ms. Cook serves as a non-executive director on the boards of directors of two other publicly-held biotechnology companies, Denali Therapeutics Inc. and BridgeBio Pharma, Inc. She also serves on the board of directors of two privately-held biotechnology companies, Ambys Medicines, Inc. and Gyroscope Therapeutics Limited. From January 2018 to June 2019, Ms. Cook was the Chief Executive Officer at GRAIL, Inc., a privately-held early cancer detection diagnostic company. Prior to that, Ms. Cook worked at Roche Pharmaceuticals/ Genentech for 25 years, where she held a number of senior management positions covering the full lifecycle of product development and commercialization. From 2010 to 2013, she oversaw Genentech's U.S. Immunology and Ophthalmology Business Unit, and from 2013 to 2016, she led Roche's European commercial business. She also served as Roche's Global Head of Clinical Operations throughout 2017. In 2016, Ms. Cook was recognized as Woman of the Year by the Healthcare Businesswoman's Association. Ms. Cook received a B.A. in Human Biology and a M.S. in Biology from Stanford University and an M.B.A. from the Haas School of Business at University of California, Berkeley.

Director since 2020

Age 55

Key Qualifications and Expertise:
Ms. Cook brings to our board over 30 years of biopharmaceutical experience with significant C-suite, global product development and commercialization expertise, with a focus on transformative growth.

Committee Assignments:
- Compensation Committee since April 2021

Other Current Public Company Boards:
- BridgeBio Pharma, Inc.
- Denali Therapeutics Inc.

Patrick G. Enright

Managing Director, Longitude Capital

Patrick G. Enright has served as a member of our board of directors since the closing of the Azur Merger in January 2012 and was a director of Jazz Pharmaceuticals, Inc. from 2009 until the closing of the Azur Merger. Since 2006, Mr. Enright has served as Managing Director of Longitude Capital, a venture capital firm, of which he is a founder. Prior to Longitude Capital, Mr. Enright was a Managing Director of Pequot Ventures where he co-led the life sciences investment practice. Prior to Pequot, he was a Managing Member of the Delta Opportunity Fund at Diaz & Altschul Capital Management. Mr. Enright began his investment career at PaineWebber Development Corporation. Mr. Enright also has significant life sciences operations experience including senior executive positions at Valentis, Boehringer Mannheim (acquired by Roche) and Sandoz (now known as Novartis). Mr. Enright currently serves as the Chairman of the board of Aptinyx Inc., a clinical-stage biopharmaceutical company, as well as a board member of several private company boards. Selected prior public company board memberships include Aimmune Therapeutics, Inc (acquired by Nestlé Health Science in October 2020), Codexis, Inc., Corcept Therapeutics, Inc., Esperion Therapeutics, Inc., Horizon Pharma plc (currently Horizon Therapeutics plc) and Threshold Pharmaceuticals, Inc. Mr. Enright received a B.S. in Biological Sciences from Stanford University and an M.B.A. from the Wharton School of the University of Pennsylvania.

Director since 2009*

Age 59

Key Qualifications and Expertise:
Based on his experience as a venture capital investor focused on life sciences companies and his past work in the pharmaceutical industry, Mr. Enright brings to our board of directors over 30 years of operating experience and financial expertise in the life sciences industry.

Committee Assignments:
- Audit Committee
- Compensation Committee

Other Current Public Company Boards:
- Aptinyx Inc.

*Includes service on the board of directors of Jazz Pharmaceuticals, Inc., our predecessor.

Seamus Mulligan

Director, Jazz Pharmaceuticals plc

Seamus Mulligan has served as a member of our board of directors since the closing of the Azur Merger in January 2012. Mr. Mulligan was a founder and principal investor of Azur Pharma and was Azur Pharma's Chairman and Chief Executive Officer as well as being a member of its board of directors from 2005 until January 2012. Mr. Mulligan also served as our Chief Business Officer, International Business Development from January 2012 until February 2013. Between 2014 and 2018, Mr. Mulligan served as Chairman and Chief Executive Officer of Adapt Pharma Limited, a specialty pharmaceutical company, which was acquired in October 2018 by Emergent BioSolutions Inc., a multinational specialty biopharmaceutical company. Mr. Mulligan acted as a Consultant to Emergent BioSolutions Inc. from October 2018 to March 2019, when he was appointed to the Board. He resigned from the board in May 2020. From 2006 to April 2017, Mr. Mulligan served as Executive Chairman of Circ Pharma Limited and its subsidiaries, a pharmaceutical development stage group. From 1984 until 2004, Mr. Mulligan held various positions with Elan Corporation, plc, a pharmaceutical company, most recently as Executive Vice President, Business and Corporate Development, and prior to that position, held the roles of President of Elan Pharmaceutical Technologies, the drug delivery division of Elan Corporation, plc, Executive Vice President, Pharmaceutical Operations, Vice President, U.S. Operations and Vice President, Product Development. Mr. Mulligan served as a member of the board of directors of the U.S. National Pharmaceutical Council until 2004. Mr. Mulligan holds a B.Sc. (Pharm) and M.Sc. from Trinity College Dublin.

Director since 2012

Age 60

Key Qualifications and Expertise:
As a founder of Azur Pharma and a pharmaceutical industry executive, Mr. Mulligan brings to our board of directors an expertise in business development and over 35 years of experience in the pharmaceutical industry.

Committee Assignments:
- None*

Other Current Public Company Boards:
- None

* While Mr. Mulligan is not a member of any of our three standing committees of the board, he serves as Chair of our Transaction Committee.

Norbert G. Riedel, Ph.D.

Chief Executive Officer, Aptinyx, Inc.

Norbert G. Riedel, Ph.D. has served as a member of our board of directors since May 2013 and was appointed chairperson of our compensation committee in August 2013. Dr. Riedel has served as Chief Executive Officer of Aptinyx, Inc. since September 2015 and served as President from September 2015 to December 2020. Aptinyx, Inc. is a biopharmaceutical company spun out of its predecessor company, Naurex, Inc., where Dr. Riedel served as Chief Executive Officer and President from January 2014 to September 2015. From 2001 to 2013, he served as Corporate Vice President and Chief Scientific Officer of Baxter International Inc., a diversified healthcare company, where from 1998 to 2001, he also served as President and General Manager of the recombinant therapeutic proteins business unit and Vice President of Research and Development of the bioscience business unit. From 1996 to 1998, Dr. Riedel served as head of worldwide biotechnology and worldwide core research functions at Hoechst-Marion Roussel, now Sanofi, a global pharmaceutical company. Dr. Riedel served on the board of directors of Ariad Pharmaceuticals, Inc., an oncology company, from May 2011 until the company was acquired in February 2017. Dr. Riedel currently serves on the boards of directors of three other publicly-held companies, Aptinyx, Inc., Cerevel Therapeutics Holdings, Inc., a biopharmaceutical company, and Eton Pharmaceuticals, Inc., a development stage pharmaceutical company where he also serves as Chairman of the board, as well as on the board of directors of a non-profit organization, the Illinois Biotechnology Industry Organization. Dr. Riedel is also a member of the Austrian Academy of Sciences. Dr. Riedel is an Adjunct Professor at Boston University School of Medicine and an Adjunct Professor of Medicine at Northwestern University's Feinberg School of Medicine. Dr. Riedel holds a Diploma in biochemistry and a Ph.D. in biochemistry from the University of Frankfurt.

Director since 2013

Age 63

Key Qualifications and Expertise:
Dr. Riedel brings significant scientific, drug discovery and development, and commercial expertise to our board of directors with over 20 years of experience in the biotechnology and pharmaceutical industries.

Committee Assignments:
- Compensation Committee (Chair)

Other Current Public Company Boards:
- Aptinyx, Inc. (CEO)
- Cerevel Therapeutics Holdings, Inc.
- Eton Pharmaceuticals, Inc.

Class III Directors Continuing Until the 2023 Annual Meeting

Bruce C. Cozadd

Chairman and Chief Executive Officer of Jazz Pharmaceuticals plc

Bruce C. Cozadd has served as our Chairman and Chief Executive Officer since the closing of the Azur Merger in January 2012, and from October 2019 through March 2020, he served as our interim principal financial officer. Mr. Cozadd co-founded Jazz Pharmaceuticals, Inc. and has served as Chairman and Chief Executive Officer of Jazz Pharmaceuticals, Inc. since April 2009. From 2003 until 2009, he served as Jazz Pharmaceuticals, Inc.'s Executive Chairman and as a member of its board of directors. From 1991 until 2001, he held various positions with ALZA Corporation, a pharmaceutical company acquired by Johnson & Johnson, most recently as Executive Vice President and Chief Operating Officer, with responsibility for research and development, manufacturing and sales and marketing. Previously at ALZA Corporation, he held the roles of Chief Financial Officer and Vice President, Corporate Planning and Analysis. Mr. Cozadd serves on the board of Biotechnology Innovation Organization, a biotechnology trade association, where he serves on its Health Section Governing Board. He also serves on the boards of two non-profit organizations, The Nueva School and SFJAZZ. Mr. Cozadd previously served on the boards of directors of Cerus Corporation from 2001 to January 2018 and Threshold Pharmaceuticals, Inc. from 2005 to August 2017. He received a B.S. from Yale University and an M.B.A. from the Stanford Graduate School of Business.

Director since 2003*

Age 57

Key Qualifications and Expertise:
As a co-founder and our Chief Executive Officer of over 10 years, he brings to our board a deep and comprehensive knowledge of our business, as well as shareholder-focused insight into effectively executing the company's strategy and business plans to maximize shareholder value.

Committee Assignments:
- None

Other Current Public Boards:
- None

* Includes service on the board of directors of Jazz Pharmaceuticals, Inc., our predecessor.

Heather Ann McSharry

Director International Airlines Group, S.A.

Heather Ann McSharry has served as a member of our board of directors since May 2013 and was appointed as chairperson of our nominating and corporate governance committee in August 2017. Ms. McSharry currently serves as a non-executive director of International Airlines Group, S.A. From 2006 to 2009, Ms. McSharry was Managing Director Ireland of Reckitt Benckiser, a multinational health, home and hygiene consumer products company. From 1989 to 2006, she held various positions at Boots Healthcare, a leading global consumer healthcare company, most recently as Managing Director of Boots Healthcare Ireland Limited. Ms. McSharry served on the boards of directors of the Bank of Ireland from 2007 to 2011, the Industrial Development Agency in Ireland from 2010 to 2014, Uniphar plc from 2019 to 2020, Greencore Group plc from 2013 to 2021 and CRH plc from 2012 to 2021. Ms. McSharry holds a Bachelor of Commerce and a Master of Business Studies degree from University College Dublin.

Director since 2013

Age 59

Key Qualifications and Expertise:
Ms. McSharry brings to our board of directors over 30 years of experience in multiple international industries, including healthcare, consumer goods and financial services, as well as expertise in crisis management, cybersecurity and privacy issues relevant to our business.

Committee Assignments:
- Audit Committee
- Nominating & Corporate Governance Committee (Chair)

Other Current Public Boards:
- International Airlines Group, S.A.

Anne O'Riordan

Group Director of Digital, Jardine Matheson Limited

Anne O'Riordan has served as a member of our board of directors since February 2019. Since June 2019, Ms. O'Riordan has served as Group Director of Digital of Jardine Matheson Limited, an Asian conglomerate headquartered in Hong Kong, where she also serves on the board of directors. From 1990 to March 2019, Ms. O'Riordan held various leadership positions in the life sciences industry group in each of the operating units of Accenture (formerly Andersen Consulting) in North America, Europe and Asia Pacific. She most recently served as Global Industry Senior Managing Director of Accenture's Life Sciences Business from 2012 to 2019. Between 2008 and 2012, Ms. O'Riordan led Accenture's life sciences practice in Asia Pacific, focusing on strategic client development, market entry and business transformation. Prior to that, she led Accenture's European health and life sciences business, working with clients across Europe on significant regional transformation initiatives. She also spent nine years in North America working with pharmaceutical and medical products clients. She currently serves on the board of governors of the American Chamber of Commerce in Hong Kong, or AmCham Hong Kong, where she serves as the Treasurer and the board liaison for the Healthcare Committee. She is also a long-standing member of the Women of Influence Committee of AmCham Hong Kong as well as a member of The Women's Foundation and the 30% Club. Ms. O'Riordan received a B.Sc in Biotechnology from Dublin City University as well as a postgraduate diploma in Financial Accounting and MIS from the National University of Ireland, Galway.

Director since 2019

Age 53

Key Qualifications and Expertise:
Ms. O'Riordan brings to our board of directors nearly 30 years of knowledge and leadership experience advising life sciences and healthcare companies across the globe, with a uniquely diverse perspective attributable to her geographic residency in Asia. Ms. O'Riordan's background in advising life sciences companies with respect to significant global markets provides an important contribution to our board of director's mix of backgrounds, experiences and skills.

Committee Assignments:
- Audit Committee

Other Current Public Boards:
- None

Rick E Winningham

Chairman and Chief Executive Officer, Theravance Biopharma, Inc.

Rick E Winningham has served as a member of our board of directors since the closing of the Azur Merger in January 2012 and was a director of Jazz Pharmaceuticals, Inc. from 2010 until the closing of the Azur Merger. In May 2014, Mr. Winningham was appointed as Lead Independent Director of our board of directors. Mr. Winningham has served as Chairman of the board of directors of Theravance Biopharma, Inc., a biopharmaceutical company, since July 2013. He has served as Chief Executive Officer of Theravance Biopharma, Inc. since its spin-off from Innoviva, Inc. in June 2014. Since February 2021, Mr. Winningham has also served as Chairman of Retrotope, Inc., a private biotechnology company focused on cell degeneration. From October 2001 to August 2014, Mr. Winningham served as Chief Executive Officer of Innoviva, Inc., where he also served as Chairman of the Board of Directors from April 2010 to October 2014. From 1997 to 2001, he served as President of Bristol-Myers Squibb Oncology/Immunology/Oncology Therapeutics Network and, from 2000 to 2001, as President of Global Marketing. Mr. Winningham is a member of Biotechnology Industry Organization's board of directors and serves on the Health Section Governing Board Standing Committee on Reimbursement. He previously served as a member of the board of directors of OncoMed Pharmaceuticals, Inc. from June 2015 until the company's merger with Mereo BioPharma Group plc in April 2019. He also served as a member of the board of directors of the California Healthcare Institute, or CHI, from November 2011 to March 2015 and served as its Chairman from January 2014 until CHI merged with Bay Area Bioscience Association to become the California Life Sciences Association, or CLSA, in March 2015. Mr. Winningham is on the board of directors of CLSA, and served as its Chairman from March 2015 until November 2015. Mr. Winningham holds an M.B.A. from Texas Christian University and a B.S. from Southern Illinois University.

Director since 2010*

Age 61

Key Qualifications and Expertise:
Mr. Winningham's experience in senior management positions in the pharmaceutical industry provides significant industry knowledge and operational and management expertise to our board of directors.

Committee Assignments:
- Nominating & Corporate Governance Committee

Other Current Public Boards:
- Theravance Biopharma, Inc.

* Includes service on the board of directors of Jazz Pharmaceuticals, Inc., our predecessor.

There are no family relationships among any of our executive officers and directors.

PROPOSAL 2
RATIFY, ON A NON-BINDING ADVISORY BASIS, THE APPOINTMENT OF INDEPENDENT AUDITORS AND AUTHORIZE, IN A BINDING VOTE, THE BOARD OF DIRECTORS, ACTING THROUGH THE AUDIT COMMITTEE, TO DETERMINE THE INDEPENDENT AUDITORS' REMUNERATION

Pursuant to authority delegated by the board of directors, the audit committee of the board of directors is responsible for the appointment, remuneration and retention of our independent auditors. The audit committee has selected and appointed KPMG, Dublin, a registered public accounting firm, or KPMG, as our independent auditors to audit our consolidated financial statements for the year ending December 31, 2021. Under Irish law, KPMG will be deemed to be reappointed as our independent auditors at the annual meeting without the necessity of a shareholder vote. However, our shareholders are being asked in this proposal to ratify such appointment on a non-binding advisory basis because we value our shareholders' views on the company's independent auditors. The board of directors and the audit committee intend to consider the results of this vote in making determinations in the future regarding the appointment of the company's independent auditors. In addition, our shareholders are being asked to authorize the board of directors, acting through the audit committee, to determine KPMG's remuneration. This authorization is required by Irish law.

KPMG has been engaged to audit our financial statements, beginning with our consolidated financial statements for the fiscal year ended December 31, 2012, since the consummation of the Azur Merger. Representatives of KPMG are expected to attend the annual meeting, will have an opportunity to make a statement if they so desire, and will be available to respond to appropriate questions.

Proposal 2 is an ordinary resolution and must receive the affirmative vote of a majority of the votes cast in person or by proxy at the annual meeting (including any adjournment thereof) in order to be approved.

Independent Registered Public Accounting Firm Fees and Services

In connection with the audit of our 2020 financial statements, we entered into an engagement agreement with KPMG which sets forth the terms under which KPMG performed audit and tax services for the company.

The following table represents aggregate fees billed to us for the years ended December 31, 2020 and 2019 by KPMG, our independent registered public accounting firm (in thousands):

	Year Ended December 31,	
	2020	2019
Audit Fees	$2,075	$2,483
Audit-Related Fees	115	92
Tax Fees	1,137	1,169
Tax compliance services	*916*	*1,098*
Tax advisory services	*221*	*71*
All Other Fees	3	3
Total Fees	$3,330	$3,746

Audit Fees: Consists of fees and expenses for professional services in respect of the audit of the company's consolidated financial statements and of our internal control over financial reporting, the review of quarterly consolidated financial statements and statutory audits.

Audit-Related Fees: Consists of fees for assurance and services related to audit and other attestation services performed by KPMG as required by statute, regulation or contract and which are not reported under "Audit Fees."

Tax Fees: Consists of fees and expenses for professional services for tax compliance, tax advice and tax planning. Tax compliance services consist of professional services related to domestic and international tax compliance, and assistance with domestic and international tax return preparation. Tax advisory service fees relate to tax advice and planning services provided to us in connection with certain transactions undertaken by the company in 2020 and 2019. During the year ended December 31, 2020, fees and expenses of approximately $916,000 were billed in connection with tax compliance services, and fees and expenses of approximately $221,000 were billed in connection with tax advice and planning services. During the year ended December 31, 2019, fees and expenses of approximately $1,098,000 were billed in connection with tax compliance services, and fees and expenses of approximately $71,000 were billed in connection with tax advice and planning services.

All Other Fees: Consists of fees for products and services other than the services described above. For the years ended December 31, 2020 and December 31, 2019, these fees were paid in connection with access to the online accounting and tax research tool of KPMG.

All of the services and fees described above were approved by our audit committee.

As shown in the table above, less than 7% of the total fees that KPMG billed us for in 2020 were for services other than audit, audit-related and tax compliance services.

Pre-Approval Policies and Procedures

Our audit committee has a policy and procedures for the pre-approval of audit and non-audit services rendered by our independent registered public accounting firm. Our policy generally requires the pre-approval of specified services in the defined categories of audit services, audit-related services, and tax services up to specified amounts. Pre-approval may also be given as part of the audit committee's approval of the scope of the engagement of the independent auditor or on an individual explicit case-by-case basis before the independent auditor is engaged to provide each service. The pre-approval of services may be delegated to one or more of the audit committee's members, but the decision must be reported to the full audit committee at its next scheduled meeting.

Independence

Our audit committee determined that the rendering of the services other than audit services by our independent registered public accounting firm is compatible with maintaining the principal accountant's independence.

The board of directors recommends a vote "FOR" Proposal 2.

PROPOSAL 3
NON-BINDING ADVISORY VOTE ON EXECUTIVE COMPENSATION

Overview

Under the Dodd-Frank Act and Section 14A of the Exchange Act, our shareholders are entitled to vote to approve, on a non-binding advisory basis, the compensation of our named executive officers, or NEOs, as disclosed in this proxy statement in accordance with the compensation disclosure rules of the SEC. This non-binding advisory vote is commonly referred to as a "say-on-pay" vote.

At our 2020 annual meeting of shareholders, our shareholders indicated their preference that we hold a non-binding say-on-pay vote every year and our board of directors has adopted a policy that is consistent with that preference. At our 2020 annual meeting of shareholders, the shareholders also overwhelmingly approved our say-on-pay proposal, with approximately 88% of the total votes cast voting in favor of the proposal.

This year, we are again asking our shareholders to vote "FOR" the advisory approval of the compensation of our NEOs as disclosed in the "*Compensation Discussion and Analysis*," the compensation tables and the related narrative disclosure contained in this proxy statement beginning on page 36. As discussed in those disclosures, our compensation committee designs our executive compensation program with the following objectives and philosophy:

- **Attract, incentivize, reward and retain diverse, talented individuals with relevant experience in the life sciences industry through a competitive pay structure.** We reward individuals fairly over time and seek to retain those individuals who continue to meet our high expectations.
- **Deliver balanced total compensation packages to accomplish our business objectives and mission.** Our executive compensation program focuses on *target total direct compensation*, combining short-term and long-term components, cash and equity, and fixed and variable payments, in the proportions that we believe are the most appropriate to incentivize and reward our executive officers for achieving our corporate goals while minimizing incentives for excessive risk-taking or unethical conduct.
- **Align pay with our performance.** Our annual performance bonus awards are not earned unless pre-determined levels of performance are achieved against annual corporate objectives approved by our board of directors at the beginning of the year. Likewise, our stock option awards will not provide realizable value and our restricted stock unit awards will not provide increased value unless there is an increase in the value of our shares, which benefits all shareholders. We also have executive share ownership guidelines to further support our ownership culture and align the interests of executive officers and shareholders. Further, starting in 2021, approximately 50% of each NEO's target equity compensation will be in the form of performance-based equity awards.

The compensation committee will continue to monitor the impact of COVID-19 on the global economy, our business and the design of our executive compensation program.

Say-on-Pay Vote

This vote is not intended to address any specific item of compensation, but rather the overall compensation of our NEOs and the philosophy, policies and practices described in this proxy statement. The board of directors is asking our shareholders to indicate their support for the compensation of our NEOs as described in this proxy statement by casting a non-binding advisory vote "FOR" the following resolution:

"**RESOLVED**, that the compensation paid to Jazz Pharmaceuticals' NEOs, as disclosed pursuant to Item 402 of Regulation S-K of the Exchange Act, including the Compensation Discussion and Analysis, compensation tables and narrative discussion, is hereby APPROVED."

Proposal 3 (continued)

Because the vote is advisory, it is not binding on the board of directors or the company. Nevertheless, the views expressed by our shareholders, whether through this vote or otherwise, are important to management and the board of directors and, accordingly, the board of directors and the compensation committee intend to consider the results of this vote in making determinations in the future regarding executive compensation arrangements.

Proposal 3 is an ordinary resolution and must receive the affirmative vote of a majority of the votes cast in person or by proxy at the annual meeting (including any adjournment thereof) in order to be approved.

Unless our board of directors changes the frequency of future advisory votes on the compensation of our NEOs, the next advisory vote on the compensation of our NEOs will be held at the 2022 annual meeting of shareholders.

The board of directors recommends a vote "FOR" Proposal 3.

BACKGROUND TO PROPOSALS 4 AND 5

Introduction

Proposals 4 and 5, which we refer to as our Share Issuance Proposals, ask our shareholders to approve the renewal, for a new five-year term, of our board of directors' authority to allot and issue ordinary shares up to a maximum of our currently-authorized but unissued share capital, which we call the share allotment and issuance authority, and to allot and issue those shares for cash without first being required to offer such shares to all of our shareholders on a pro-rata basis, which we call the pre-emption opt-out authority. In this proxy statement, we refer to the share allotment and issuance authority and the pre-emption opt-out authority collectively as the share issuance authorities. Our board of directors unanimously recommends voting for the Share Issuance Proposals for many reasons, including the following, which are discussed in greater detail below:

- Our current share issuance authorities will expire on August 4, 2021 unless renewed by our shareholders, and the renewal of our share issuance authorities is fundamental to the way we intend to advance our business, grow and diversify our revenues, and increase shareholder value. Our growth strategy depends in part on our ability to identify, acquire, in-license and/or develop additional products or product candidates with the goal of growing and diversifying our revenues. Our management and board of directors rely on having the flexibility that the renewal of our share issuance authorities would provide to quickly take advantage of strategic opportunities, including potential acquisitions and other capital-intensive transactions that we believe would increase shareholder value.
- Our current share issuance authorities have, since the Azur Merger in 2012, kept us on an equal footing with our peer companies that are incorporated and listed in the U.S. with respect to our ability to use our equity in furtherance of our growth strategy. Approval of the Share Issuance Proposals will continue to keep us on an equal footing with our U.S.-based peer companies in deploying capital and competing for, and completing, acquisitions and similar strategic transactions designed to advance our business and increase shareholder value. We are asking you to approve our Share Issuance Proposals to allow us to continue to execute on our business and growth strategy in a timely and competitive manner.
- Approval of the Share Issuance Proposals extends — but does not in any way expand — the current share issuance authorities that were most recently approved by our public shareholders in 2016 with over 80% support. Our actions during that time demonstrate our deliberately disciplined use of equity in furtherance of our growth strategy. We believe that we have been successful in executing on our long-term business plan and growth strategy, while also creating value for our shareholders. We have been engaged in targeted corporate development, applying a disciplined approach to allocating our resources between investments in our current commercial and development portfolio and the acquisition or in-licensing of new assets. While we have been deliberately disciplined in our use of equity in our completed transactions, if our Share Issuance Proposals are not approved, we would potentially lose the flexibility to quickly take advantage of corporate development or other strategic opportunities that would require the issuance of equity or equity-linked securities. We believe that the loss of that flexibility would negatively impact our ability to execute on our business and growth strategy without competitive disadvantage.
- Share issuance limitations derived from Irish market practice for companies listed on the primary stock exchange in Ireland, Euronext Dublin, are not required or mandated by Irish or U.S. laws or regulations, and we do not believe that limitations derived from such Irish market practice should apply to us as a company *listed exclusively* on Nasdaq.
- The governance and share issuance requirements and restrictions to which U.S.-incorporated, Nasdaq-listed companies are subject will continue to apply to us in all respects.

Why We are Submitting the Share Issuance Proposals for Shareholder Approval

We are listed in the U.S. and incorporated in Ireland.

As a result of the Azur Merger, we re-domiciled in Ireland. As a public limited company incorporated in Ireland, we follow the corporate legal requirements of Ireland. Our board of directors is subject to, and has and will continue to exercise its authority in compliance with, its fiduciary duties to the company and our shareholders under Irish law. Our ordinary shares are listed exclusively on the Nasdaq Global Select Market. Because our ordinary shares are listed exclusively in the U.S. and the U.S. capital markets are the sole capital markets for our ordinary shares, we follow the rules and regulations of the SEC and the Nasdaq rules and listing standards. We are and will continue to be subject to the same governance and share issuance requirements and restrictions as all U.S.-incorporated companies listed on Nasdaq.

Irish law requires us to obtain shareholder approval of share issuance authorities.

As a matter of Irish law, directors of an Irish public limited company must have specific authority from shareholders to allot and issue any of the company's ordinary shares (other than pursuant to employee equity plans). In addition, when the directors of an Irish public limited company determine that it is in the best interests of the company to issue shares for cash, the company must first offer those shares on the same or more favorable terms to existing shareholders of the company on a pro-rata basis (commonly referred to as the statutory pre-emption right) unless this statutory pre-emption right is dis-applied, or opted-out of, by approval of the shareholders. *As a matter of Irish law, these approvals are required only once every five years and there is no limit under Irish law on the amount of shares that these approvals may cover (apart from the Irish-incorporated company's then-authorized but unissued share capital).* Companies incorporated in the U.S. are not subject to similar share issuance restrictions.

The current share issuance authorities, the renewal of which was most recently approved by our public shareholders in 2016 with over 80% support, are due to expire in August 2021.

At our 2016 annual meeting, with our original share issuance authorities due to expire on January 17, 2017, our shareholders approved to extend (not expand) the original share issuance authorities for a five-year period from the date of the 2016 annual meeting. Accordingly, the current share issuance authorities will expire on August 4, 2021 unless again renewed by our shareholders at this annual meeting.

Why Our Shareholders Should Support Our Share Issuance Proposals

The renewal of our share issuance authorities is fundamental to the way we intend to advance our business, grow and diversify our revenues, and increase shareholder value. The renewal of our share issuance authorities would also continue to maintain our equal footing with our U.S.-based peer companies, thereby enabling us to execute on our business and growth strategy without competitive disadvantage.

Our growth strategy depends in part on our ability to identify, acquire, in-license, and/or develop additional products or product candidates with the goal of growing and diversifying our revenues. Our management and board of directors rely on having the flexibility that the renewal of our share issuance authorities would provide to quickly take advantage of strategic opportunities, including potential acquisitions and other capital-intensive transactions that we believe would increase shareholder value. Many of these opportunities are highly competitive, with multiple parties often offering comparable or even the same economics. If our Share Issuance Proposals are not approved, we would be required to obtain shareholder approval prior to issuing any shares in connection with new strategic opportunities after August 4, 2021, even if we would not otherwise be required to obtain shareholder approval under Nasdaq rules. Similarly, even if Proposal 4 is approved, if Proposal 5 is not also approved, in each case where we propose to issue shares for cash consideration after August 4, 2021, we would first have to offer those shares on the same or more favorable terms to our existing shareholders pro-rata to their existing shareholdings. This could put us at a distinct disadvantage vis-à-vis many of our peers in competing for acquisitions and similar transactions (particularly since many of the companies with which we compete strategically are listed and incorporated in the U.S. and are not subject to similar share issuance restrictions), and might make it difficult for us to complete such transactions, thus potentially limiting our ability to further our growth strategy by deploying capital to meet strategic goals that are in the best interests of our shareholders.

Should our shareholders not approve the Share Issuance Proposals and as a result, our current share issuance authorities expire, we will generally not be able to allot and issue any shares, including shares for cash, (other than to employees pursuant to our employee equity plans or pursuant to pre-existing contractual obligations) without first seeking and obtaining shareholder approval for each such issuance. In either case, we would still have the ability to seek shareholder approval in connection with a specific issuance of shares; however, we do not believe that our ability to convene an extraordinary general meeting of shareholders to approve each specific share issuance that we would seek to undertake in furtherance of future strategic transactions is a workable alternative to obtaining approval of Proposals 4 and 5. The uncertainty of whether we could obtain shareholder approval for a specific issuance in the context of any transaction, as well as the delays we would experience in seeking and obtaining such approval, could make any transaction bid that we submit less attractive, even if our bid was on economically better terms than competitive bids submitted by U.S.-listed companies not subject to similar share issuance restrictions. In addition, the case-by-case approval approach ignores market window and other deal timing, confidentiality and competitive realities. *Likewise, the requirement to first offer shares that we propose to issue for cash to all of our existing shareholders in time-consuming pro-rata rights offerings would considerably reduce the speed at which we could complete capital-raising activities undertaken in furtherance of our growth strategy, would increase our costs and otherwise might make it difficult for us to complete such transactions, and could put us at a distinct disadvantage vis-à-vis many of our peers in competing for acquisitions and similar transactions*.

In addition, we believe that renewing our share issuance authorities for a five-year period instead of seeking general re-approval of our share issuance authorities on a more frequent basis is in the best interests of the company and our shareholders because seeking general re-approval of our share issuance authorities on a more frequent basis would still subject us to the competitive disadvantage risk, particularly given the 75% vote threshold required to approve the pre-emption opt-out authority. Our concern in this regard is the possibility that a single shareholder or small number of shareholders, including those with a short-term focus, could defeat a proposal to approve the pre-emption opt-out authority given the high vote threshold to approve that dis-application, even if a substantial majority of our shareholders who are supportive of our business and strategy vote to approve the pre-emption opt-out authority.

During our nearly ten years as an Irish-incorporated company, our shareholders have entrusted us to be disciplined stewards of our current share issuance authorities. In turn, our actions during that time demonstrate our deliberately disciplined use of equity in furtherance of our growth strategy.

We believe that we have been successful in executing on our long-term business plan and growth strategy, while also creating value for our shareholders. We have been engaged in targeted corporate development, applying a disciplined approach to allocating our resources between investments in our current commercial and development portfolio and acquisitions or in-licensing of new assets. Since the Azur Merger, we have completed company and asset acquisitions or in-licensing transactions valued at over $12 billion in the aggregate. Since that time, these corporate development transactions have ultimately resulted in the additions of neuroscience therapies Epidiolex and Sunosi, and oncology therapies Zepzelca, Vyxeos, Defitelio and Erwinaze to our commercial portfolio. Since 2015, we have executed on a total of nine product approvals and commercial launches, including three product launches in 2020 alone. In addition, in May 2021, we completed the GW Acquisition for approximately $7.2 billion, further diversifying our commercial portfolio and innovative pipeline with therapies that are complementary to our existing business, including by adding Epidiolex which exceeded $500 million in annual net sales in 2020.

Notably, each of these corporate development transactions, other than the GW Acquisition, were funded with cash on hand and/or through debt financings, and we have otherwise been disciplined in our use of equity to provide funding for, or to complete, acquisitions or in-licensing of new assets. In this regard, the GW Acquisition was funded with $6.6 billion in cash ($5.4 billion of which was financed with debt) and only approximately $0.6 billion of the acquisition deliverable were discharged with our ordinary shares. Furthermore, following the Azur Merger we have only issued equity or equity-linked securities for capital raising purposes in our three offerings of exchangeable senior notes that provided us with unsecured debt of approximately $2 billion with an interest rate range of 1.50% to 2.00%, and our current share issuance authorities were key to enabling us to timely and efficiently execute on these exchangeable senior note offerings. In any event, these transactions speak

to both the vibrancy of our targeted corporate development efforts and our disciplined use of equity, as well as our commitment to deploy capital wisely to meet strategic goals that are in the best interests of our shareholders. While we have been deliberately disciplined in our use of equity in our completed transactions, if Proposals 4 and 5 are not approved, we would potentially lose the flexibility to quickly take advantage of corporate development opportunities that would require the delivery of equity or equity-linked securities.

We also believe that we have appropriately balanced investment in our growth with managing dilution through our share repurchase programs, under which we have repurchased approximately 12.5 million of our ordinary shares from 2013 through March 31, 2021.

Share issuance limitations derived from Irish market practice are not required or mandated by Irish or U.S. laws or regulations and we do not believe that limitations derived from Irish market practice should apply to us as a company listed exclusively on Nasdaq.

We do not believe that limitations derived from Irish market practice should apply to us. While not required by Irish law, we believe it has become market practice for companies whose share capital is listed on Euronext Dublin to generally limit the share allotment and issuance authority to an amount equal to 33% of their issued share capital for a period of 12 to 18 months and to generally limit the dis-application of statutory pre-emption rights to only 5% of the issued share capital. While these limitations in size and duration on the share issuance authorities are part of the corporate governance framework applicable to companies whose share capital is listed on Euronext Dublin (regardless of whether such companies are incorporated in Ireland or elsewhere), our ordinary shares are not, and never have been, listed on Euronext Dublin, and we are not subject to Euronext Dublin share listing rules or governed by the corporate governance standards applicable to companies whose share capital is listed on Euronext Dublin.

As an Irish company, we are committed to complying with Irish law. We are legally required to seek shareholder approval to renew our share issuance authorities because we are incorporated in Ireland. However, the U.S. capital markets are the sole capital markets for our ordinary shares and our ordinary shares are listed solely on the Nasdaq Global Select Market. As such, we believe that our shareholders expect us to, and we are committed to, follow customary U.S. capital markets practices, U.S. corporate governance standards, the rules and regulations of the SEC and the Nasdaq rules and listing standards. We also believe that applying the standards and market practices of a market where our ordinary shares are not listed, and where the institutional shareholder guidance creating such market practice never intended for it to be applied to companies whose listing is in the U.S., is inappropriate and is simply not in the best interests of our company or our shareholders, especially in circumstances where we are committed to complying with the governance rules and practices of the actual capital market for our ordinary shares—the Nasdaq Global Select Market—which provides its own separate restrictions on share issuances for the protection of shareholders.

Further, we believe that these Irish market limitations would leave us disadvantaged as compared with our U.S. incorporated and exchange-listed peers. Companies that are incorporated and listed in the U.S. are not generally required to—and do not—seek shareholder approval to renew their authority to allot and issue shares, and the dis-application of the statutory pre-emption right is not otherwise required for many companies with which we compete. In this regard, companies who are incorporated and publicly-traded in the U.S. generally do not grant all existing shareholders pre-emptive rights on new issuances of shares.

We understand that certain proxy advisory firms have in recent proxy seasons applied their United Kingdom, or U.K., and Ireland voting guidelines, which derive from institutional shareholder guidance created solely for companies with an Irish or U.K. stock exchange listing, in formulating their voting recommendations on share issuance authorities proposals for U.S.-listed Irish incorporated companies, as was the case with respect to our share issuance authorities proposals at our 2016 annual meeting, meaning that they have applied or otherwise taken into account the market practice for companies whose share capital is listed on Euronext Dublin (and the equivalent UK exchange) in formulating their voting recommendations on share issuance authorities proposals for Irish incorporated companies, even if their shares are not listed on Euronext Dublin (or any U.K. exchange). For all of the reasons stated above, we respectfully disagree with this approach.

We also understand that some Irish incorporated companies that are listed solely on U.S. stock exchanges have followed the market practice for companies whose share capital is listed on Euronext Dublin with respect to their

own share issuance authorities proposals. However, those companies may have business and growth strategies that differ from ours or may have different approaches for creating shareholder value.

Risks if the Share Issuance Proposals are not approved.

For all of the reasons described above, we believe that the additional restrictions on our ability to deploy capital if our share issuance authorities are not renewed on the terms set forth in the Share Issuance Proposals would negatively impact our ability to quickly take advantage of strategic opportunities, including potentially transformative acquisitions and other capital-intensive opportunities if and when such acquisitions or opportunities arise. In addition, we operate in a highly competitive industry, and we believe that the failure to approve the share issuance authorities on the basis proposed would put us at a competitive disadvantage; conversely, we believe that the renewal of our share issuance authorities on the terms set forth in the Share Issuance Proposals would keep us on an equal footing with our peer companies who are incorporated and listed in the U.S.

We will remain subject to all Nasdaq requirements and SEC rules, and fiduciary duties under Irish law.

Shareholder approval of our Share Issuance Proposals does not impact our existing obligations under SEC rules and regulations and the Nasdaq rules and listing standards. In addition, our board of directors is subject to, and has and will continue to exercise its authority in compliance with, its fiduciary duties to the company and our shareholders under Irish law, including in respect of share issuances.

To be clear, shareholder approval of our Share Issuance Proposals would not mean that we would have no limits on future share issuances. To the contrary, we are considered to be a U.S. domestic reporting company under SEC rules and are subject to the same governance and share issuance requirements as all other U.S.-incorporated companies listed on Nasdaq. For example, Nasdaq rules generally require shareholder approval prior to our issuing shares in connection with acquisitions, other than in public offerings for cash, when the number of shares to be issued is or will be equal to or in excess of 20% of the number of our ordinary shares outstanding before the issuance. With limited exceptions, we must also seek shareholder approval of our equity compensation plans, including material revisions of such plans.

In addition, our shareholders will also continue to benefit from our directors' duties under Irish law, including their principal fiduciary duties to act in good faith and in the best interests of the company, and the protections afforded to shareholders under the Irish Takeover Rules, which are designed to ensure that, in an offer context, there is equality of information between shareholders and bidders and that shareholders' rights are protected.

In summary, because the Share Issuance Proposals are fully compliant with Irish corporate law, consistent with U.S. capital markets practice and governance standards, and, if approved, will keep us on an equal footing with our peer companies who are incorporated and listed in the U.S., we believe it is necessary to seek as broad an authority to issue new shares on a non-pre-emptive basis as is permissible under Irish law.

Shareholder Outreach

A priority for our board of directors is soliciting and listening to the views of our shareholders on a variety of topics, including our business and growth strategy, corporate governance practices, executive compensation matters, and various other ESG matters. Discussions with our shareholders have been productive and informative and have provided valuable feedback to our board of directors to help ensure that our board's decisions align with shareholder objectives. Following our 2020 annual meeting, we reached out to shareholders who collectively held approximately 47% of our then-outstanding shares to request meetings, and held meetings by phone with each shareholder who accepted our request for engagement. In discussions we have had with shareholders about the share issuance authorities that we must obtain as a matter of Irish law, shareholders have generally understood that renewing our existing share issuance authorities would allow us to continue to execute on our business and growth strategy in a timely and competitive manner.

Effect on Authorized Share Capital

Of the 300,000,000 ordinary shares we currently have authorized for issuance, as of the close of business on June 2, 2021, there were 60,975,068 ordinary shares outstanding and another 28,761,778 ordinary shares reserved for issuance under our various shareholder-approved equity plans. Renewal of the current share issuance authorities will not increase our authorized share capital or otherwise provide greater authority than that approved by shareholders with over 80% support at our 2016 annual meeting, other than to renew the term of the share issuance authorities for an additional five years. We have no immediate plans, arrangements or understandings with respect to any share issuances for which renewal of the share issuance authorities is necessary, other than issuances of shares under our shareholder-approved equity plans.

Summary

The Share Issuance Proposals, if approved, will maintain the status quo, allowing our board of directors continued flexibility to issue shares that are already within our authorized share capital, subject to the shareholder approval and other requirements of Nasdaq and the SEC. The renewal of the share issuance authorities, as proposed:

- will keep us on an equal footing with our peer companies who are incorporated and listed in the U.S., while also fully complying with Irish law;
- will not exempt us from any Nasdaq corporate governance or other requirements, including those limiting the issuance of shares;
- is fully consistent with U.S. capital markets practice and governance standards; and
- will not increase our authorized share capital.

For the above reasons, our board of directors strongly recommends that you vote “FOR” both of the Share Issuance Proposals.

PROPOSAL 4
RENEW DIRECTORS' AUTHORITY TO ISSUE SHARES

The directors of an Irish public limited company must have specific authority from shareholders to issue shares (including rights to subscribe for or otherwise acquire any shares)—even shares which are part of the company's authorized but unissued share capital. Currently, our directors are authorized to issue new ordinary shares without further shareholder approval up to a maximum of our authorized but unissued ordinary share capital. This authority has been in place since the Azur Merger in January 2012 and was renewed by our public shareholders in 2016 with over 80% support. Under Irish law, this authority can be granted for a maximum period of five years, at which point it lapses unless renewed by our shareholders. The current share allotment and issuance authority is due to expire on August 4, 2021.

We are asking for your approval to renew the directors' authority to allot and issue shares for an additional five-year period to expire on July 29, 2026. We are not asking you to approve an *increase* to our authorized share capital. Your approval of this Proposal 4 will simply provide our board of directors with continued flexibility to issue ordinary shares up to the maximum of our existing authorized but unissued ordinary share capital, subject to the shareholder approval and other requirements of Nasdaq and the SEC. The renewed share allotment and issuance authority would apply to the issuance of shares, certain equity awards and other securities convertible into or exercisable or exchangeable for our shares.

Renewal of this authority would not exempt Jazz Pharmaceuticals from applicable Nasdaq requirements to obtain shareholder approval prior to certain share issuances or to comply with applicable SEC disclosure and other regulations, and our board of directors will continue to focus on and satisfy its fiduciary duties to our shareholders with respect to share issuances.

If shareholders do not approve this Proposal 4, the existing authorization to allot and issue up to the amount of our authorized but unissued share capital will continue to apply until August 4, 2021. However, our board of directors will generally not be able to issue any shares after August 4, 2021 (other than to employees pursuant to our employee equity plans or pursuant to a pre-existing contractual obligation) without first seeking and obtaining shareholder approval for each such issuance.

Please refer to background discussion of Proposals 4 and 5 beginning on page 96 of this proxy statement for additional information regarding this proposal.

The board of directors is asking our shareholders to vote "FOR" the following ordinary resolution:

"**RESOLVED**, that the directors of Jazz Pharmaceuticals be and they are hereby generally and unconditionally authorized pursuant to section 1021(1) of the Irish Companies Act 2014 to exercise all powers of Jazz Pharmaceuticals to allot relevant securities (within the meaning of section 1021(12) of the Irish Companies Act 2014) up to the amount of Jazz Pharmaceuticals' authorized but unissued share capital as at the date of this resolution, provided that this authority shall expire five years from the date of passing of this resolution and provided that Jazz Pharmaceuticals may before such expiry make an offer or agreement which would or might require relevant securities to be allotted after such expiry and the directors may allot relevant securities in pursuance of such an offer or agreement as if the authority conferred by this resolution had not expired."

Proposal 4 is an ordinary resolution and must receive the affirmative vote of a majority of the votes cast in person or by proxy at the annual meeting (including any adjournment thereof) in order to be approved.

The board of directors recommends a vote "FOR" Proposal 4.

PROPOSAL 5
RENEW DIRECTORS' AUTHORITY TO ISSUE SHARES FOR CASH WITHOUT FIRST OFFERING SHARES TO EXISTING SHAREHOLDERS

In general, unless otherwise authorized by shareholders, before an Irish public limited company can issue shares for cash (including rights to subscribe for or otherwise acquire any shares), it must first offer the shares or rights to existing shareholders of the company pro-rata to their existing shareholdings. Currently, our directors are authorized to issue new shares for cash, up to a maximum of our authorized but unissued ordinary share capital, without first offering them to existing shareholders, thereby opting out of the statutory pre-emption rights provision. This pre-emption opt-out authority has been in place since the Azur Merger in January 2012 and was renewed by our public shareholders in 2016 with over 80% support. Under Irish law, this authority can be granted for a maximum period of five years, at which point it will lapse unless renewed by our shareholders. The current pre-emption opt-out authority is due to expire on August 4, 2021.

We are asking for your approval to renew the pre-emption opt-out authority for an additional five-year period to expire on July 29, 2026. Your approval of this Proposal 5 will simply provide our board of directors with continued flexibility to issue ordinary shares for cash on a non-pre-emptive basis up to the maximum of our existing authorized but unissued ordinary share capital. Renewal of this authority would not exempt Jazz Pharmaceuticals from applicable Nasdaq requirements to obtain shareholder approval prior to certain share issuances or to comply with applicable SEC disclosure and other regulations, and our board of directors will continue to focus on and satisfy its fiduciary duties to our shareholders with respect to share issuances.

If our shareholders do not approve this Proposal 5, the existing pre-emption opt-out authority in respect of up to the amount of our authorized but unissued share capital will continue to apply until August 4, 2021. However, ordinary shares offered and issued for cash after August 4, 2021 would have to first be offered to existing shareholders of Jazz Pharmaceuticals pro-rata to their existing shareholding before those shares could be issued to any new shareholders. ***This limitation on our ability to issue shares for cash could put us at a distinct disadvantage vis-à-vis many of our peers in competing for acquisitions and similar transactions, would considerably reduce the speed at which we could complete capital-raising activities undertaken in furtherance of our growth strategy, and would increase our costs and otherwise might make it difficult for us to complete such transactions in furtherance of our growth strategy, thus potentially limiting our ability to deploy capital to meet strategic goals that are in the best interests of our shareholders.*** Please note that the requirement to offer shares to pre-existing shareholders does not apply where such shares are issued for non-cash consideration or pursuant to employee equity plans.

Please refer to background discussion of Proposals 4 and 5 beginning on page 96 of this proxy statement for additional information regarding this proposal.

The approval of this Proposal 5 is conditional on the approval of Proposal 4 because Irish law requires that a general authority to issue shares be in place before a pre-emption opt-out authority in respect of any such issuances can be granted. Proposal 5 will therefore not be passed unless Proposal 4 is also approved.

The board of directors is asking our shareholders to vote "FOR" the following special resolution:

"**RESOLVED**, that as a special resolution, subject to and conditional upon Proposal 4 being passed, the directors of Jazz Pharmaceuticals be and are hereby empowered pursuant to section 1023(3) of the Irish Companies Act 2014 to allot equity securities within the meaning of said section 1023 for cash pursuant to the authority conferred by Proposal 4 up to an aggregate nominal amount equal to the authorized but unissued share capital of Jazz Pharmaceuticals as at the date of this resolution as if section 1022 of the Irish Companies Act 2014 did not apply to any such allotment, provided that this authority shall expire five years from the date of passing of this resolution and provided that Jazz Pharmaceuticals may before the expiry of such authority make an offer or agreement which would or might require equity securities to be allotted after such expiry and the directors of Jazz Pharmaceuticals may allot equity securities in pursuance of such an offer or agreement as if the power conferred by this resolution had not expired."

Proposal 5 (continued)

As required under Irish law, Proposal 5 is a special resolution that requires the affirmative vote of at least 75% of the votes cast in person or by proxy at the annual meeting (including any adjournment thereof) in order to be approved. In addition, Proposal 5 is subject to Proposal 4 being approved. Therefore, unless shareholders approve Proposal 4, Proposal 5 will fail and not be implemented, notwithstanding that shareholders may have approved Proposal 5.

The board of directors recommends a vote "FOR" Proposal 5.

PROPOSAL 6
ADJOURNMENT PROPOSAL

You are being asked to consider and vote upon an adjournment proposal.

This resolution proposes to approve any motion to adjourn the annual meeting, or any adjournments thereof, to another time and place to solicit additional proxies if there are insufficient votes at the time of the annual meeting to approve Proposal 5.

Proposal 5 is subject to the Irish law super majority voting regime of voting by special resolution, which requires no less than 75% of the votes of shareholders cast (in person or by proxy) at a general meeting to be voted "FOR" the proposal in order to be passed. Given the high vote threshold associated with Proposal 5, we are seeking your authority to adjourn the meeting to solicit additional proxies if there are insufficient votes at the time of the annual meeting to approve Proposal 5.

The board of directors is asking our shareholders to vote "FOR" the following ordinary resolution:

"**RESOLVED**, that any motion to adjourn the annual meeting, or any adjournments thereof, to another time and place to solicit additional proxies if there are insufficient votes at the time of the annual meeting to approve Proposal 5 set forth in this proxy statement, be approved."

Proposal 6 is an ordinary resolution and must receive the affirmative vote of a majority of the votes cast in person or by proxy at the annual meeting (including any adjournment thereof) in order to be approved.

The board of directors recommends a vote "FOR" Proposal 6.

QUESTIONS AND ANSWERS ABOUT THESE PROXY MATERIALS AND VOTING

Q: Why am I receiving these materials?

A: Our board of directors is soliciting your proxy to vote at the annual meeting, including at any adjournments or postponements of the annual meeting. This proxy statement contains important information regarding the annual meeting, the proposals on which you are being asked to vote, information you may find useful in determining how to vote and voting procedures.

Q: Why did I receive a notice in the mail regarding the internet availability of proxy materials instead of a full set of proxy materials?

A: We are pleased to take advantage of SEC rules that allow companies to furnish their proxy materials over the internet. Most of our shareholders will not receive paper copies of our proxy materials (unless requested), and will instead be sent a Notice of Internet Availability of Proxy Materials, or Notice. All shareholders receiving a Notice will have the ability to access the proxy materials on the website referred to in the Notice and to request a printed set of the proxy materials. Instructions on how to access the proxy materials via the internet or to request a printed set of the proxy materials may be found in the Notice.

Q: Why did I receive a full set of proxy materials in the mail instead of a notice regarding the internet availability of proxy materials?

A: We are providing shareholders who have previously requested a printed set of our proxy materials with paper copies of our proxy materials instead of a Notice.

Q: What is the annual report included in the proxy materials?

A: Under applicable U.S. securities laws, we are required to send an annual report to security holders along with this proxy statement. We intend to satisfy this annual report requirement by sending the 2020 Annual Report on Form 10-K together with this proxy statement.

Q: How do I attend the annual meeting?

A: The annual meeting will be held on Thursday, July 29, 2021, at 3:00 p.m. local time at our corporate headquarters located at Fifth Floor, Waterloo Exchange, Waterloo Road, Dublin 4, Ireland. For directions to attend the annual meeting in person, please contact our Investor Relations department at +353.1.634.7892 (Ireland) or +1.650.496.2800 (United States) or by email at investorinfo@jazzpharma.com. Information on how to vote in person at the annual meeting is discussed below. However, you do not need to attend the annual meeting to vote your shares and, as noted in the next question, in light of the COVID-19 pandemic, we strongly recommend that you vote your shares in advance of the meeting as instructed below.

Q: What are the potential impacts of the COVID-19 pandemic on the annual meeting?

A: In light of the ongoing COVID-19 pandemic, the company would like to emphasize that we consider the health of our shareholders, employees and other attendees a top priority. We are monitoring guidance issued by appropriate governmental health agencies, including the Irish Health Service Executive, or the HSE, the Irish government, the U.S. Center for Disease Control and Prevention and the World Health Organization, collectively, the Health Authorities, and we have implemented, and will continue to implement the measures advised by the relevant Health Authorities to minimize the spread of COVID-19. Information on such measures and on COVID-19 generally is available on the HSE's website at https://www.hse.ie/eng/services/news/newsfeatures/covid19-updates/.

The annual meeting will be held in accordance with HSE and relevant Health Authority guidance. Should we determine that alternative arrangements are necessitated due to public health recommendations regarding

containment of COVID-19, which may include a change in date or time of the meeting, a change in venue or format of the meeting we will announce our decision by press release and/or filing with the Securities Exchange Commission as additional soliciting materials and also post information on the investor relations page of the company's website found at https://investor.jazzpharma.com/news. We encourage shareholders to keep up-to-date with, and follow the guidance from the Government of Ireland and the Department of Health (of Ireland) (as appropriate), as circumstances may change at short notice. Due to this uncertainty, shareholders are strongly encouraged to vote their shares by proxy in advance at the annual meeting.

Q: Who can vote at the annual meeting?

A: Only shareholders of record at the close of business on June 2, 2021, the record date for the annual meeting, will be entitled to vote at the annual meeting.

Shareholders of Record: Shares registered in your name

If, at the close of business on June 2, 2021, your shares were registered directly in your name with our transfer agent, Computershare Trust Company, N.A., then you are a shareholder of record. As a shareholder of record, you may vote in person at the annual meeting or vote by proxy. Whether or not you plan to attend the annual meeting, we urge you to vote by proxy over the telephone or via the internet as instructed below, or, for those shareholders who receive a paper proxy card in the mail, by mailing a completed proxy card.

Beneficial Owners: Shares registered in the name of a broker, bank or other agent

If, at the close of business on June 2, 2021, your shares were held not in your name, but rather in an account at a brokerage firm, bank or other agent, then you are the beneficial owner of shares held in "street name" and a Notice is being sent to you by that broker, bank or other agent. The broker, bank or other agent holding your account is considered to be the shareholder of record for purposes of voting at the annual meeting. As a beneficial owner, you have the right to direct your broker, bank or other agent regarding how to vote the shares in your account as set forth in the voting instructions in the Notice from your broker, bank or other agent. You are also invited to attend the annual meeting. However, since you are not the shareholder of record, you may not vote your shares in person at the annual meeting unless you request and obtain a valid proxy from your broker, bank or other agent.

Q: What am I voting on?

A: There are six matters scheduled for a vote at the annual meeting:

- Election by separate resolutions of the four named nominees for director to hold office until the 2024 annual meeting of shareholders (*Proposal 1*).
- Ratification, on a non-binding advisory basis, of the appointment of KPMG as the independent auditors of the company for the fiscal year ending December 31, 2021 and the authorization, in a binding vote, of the board of directors, acting through the audit committee, to determine the independent auditors' remuneration (*Proposal 2*).
- Approval, on a non-binding advisory basis, of the compensation of our NEOs as disclosed in this proxy statement (*Proposal 3*).
- Renewal of the board of directors' existing authority under Irish law to allot and issue ordinary shares *(Proposal 4).*
- Renewal of the board of directors' existing authority under Irish law to allot and issue ordinary shares for cash without first offering those ordinary shares to existing shareholders pursuant to the statutory pre-emption right that would otherwise apply (*Proposal 5*).
- Approval of any motion to adjourn the annual meeting, or any adjournments thereof, to another time and place to solicit additional proxies if there are insufficient votes at the time of the annual meeting to approve Proposal 5 (Proposal 6).

Q: What are the board's voting recommendations?

A: The board of directors recommends that you vote your shares "FOR" each of the director nominees named in this proxy statement to hold office until the 2024 annual meeting of shareholders, and "FOR" each of the other five proposals.

Q: What if another matter is properly brought before the annual meeting?

A: The board of directors knows of no other matters that will be presented for consideration at the annual meeting. If any other matters are properly brought before the annual meeting, it is the intention of the persons named in the accompanying proxy, referred to in this proxy statement as the "proxy holders," to vote on those matters in accordance with their best judgment.

Q: How do I vote?

A: For the election of directors (*Proposal 1*), you may vote "FOR" or "AGAINST" each nominee, or you may abstain from voting for all or any of the nominees. For each of the other five proposals, you may vote "FOR" or "AGAINST" or abstain from voting.

Shareholders of Record: Shares registered in your name

If you are a shareholder of record, you may vote in person at the annual meeting, you may vote by electronic proxy over the telephone or via the internet as instructed below, or, for those shareholders who receive a paper proxy card in the mail, by mailing a completed proxy card. Whether or not you plan to attend the annual meeting, we urge you to vote by proxy to ensure your vote is counted. You may still attend the annual meeting and vote in person even if you have already voted by proxy. **However, as noted above, in light of the COVID-19 pandemic, we strongly recommend that you vote your shares by proxy in advance of the meeting**.

- To vote in person, come to the annual meeting and we will give you a ballot when you arrive. Please bring your admission ticket or proof of ownership, as further discussed under "*Do I need a ticket to attend the annual meeting?*" below.
- To vote using a proxy card, simply complete, sign and date the proxy card that was mailed to you and return it promptly in the envelope provided. Proxy cards must be received by July 28, 2021. If you return your signed proxy card before this time, we will forward it to the company's registered office electronically in accordance with Irish law and we will vote your shares as you direct.
- To vote by telephone, dial toll-free +1.800.690.6903 within the United States, U.S. territories and Canada using a touch-tone phone and follow the recorded instructions to submit an electronic proxy card. You will be asked to provide the company number and control number from the enclosed proxy card. Your vote must be received by 11:59 p.m., U.S. Eastern Time, on July 28, 2021 to be counted.
- To vote via the internet, go to www.proxyvote.com to complete an electronic proxy card. You will be asked to provide the company number and control number from the enclosed proxy card. Your vote must be received by 11:59 p.m., U.S. Eastern Time, on July 28, 2021 to be counted.

Beneficial Owners: Shares registered in the name of a broker, bank or other agent

If you are a beneficial owner of shares registered in the name of your broker, bank or other agent, you should have received a Notice or the full set of proxy materials containing voting instructions from that broker, bank or other agent rather than from us. Simply follow the voting instructions in the Notice or the full set of proxy materials to ensure that your vote is counted. Alternatively, you may vote by telephone or via the internet as instructed by your broker, bank or other agent. To vote in person at the annual meeting, you must request and obtain a valid proxy from your broker, bank, or other agent. Follow the voting instructions from your broker, bank or other agent, or contact your broker, bank or other agent to request a proxy form. However, as noted above, in light of the COVID-19 pandemic, we strongly recommend that you vote your shares by proxy in advance of the meeting.

We provide internet proxy voting to allow you to vote your shares online, with procedures designed to ensure the authenticity and correctness of your proxy vote instructions. However, please be aware that you must bear any costs associated with your internet access, such as usage charges from internet access providers and telephone companies.

Q: How many votes do I have?

A: On each matter to be voted upon, you have one vote for each ordinary share you owned as of the close of business on June 2, 2021.

Q: If I am a shareholder of record and I do not vote, or if I return a proxy card or otherwise vote without giving specific voting instructions, what happens?

A: If you are a shareholder of record and you do not vote by completing your proxy card, vote by proxy via the internet or by telephone, or vote in person at the annual meeting, your shares will not be voted.

If you are a shareholder of record and you do not specify your vote on each proposal individually when voting by proxy via the internet or by telephone, or if you sign and return a proxy card without giving specific voting instructions, then the proxy holders will vote your shares in the manner recommended by the board of directors on all matters presented in this proxy statement and as the proxy holders may determine in their discretion with respect to any other matters properly presented for a vote at the annual meeting. The voting recommendations of the board of directors are set forth under "*What are the board's voting recommendations?*" above.

Q: If I am a beneficial owner of shares held in street name and I do not provide my broker or bank with voting instructions, what happens?

A: If you are a beneficial owner of shares held in street name and you do not instruct your broker, bank or other agent how to vote your shares, your broker, bank or other agent may still be able to vote your shares in its discretion. In this regard, under the rules of the New York Stock Exchange (NYSE), brokers, banks and other securities intermediaries that are subject to NYSE rules may use their discretion to vote your "uninstructed" shares with respect to matters considered to be "routine" under NYSE rules, but not with respect to "non-routine" matters. In this regard, we have been advised by the NYSE that Proposals 1 and 3 are considered to be "non-routine" under NYSE rules meaning that your broker may not vote your shares on those proposals in the absence of your voting instructions. We have also been advised by the NYSE that Proposals 2, 4, 5 and 6 are considered to be a "routine" matter under NYSE rules meaning that if you do not return voting instructions to your broker by its deadline, your shares may be voted by your broker in its discretion on Proposals 2, 4, 5 and 6.

If you are a beneficial owner of shares held in street name, in order to ensure your shares are voted in the way you would prefer, you must provide voting instructions to your broker, bank or other agent by the deadline provided in the materials you receive from your broker, bank or other agent.

Q: What does it mean if I receive more than one set of proxy materials, more than one Notice, or a combination thereof?

A: If you receive more than one set of proxy materials, more than one Notice, or a combination thereof, your shares may be registered in more than one name or are registered in different accounts. Please follow the voting instructions on each set of proxy materials or Notices to ensure that all of your shares are voted.

Q: Can I change my vote after submitting my proxy?

A: Yes. You can revoke your proxy at any time before the commencement of the annual meeting. If you are the record holder of your shares, you may revoke your proxy in any one of the following ways:

- You may submit another properly completed proxy card with a later date.
- You may grant a subsequent proxy by telephone or via the internet.
- You may send a timely written notice that you are revoking your proxy to our Company Secretary at Fifth Floor, Waterloo Exchange, Waterloo Road, Dublin 4, Ireland.
- You may attend the annual meeting and vote in person. Simply attending the annual meeting will not, by itself, revoke your proxy.
- Your most recent proxy card or telephone or internet proxy is the one that is counted.
- If your shares are held by your broker, bank or other agent as a nominee or agent, you should follow the instructions provided by your broker, bank or other agent.

Q: Do I need a ticket to attend the annual meeting?

A: Yes, you will need an admission ticket or proof of ownership of ordinary shares to enter the annual meeting. If you are a shareholder of record and you received a full set of proxy materials in the mail, your admission ticket is attached to the proxy card sent to you. If you plan to attend the annual meeting, please so indicate when you vote and bring the ticket and valid photo identification with you to the annual meeting. If you are a shareholder of record and you received a Notice in the mail, your admission ticket is your Notice. Please bring your Notice and valid photo identification with you to the annual meeting. If your shares are held in the name of a bank, broker or other holder of record, your admission ticket is on your voting instruction form. If you do not bring your admission ticket, you will need proof of ownership to be admitted to the annual meeting. A recent brokerage statement or letter from a bank or broker is an example of proof of ownership. If you arrive at the annual meeting without an admission ticket, we will admit you only if we are able to verify that you are a shareholder of our company. For directions to attend the annual meeting in person, please contact our Investor Relations department at +353.1.634.7892 (Ireland) or +1.650.496.2800 (United States) or by email at investorinfo@jazzpharma.com.

Q: How are votes counted?

A: Votes will be counted by the inspector of elections appointed for the meeting. The inspector of elections will separately count, with respect to the proposal to elect directors (*Proposal 1*), votes "FOR," "AGAINST," abstentions and broker non-votes; and, with respect to the other proposals, votes "FOR," "AGAINST," abstentions, and, as applicable, broker non-votes.

Q: What are "broker non-votes"?

A: As discussed above, when a beneficial owner of shares held in street name does not give voting instructions to his or her broker, bank or other securities intermediary holding his or her shares as to how to vote on matters deemed to be "non-routine" under NYSE rules, the broker, bank or other such agent cannot vote the shares. These un-voted shares are counted as "broker non-votes." We have been advised by the NYSE that Proposals 1 and 3 are considered to be "non-routine" under NYSE rules and we therefore expect broker non-votes in connection with those proposals.

As a reminder, if you are a beneficial owner of shares held in street name, in order to ensure your shares are voted in the way you would prefer, you must provide voting instructions to your broker, bank or other agent by the deadline provided in the materials you receive from your broker, bank or other agent.

Q: How many votes are needed to approve each proposal?

A: Assuming that a quorum is present at the annual meeting, the following votes will be required for approval:

Proposal	Vote Required for Approval
Proposal 1	Each director nominee must receive the affirmative vote of a majority of the votes cast on his or her election to hold office until the 2024 annual meeting of shareholders.
Proposal 2	Affirmative vote of a majority of the votes cast
Proposal 3	Affirmative vote of a majority of the votes cast
Proposal 4	Affirmative vote of a majority of the votes cast
Proposal 5	Affirmative vote of 75% of the votes cast[(1)]
Proposal 6	Affirmative vote of a majority of the votes cast

(1) Proposal 5 is subject to Proposal 4 being approved. Therefore, unless shareholders approve Proposal 4, Proposal 5 will fail and not be implemented, notwithstanding that shareholders may have approved Proposal 5.

Q: What are the treatment and effect of abstentions and broker non-votes?

A: Abstentions and broker non-votes will be treated as shares present for purposes of determining the presence of a quorum for the transaction of business at the annual meeting. Abstentions and broker non-votes will not, however, be considered votes cast at the annual meeting. Because the approval of all of the proposals is based on the votes cast at the annual meeting, abstentions and, as applicable, broker non-votes will not have any effect on the outcome of voting on the proposals.

Q: What is the quorum requirement?

A: A quorum of shareholders is necessary to hold a valid meeting. A quorum will be present if shareholders holding a majority of the issued and outstanding ordinary shares entitled to vote as of the record date are present at the annual meeting or represented by proxy. On the record date, there were 60,975,068 ordinary shares outstanding and entitled to vote. Your shares will be counted towards the quorum only if you submit a valid proxy (or if one is submitted on your behalf by your broker, bank or other agent) or, provided that you are a shareholder of record, if you vote in person at the annual meeting. Abstentions and broker non-votes will be counted towards the quorum requirement. If there is no quorum within one hour of the time scheduled for the annual meeting, the annual meeting will stand adjourned to August 5, 2021 at 3:00 p.m. local time at the same location, or such other time or place as the board of directors may determine.

Q: How can I find out the results of the voting at the annual meeting?

A: Preliminary voting results will be announced at the annual meeting. In addition, final voting results will be published in a quarterly report on Form 10-Q or a current report on Form 8-K that we expect to file with the SEC within four business days after the annual meeting. If final voting results are not available to us in time to file a Form 10-Q or a Form 8-K within four business days after the annual meeting, we intend to file a Form 8-K to publish preliminary results and, within four business days after the final results are known to us, file an additional Form 8-K to publish the final results.

Q: What are the Irish statutory financial statements and where can I access them?

A: We are presenting for consideration our Irish statutory financial statements, and the respective reports of the directors and the auditors thereon, at the annual meeting. Since we are an Irish company, we are required to prepare Irish statutory financial statements under applicable Irish company law and to deliver those financial statements together with the respective reports of the directors and the auditors thereon to shareholders of record in connection with our annual meetings of shareholders. The Irish statutory financial statements cover the results of operations and financial position of Jazz Pharmaceuticals plc for the year ended December 31, 2020. The Irish statutory financial statements were prepared in accordance with the International Financial Reporting Standards as adopted by the European Union and as applied in accordance with the 2014 Act. There is no requirement under Irish law that the Irish statutory financial statements be approved by the shareholders, and no such approval will be sought at the annual meeting.

Our Irish statutory financial statements, and the respective reports of the directors and the auditors thereon, will be delivered to shareholders of record in accordance with our obligations under Irish law. We will mail without charge, upon written request, a copy of the Irish statutory financial statements, together with the respective reports of the directors and the auditors thereon, to beneficial "street name" owners of our shares. Requests should be sent to: Jazz Pharmaceuticals plc, Attention: Company Secretary, Fifth Floor, Waterloo Exchange, Waterloo Road, Dublin 4, Ireland.

Q: What proxy materials are available on the internet?

A: This proxy statement, our letter to shareholders and the 2020 Annual Report on Form 10-K are available at https://materials.proxyvote.com/G50871.

Q: Who should I call if I have any questions?

A: If you require any assistance in voting your shares or have any other questions, please contact Alliance Advisors, our proxy solicitor, at +1.855.600.8108.

OTHER MATTERS

Presentation of Irish Statutory Financial Statements

Our Irish statutory financial statements for the fiscal year ended December 31, 2020, together with the reports of the directors and auditors thereon, will be presented and considered at the annual meeting in accordance with the requirements of the 2014 Act. Our Irish statutory financial statements have been approved by the board of directors. There is no requirement under Irish law that such statements be approved by shareholders, and no such approval will be sought at the annual meeting.

Registered and Principal Executive Offices

The registered and principal executive offices of Jazz Pharmaceuticals plc are located at Fifth Floor, Waterloo Exchange, Waterloo Road, Dublin 4, Ireland. Our telephone number there is +353.1.634.7800.

Shareholder Proposals and Director Nominations for the 2022 Annual Meeting

Our shareholders may submit proposals on matters appropriate for shareholder action at shareholder meetings in accordance with Rule 14a-8 promulgated under the Exchange Act. For such proposals to be included in our proxy materials relating to our 2022 annual meeting of shareholders, all applicable requirements of Rule 14a-8 must be satisfied and, pursuant to Rule 14a-8, such proposals must be received by us no later than February 15, 2022. However, if our 2022 annual meeting of shareholders is not held between June 29, 2022 and August 28, 2022, then the deadline will be a reasonable time prior to the time that we begin to print and mail our proxy materials. Such proposals should be delivered to Jazz Pharmaceuticals plc, Attention: Company Secretary, Fifth Floor, Waterloo Exchange, Waterloo Road, Dublin 4, Ireland.

Our articles provide that shareholder nominations of persons to be elected to the board of directors at an annual meeting must be made following written notice to our Company Secretary which is executed by a shareholder and accompanied by certain background and other information specified in our articles. Such written notice and information must be received by our Company Secretary not later than the close of business on March 17, 2022 nor earlier than January 16, 2022; provided, however, that in the event our 2022 annual meeting of shareholders is not held between June 29, 2022 and August 28, 2022, notice must be delivered no earlier than 150 days prior to nor later than the later of 90 days prior to the date of the 2022 annual meeting or the 10th day following the day on which public announcement of the date of such meeting is first made. Our articles provide that other proposals may only be proposed at an annual meeting if either (i) it is proposed by or at the direction of our board of directors; (ii) it is proposed at the direction of the Irish High Court; or (iii) the chairman of the meeting decides, in his or her absolute discretion, that the proposal may properly be regarded as within the scope of the relevant meeting. In addition, the proxy solicited by our board of directors for the 2022 annual meeting of shareholders will confer discretionary voting authority with respect to (i) any proposal presented by a shareholder at that meeting for which we have not been provided with notice by April 29, 2022 and (ii), if we have received notice of such proposal by April 29, 2022, any matter, provided that (i) the 2022 proxy statement briefly describes such matter and how management's proxy holders intend to vote on it and (ii) the shareholder does not comply with the requirements of Rule 14a-4(c)(2) promulgated under the Exchange Act. On any other business which may properly come before the 2022 annual meeting of shareholders, or any adjournment thereof, and whether procedural or substantive in nature (including without limitation any motion to amend a resolution or adjourn the meeting) not specified in this proxy statement, the proxy holder will act at his or her discretion.

Householding of Proxy Materials

The SEC has adopted rules that permit companies and intermediaries (such as brokers) to satisfy the delivery requirements for Notices and proxy materials with respect to two or more shareholders sharing the same address by delivering a single Notice or a single set of proxy materials, as applicable, addressed to those shareholders. This process, which is commonly referred to as "householding" potentially means extra convenience for shareholders and cost savings for companies.

Other Matters (continued)

A number of brokers with account holders who are Jazz Pharmaceuticals shareholders will be "householding" Notices and our proxy materials. A single Notice or a single set of proxy materials, as applicable, may be delivered to multiple shareholders sharing an address unless contrary instructions have been received from the affected shareholders. Once you have received notice from your broker that it will be "householding" communications to your address, "householding" will continue until you are notified otherwise or until you revoke your consent. If, at any time, you no longer wish to participate in "householding" and would prefer to receive a separate Notice or set of proxy materials, as applicable, in the future you may: (1) notify your broker, (2) direct your written request to Jazz Pharmaceuticals plc, Attention: Investor Relations, Fifth Floor, Waterloo Exchange, Waterloo Road, Dublin 4, Ireland or (3) contact our Investor Relations department at +353.1.634.7892 (Ireland) or +1.650.496.2800 (United States) or by email at investorinfo@jazzpharma.com. Shareholders who currently receive multiple copies of Notices or proxy materials at their address and would like to request "householding" of their communications should contact their broker. In addition, we will promptly deliver, upon written or oral request to the address or telephone number above, a separate copy of a Notice or set of proxy materials to a shareholder at a shared address to which a single Notice or set of proxy materials, as applicable, was delivered.

Annual Report on Form 10-K

We will mail without charge, upon written request, a copy of our 2020 Annual Report on Form 10-K, including the consolidated financial statements, schedules and list of exhibits, and any particular exhibit specifically requested. Requests should be sent to: Jazz Pharmaceuticals plc, Attention: Aislinn Doody, Company Secretary, Fifth Floor, Waterloo Exchange, Waterloo Road, Dublin 4, Ireland.

Special Note Regarding Forward-Looking Statements

This proxy statement contains forward-looking statements, including, but not limited to, statements related to our strategy to create sustainable shareholder value, including statements related to the way we intend to advance our business, grow and diversify our revenues, and increase shareholder value; our goal to significantly grow and diversify 2022 revenues from products launched since 2019; the anticipated benefits to us of the GW Acquisition; the goals of our ESG strategies, efforts and initiatives, including with respect to human capital management, our efforts to operate our manufacturing facilities in an environmentally responsible way and the goals of our internal environmental policies and management systems; the intended effects of and goals related to our COVID-19 response, including with respect to our business continuity plans and support of COVID-19 relief efforts; the anticipated launches of JZP-258 (Xywav) in IH and JZP-458 and the anticipated timing thereof; the anticipated benefits to us of our corporate development transactions and research and development efforts; anticipated clinical development timelines and initiatives; the goals of our executive compensation programs; and other statements that are not historical facts. These forward-looking statements are based on our current plans, objectives, estimates, expectations and intentions and inherently involve significant risks and uncertainties. Actual results and the timing of events could differ materially from those anticipated in such forward-looking statements as a result of these risks and uncertainties, which include, without limitation, risks and uncertainties associated with: maintaining or increasing sales of and revenue from our key marketed products, including Epidiolex and our oxybate products; effectively launching and commercializing our other products and product candidates; our ability to realize the expected benefits of the GW Acquisition, including the risks that the acquired GW business will not be integrated successfully or that such integration may be more difficult, time-consuming or costly than expected; future opportunities and plans for the combined company following the GW Acquisition, including the uncertainty of expected future regulatory filings, product launches, financial performance and results of the combined company; the dependence of the historical GW business on the successful commercialization of Epidiolex/Epidyolex and the uncertain market potential of Epidiolex; the time-consuming and uncertain regulatory approval process, including the risks that we may be unable to submit anticipated regulatory filings on the timeframe anticipated, or at all, or that we may be unable to obtain regulatory approvals of any of our product candidates, including JZP458, Xywav in IH, nabiximols and Epidiolex for additional indications, in a timely manner or at all; the costly and time-consuming pharmaceutical product development process and the uncertainty of clinical success, including risks related to failure or delays in successfully initiating or completing clinical trials and assessing patients such as those being experienced, and expected to continue to be experienced, by us as a result of the effects of the COVID-19 pandemic; regulatory initiatives and changes in tax laws; market volatility; the ultimate duration and severity of the COVID-19 pandemic and resulting global economic, financial, and healthcare system disruptions and the current and potential future negative impacts to our business operations and financial results, including the risk that our business continuity plans and other COVID-19 responses may be ineffective in mitigating the negative impacts associated with the evolving effects of the COVID-19 pandemic; protecting and enhancing our intellectual property rights; delays or problems in the supply or manufacture of our products and product candidates; complying with applicable U.S. and non-U.S. regulatory requirements; complying with complex and increasingly stringent environmental, health and safety laws and regulations in the countries where we operate; government investigations, legal proceedings and other actions; obtaining and maintaining adequate coverage and reimbursement for our products; identifying and acquiring, in-licensing or developing additional products or product candidates, financing these transactions and successfully integrating acquired product candidates, products and businesses; our ability to realize the anticipated benefits of our collaborations and license agreements with third parties; challenges inherent in efficiently managing employees in diverse geographies and creating a positive workplace culture; the aspirational nature of our ESG strategies, efforts and initiatives, which are not guarantees or promises that such goals, initiatives and objectives will be met; our ability to achieve expected future financial performance and results and the uncertainty of future tax, accounting and other provisions and estimates, including the uncertainty of our estimates of acquisition accounting adjustments related to the GW Acquisition; and other risks and uncertainties affecting us and the historical GW business, including those described from time to time under the caption “Risk Factors” and elsewhere in Jazz Pharmaceuticals’ and GW Pharmaceuticals’ Securities and Exchange Commission filings and reports, including Jazz Pharmaceuticals Annual Report on Form 10-K for the year ended December 31, 2020, GW’s Annual Report on Form 10-K for the year ended December 31, 2020 and future filings and reports by Jazz Pharmaceuticals. In addition, while we expect the COVID-19 pandemic to continue to adversely affect our business operations and financial results, the extent of the impact on our ability to generate sales of and revenues from our approved products, execute on new product launches, our clinical development and regulatory efforts, our corporate development objectives and the value of and market for our ordinary shares, will depend on future developments

that are highly uncertain and cannot be predicted with confidence at this time, such as the ultimate duration and severity of the pandemic, governmental "stay-at-home" orders and travel restrictions, quarantines, social distancing and business closure requirements in the U.S., Ireland and other countries, and the effectiveness of actions taken globally to contain and treat the disease. Moreover, other risks and uncertainties of which we are not currently aware may also affect our forward-looking statements and may cause actual results and timing of events to differ materially from those anticipated. The forward-looking statements herein are made only as of the date of this proxy statement or as of the dates indicated in the forward-looking statements, even if they are subsequently made available by us on our website or otherwise. We undertake no obligation to update or supplement any forward-looking statements to reflect actual results, new information, future events, changes in our expectations or other circumstances that exist after the date as of which the forward-looking statements were made.

General

Your proxy is solicited on behalf of our board of directors. Unless otherwise directed, at the annual meeting (or any adjournment thereof), proxies will be voted "FOR" all of the nominees listed in Proposal 1 and "FOR" Proposals 2 through 6. If any matter other than those described in this proxy statement properly comes before the annual meeting (or any adjournment thereof), it is the intention of the persons named in the accompanying proxy to vote on such matters in accordance with their best judgment.

By order of the board of directors,

/s/ Aislinn Doody
Aislinn Doody, Company Secretary
Dublin, Ireland

June 11, 2021

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2020

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission File Number: 001-33500

JAZZ PHARMACEUTICALS PUBLIC LIMITED COMPANY

(Exact name of registrant as specified in its charter)

Ireland	**98-1032470**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

Fifth Floor, Waterloo Exchange
Waterloo Road, Dublin 4, Ireland D04 E5W7
011-353-1-634-7800
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Ordinary shares, nominal value $0.0001 per share	**JAZZ**	**The Nasdaq Stock Market LLC**

Securities registered pursuant to Section 12(g) of the Act:

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐ Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant, as of June 30, 2020, the last business day of the registrant's most recently completed second fiscal quarter, was approximately $5,958,338,704 based upon the last sale price reported for the registrant's ordinary shares on such date on The Nasdaq Global Select Market. The calculation of the aggregate market value of voting and non-voting common equity excludes 1,454,458 ordinary shares of the registrant held by executive officers, directors and shareholders that the registrant concluded were affiliates of the registrant on that date. Exclusion of such shares should not be construed to indicate that any such person possesses the power, direct or indirect, to direct or cause the direction of the management or policies of the registrant or that such person is controlled by or under common control with the registrant.

As of February 16, 2021, a total of 56,325,436 ordinary shares, nominal value $0.0001 per share, of the registrant were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Certain information required by Part III, Items 10-14 of this Form 10-K is incorporated by reference to the registrant's definitive Proxy Statement for the 2021 Annual General Meeting of Shareholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A. If such Proxy Statement is not filed within 120 days after the end of the fiscal year covered by this Form 10-K, such information will be included in an amendment to this Form 10-K to be filed within such 120-day period.

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JAZZ PHARMACEUTICALS PLC
2020 ANNUAL REPORT ON FORM 10-K

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We own or have rights to various copyrights, trademarks, and trade names used in our business in the U.S. and/or other countries, including the following: Jazz Pharmaceuticals®, Xyrem® (sodium oxybate) oral solution, Sunosi® (solriamfetol), Defitelio® (defibrotide sodium), Defitelio® (defibrotide), Erwinaze® (asparaginase *Erwinia chrysanthemi*), Erwinase®, CombiPlex®, Vyxeos® (daunorubicin and cytarabine) liposome for injection, Vyxeos® liposomal 44 mg/100 mg powder for concentrate for solution for infusion, Zepzelca™ (lurbinectedin), and Xywav™ (calcium, magnesium, potassium, and sodium oxybates) oral solution. This report also includes trademarks, service marks and trade names of other companies. Trademarks, service marks and trade names appearing in this Annual Report on Form 10-K are the property of their respective owners.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, which are subject to the "safe harbor" created by those sections. Forward-looking statements are based on our management's beliefs and assumptions and on information currently available to our management. In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "could," "would," "expect," "plan," "anticipate," "believe," "estimate," "project," "predict," "propose," "intend," "continue," "potential," "possible," "strive," "seek," "designed," "goal", "foreseeable," "likely," "unforeseen" and similar expressions intended to identify forward-looking statements. These statements involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance, time frames or achievements to be materially different from any future results, performance, time frames or achievements expressed or implied by the forward-looking statements. We discuss many of these risks, uncertainties and other factors in this Annual Report on Form 10-K in greater detail under the heading "Risk Factors." Given these risks, uncertainties and other factors, you should not place undue reliance on these forward-looking statements. In addition, our goals and objectives are aspirational and are not guarantees or promises that such goals and objectives will be met. Also, these forward-looking statements represent our estimates and assumptions only as of the date of this filing. You should read this Annual Report on Form 10-K completely and with the understanding that our actual future results may be materially different from what we expect. We hereby qualify our forward-looking statements by our cautionary statements. Except as required by law, we assume no obligation to update our forward-looking statements publicly, or to update the reasons that actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future.

SUMMARY RISK FACTORS

Below is a summary of material factors that make an investment in our ordinary shares speculative or risky. Importantly, this summary does not address all of the risks and uncertainties that we face. Additional discussion of the risks and uncertainties summarized in this risk factor summary, as well as other risks and uncertainties that we face, can be found under "Risk Factors" in Part I, Item 1A of this Annual Report on Form 10-K. The below summary is qualified in its entirety by that more complete discussion of such risks and uncertainties. You should consider carefully the risks and uncertainties described under "Risk Factors" in Part I, Item 1A of this Annual Report on Form 10-K as part of your evaluation of an investment in our ordinary shares.

- We may not realize the anticipated benefits and synergies from our proposed acquisition of GW Pharmaceuticals.
- The pending acquisition of GW Pharmaceuticals may not be completed on the currently contemplated timeline or terms, or at all; and regulatory bodies could impose certain requirements upon the combined company as a condition to approval that could reduce the anticipated benefits of the transaction.
- Failure to complete the acquisition of GW Pharmaceuticals could have a material and adverse effect on us.
- The indebtedness of the combined company following the consummation of the acquisition will be substantially greater than our indebtedness on a standalone basis and greater than the combined indebtedness of Jazz Pharmaceuticals and GW Pharmaceuticals prior to the announcement of the acquisition. This increased level of indebtedness could adversely affect the combined company's business flexibility and increase its borrowing costs.
- Our inability to maintain or increase sales from our neuroscience therapeutic area would have a material adverse effect on our business, financial condition, results of operations and growth prospects.
- The introduction of new products in the U.S. market that compete with, or otherwise disrupt the market for, our oxybate products and product candidates would adversely affect sales of our oxybate products and product candidates.
- The distribution and sale of our oxybate products are subject to significant regulatory restrictions, including the requirements of a risk evaluation and mitigation strategy, or REMS, and these regulatory requirements subject us to risks and uncertainties, any of which could negatively impact sales of Xyrem and Xywav.
- While we expect our oxybate products, Xyrem and our newly approved Xywav, to remain the largest part of our business, our success also depends on our ability to effectively commercialize products in our oncology therapeutic area.
- We face substantial competition from other companies, including companies with larger sales organizations and more experience working with large and diverse product portfolios.
- Adequate coverage and reimbursement from third party payors may not be available for our products and we may be unable to successfully contract for coverage from pharmacy benefit managers and group purchasing organizations, which could diminish our sales or affect our ability to sell our products profitably; conversely, to secure coverage from these organizations, we may be required to pay rebates or other discounts or other restrictions to reimbursement that could diminish our sales.

- The pricing of pharmaceutical products has come under increasing scrutiny as part of a global trend toward healthcare cost containment and resulting changes in healthcare law and policy may impact our business in ways that we cannot currently predict, which could have a material adverse effect on our business and financial condition.
- In addition to access, coverage and reimbursement, the commercial success of our products depends upon their market acceptance by physicians, patients, third party payors and the medical community.
- Delays or problems in the supply of our products for sale or for use in clinical trials, loss of our single source suppliers or failure to comply with manufacturing regulations could materially and adversely affect our business, financial condition, results of operations and growth prospects.
- Our future success depends on our ability to successfully develop and obtain and maintain regulatory approvals for our late-stage product candidates and, if approved, to successfully launch and commercialize those product candidates.
- We may not be able to successfully identify and acquire or in-license additional products or product candidates to grow our business, and, even if we are able to do so, we may otherwise fail to realize the anticipated benefits of these transactions.
- Conducting clinical trials is costly and time-consuming, and the outcomes are uncertain. A failure to prove that our product candidates are safe and effective in clinical trials, or to generate data in clinical trials to support expansion of the therapeutic uses for our existing products, could materially and adversely affect our business, financial condition, results of operations and growth prospects.
- We have incurred and may in the future incur substantial costs as a result of litigation or other proceedings relating to patents, other intellectual property rights and related matters, and we may be unable to protect our rights to, or commercialize, our products.
- Changes in the market for directors and officers liability insurance could make it more difficult and more expensive for us to obtain directors and officers liability insurance, and such insurance coverage may have reduced policy limits and coverage, may not be sufficient to cover our potential liabilities and may make it more difficult for us to attract and retain directors and officers.
- Our business is currently adversely affected and could be materially and adversely affected in the future by the evolving effects of the COVID-19 pandemic and related global economic slowdown as a result of the current and potential future impacts on our commercialization efforts, clinical trial activity, research and development activities, supply chain and corporate development activities and other business operations, in addition to the impact of a global economic slowdown.
- Significant disruptions of information technology systems or data security breaches could adversely affect our business.
- We are subject to significant ongoing regulatory obligations and oversight, which may result in significant additional expense and limit our ability to commercialize our products.
- If we fail to comply with our reporting and payment obligations under the Medicaid Drug Rebate program or other governmental pricing programs, we could be subject to additional reimbursement requirements, penalties, sanctions and fines, which could have a material adverse effect on our business, financial condition, results of operations and growth prospects.
- We have incurred substantial debt, which could impair our flexibility and access to capital and adversely affect our financial position, and our business would be adversely affected if we are unable to service our debt obligations.
- To continue to grow our business, we will need to commit substantial resources, which could result in future losses or otherwise limit our opportunities or affect our ability to operate and grow our business.
- The market price of our ordinary shares has been volatile and is likely to continue to be volatile in the future, and the value of your investment could decline significantly.

NOTE REGARDING COMPANY REFERENCE

In this report, unless otherwise indicated or the context otherwise requires, all references to "Jazz Pharmaceuticals," "Jazz,""the registrant," "we," "us," and "our" refer to Jazz Pharmaceuticals plc and its consolidated subsidiaries.

PART I

Item 1. Business

Overview

Jazz Pharmaceuticals plc is an innovative global biopharmaceutical company dedicated to developing and commercializing life-changing medicines that transform the lives of patients with serious diseases – often with limited or no options. We have a diverse portfolio of marketed medicines and novel product candidates, in early- to late-stage development, across key therapeutic areas. Our focus is in neuroscience, including sleep and movement disorders, and in oncology, including hematologic malignancies and solid tumors. We actively explore new options for patients including novel compounds, small molecule advancements, biologics and innovative delivery technologies.

Our lead marketed products are:

- **Xyrem® (sodium oxybate) oral solution**, a product approved by the U.S. Food and Drug Administration, or FDA, and marketed in the U.S. for the treatment of both cataplexy and excessive daytime sleepiness, or EDS, in narcolepsy patients seven years of age and older;
- **Xywav™ (calcium, magnesium, potassium, and sodium oxybates) oral solution**, a product that contains 92% less sodium than Xyrem, approved by FDA and launched in the U.S. in November 2020 for the treatment of cataplexy or EDS in narcolepsy patients seven years of age and older;
- **Sunosi® (solriamfetol)**, a product approved by FDA and the European Commission, or the EC, and marketed in the U.S. and in Europe to improve wakefulness in adult patients with EDS associated with narcolepsy or obstructive sleep apnea, or OSA;
- **Defitelio® (defibrotide sodium)**, a product approved in the U.S. for the treatment of adult and pediatric patients with hepatic veno-occlusive disease, or VOD, also known as sinusoidal obstruction syndrome, or SOS, with renal or pulmonary dysfunction following hematopoietic stem cell transplantation, or HSCT, and in Europe (where it is marketed as Defitelio® (defibrotide)) for the treatment of severe VOD in adults and children undergoing HSCT therapy;
- **Erwinaze® (asparaginase *Erwinia chrysanthemi*)**, a product approved in the U.S. and in certain markets in Europe (where it is marketed as Erwinase®) for patients with acute lymphoblastic leukemia, or ALL, who have developed hypersensitivity to *E. coli*-derived asparaginase;
- **Vyxeos® (daunorubicin and cytarabine) liposome for injection**, a product approved in the U.S. and in Europe (where it is marketed as Vyxeos® liposomal 44 mg/100 mg powder for concentrate for solution for infusion) for the treatment of adults with newly-diagnosed therapy-related acute myeloid leukemia, or t-AML, or AML with myelodysplasia-related changes, or AML-MRC; and
- **Zepzelca™ (lurbinectedin)**, a product approved by FDA and launched in July 2020 in the U.S. for the treatment of adult patients with metastatic small cell lung cancer, or SCLC, with disease progression on or after platinum-based chemotherapy.

Our strategy to create sustainable shareholder value is focused on:

- Strong commercial execution to drive diversified revenue growth and address unmet medical needs of our patients across our product portfolio including with rapid adoption of Xywav in the U.S., Sunosi growth globally and establishing Zepzelca as a treatment of choice for second line SCLC patients;
- Expanding and advancing our pipeline with internal and external patient-centric innovation to achieve a valuable product portfolio of durable, highly differentiated programs;
- Continuing to build a flexible, efficient, and productive development engine for targeted therapeutic conditions to identify and progress early- and mid-stage assets; and
- Investing in an efficient, scalable operating model and differentiated capabilities to enable growth; and unlock further value through indication expansion and global markets.

In 2020, consistent with our strategy, we continued to focus on research and development activities within our neuroscience and oncology therapeutic areas, such as our expansion into movement disorders and solid tumors, and exploring and investing in adjacent therapeutic areas that could further diversify our portfolio, such as post-traumatic stress disorders through our acquisition of SpringWorks Therapeutics, Inc.'s, fatty acid amide hydrolase, or FAAH, inhibitor program. For a summary of our ongoing research and development activities, see "Business—Research and Development" in this Part I, Item 1.

Proposed Acquisition of GW Pharmaceuticals

On February 3, 2021, we announced that we have entered into a definitive transaction agreement, or the GW Transaction Agreement, with GW Pharmaceuticals plc, or GW, under which a wholly-owned subsidiary of ours, Jazz Pharmaceuticals UK Holdings Limited, or Acquisition Sub, agreed to acquire GW. The GW Transaction Agreement provides, among other things, that, subject to the satisfaction or waiver of the conditions set forth in the GW Transaction Agreement, we (through Acquisition Sub) will acquire the entire issued share capital of GW, which we refer to in this report as the GW Acquisition. Under the GW Transaction Agreement, the consideration to be paid by us in the GW Acquisition consists of $220.00 per American Depositary Share in GW, to be paid in the form of $200 in cash and $20 in our ordinary shares, for total consideration of approximately $7.2 billion. The GW Acquisition is expected to close in the second quarter of 2021, subject to the satisfaction or waiver of the conditions set forth in the GW Transaction Agreement, including applicable regulatory approvals and the approval of GW shareholders.

Our Commercialized Products

Neuroscience

Xyrem. Xyrem is a product approved by FDA and marketed in the U.S. for the treatment of both cataplexy and EDS in both adult and pediatric patients with narcolepsy. Sodium oxybate, the active pharmaceutical ingredient, or API, in Xyrem, is a formulation of the sodium salt of gamma-hydroxybutyrate, an endogenous neurotransmitter and metabolite of gamma-aminobutyric acid.

Narcolepsy is a chronic, debilitating neurological disorder characterized by EDS and the inability to regulate sleep-wake cycles normally. It affects an estimated one in 2,000 people in the U.S., with symptoms typically appearing in childhood. There are five primary symptoms of narcolepsy, including EDS, cataplexy, disrupted nighttime sleep, sleep-related hallucinations, and sleep paralysis. While patients with narcolepsy may not experience all five symptoms, EDS, an essential symptom of narcolepsy, is present in all narcolepsy patients and is characterized by chronic, pervasive sleepiness as well as sudden irresistible and overwhelming urges to sleep (inadvertent naps and sleep attacks). Narcolepsy may affect many areas of life, including limiting a patient's education and employment opportunities, and may lead to difficulties at work, school, or in daily life activities like driving, operating machinery or caring for children. Patients with narcolepsy may also suffer from significant medical comorbidities, including cardiac disorders, depression, suicide risk, anxiety, diseases of the digestive system and respiratory diseases.

Cataplexy, the sudden loss of muscle tone with retained consciousness, can be one of the most debilitating symptoms of narcolepsy. Cataplexy is present in approximately 70% of patients with narcolepsy. Cataplexy can range from slight weakness or a drooping of facial muscles to the complete loss of muscle tone resulting in postural collapse. It may also impair a patient's vision or speech. Cataplexy is often triggered by strong emotions such as laughter, anger or surprise. Cataplexy can severely impair a patient's quality of life and ability to function.

Xyrem was approved in the U.S. for the treatment of cataplexy in adult patients with narcolepsy in 2002 and was approved for EDS in adult patients with narcolepsy in 2005. In October 2018, Xyrem was also approved in the U.S. for the treatment of cataplexy or EDS in pediatric narcolepsy patients ages seven and older. The American Academy of Sleep Medicine recommends Xyrem as a standard of care for the treatment of both cataplexy and EDS associated with narcolepsy.

In an effort to reach more patients who might benefit from our oxybate products, we continue to implement initiatives such as outreach to prescribers who treat narcolepsy, physician/healthcare provider education, enhanced patient and physician support services and unbranded disease awareness programs for the public.

Our marketing, sales and distribution of Xyrem in the U.S. are subject to a risk evaluation and mitigation strategy, or REMS, which is required by FDA to mitigate the risks of serious adverse outcomes resulting from inappropriate prescribing, abuse, misuse and diversion of Xyrem. Under this REMS, all of the Xyrem sold in the U.S. must be dispensed and shipped directly to patients or caregivers through a central pharmacy. Xyrem may not be stocked in retail pharmacies. Physicians and patients must complete an enrollment process prior to fulfillment of Xyrem prescriptions, and each physician and patient must receive materials concerning the serious risks associated with Xyrem before the physician can prescribe, or a patient can receive, the product. The central certified pharmacy must monitor and report instances of patient or prescriber behavior giving rise to a reasonable suspicion of abuse, misuse or diversion of Xyrem, and maintains enrollment and prescription monitoring information in a central database. The central pharmacy ships the product directly to the patient (or caregiver) by a courier service.

We have had exclusive agreements with Express Scripts Specialty Distribution Services, Inc., or ESSDS, the central pharmacy for Xyrem, to distribute Xyrem in the U.S. and provide patient support services related to Xyrem since 2002. In July 2020, upon expiration of

the existing exclusive agreements with ESSDS, we entered into new agreements with ESSDS with a two-year term. Our current agreements with ESSDS, which expire on July 1, 2022, may be terminated by either party at any time without cause on 180 days' prior written notice to the other party.

In 2020, net product sales of Xyrem were $1.7 billion, which represented 74% of our total net product sales.

Xywav. Xywav (formerly JZP-258) is a product approved by FDA for the treatment of cataplexy or EDS in both adult and pediatric patients with narcolepsy. Xywav is an oxybate product that contains 92% less sodium than Xyrem. In January 2020, we submitted a new drug application, or NDA, for Xywav for the treatment of both cataplexy and EDS in patients with narcolepsy and in connection with this submission, redeemed the priority review voucher, or PRV, we acquired in May 2018. FDA approved Xywav for this indication in July 2020 and we commenced the U.S. launch of Xywav in November 2020. The 92% reduction of sodium translates into a reduction of approximately 1,000 to 1,500 milligrams per day for a patient prescribed an oxybate product, depending on the dose. When patients start Xywav after a sodium oxybate product, Xywav treatment is initiated at the same dose and regimen as the sodium oxybate product (gram for gram) and titrated as needed based on efficacy and tolerability. The label for Xywav, unlike Xyrem, does not include a warning to prescribers to monitor patients sensitive to sodium intake, including patients with heart failure, hypertension or renal impairment.

Narcolepsy is a chronic condition where patients, by virtue of their diagnosis, are at increased risk of cardiovascular events and disease, and the impact of sodium on cardiovascular health is well established. There is also broad scientific consensus that reducing sodium consumption, which is a modifiable risk factor, is associated with clinically-meaningful reductions in blood pressure and cardiovascular disease risk. Given that narcolepsy is a life-long condition, we therefore believe that reducing sodium intake vs. the standard of care by 92% each and every day is a significant advancement for these patients. Health care providers and patients who understand the increased risk of cardiovascular disease faced by narcolepsy patients and who have been educated on the meaningful reduction in sodium from Xyrem to Xywav cite that meaningful reduction as a key reason for prescribing or starting on Xywav.

In approving Xywav, FDA approved a REMS to cover both Xywav and Xyrem. The Xywav and Xyrem REMS have the same requirements for both products and is also distributed by the central pharmacy through exclusive agreements with ESSDS.

In 2020, net product sales of Xywav were $15.3 million, which represented 1% of our total net product sales. Following the U.S. launch of Xywav in November 2020, approximately 1,900 patients were taking Xywav by the end of 2020. With respect to Xyrem and Xywav in the aggregate, average active oxybate patients on therapy was approximately 15,300 in the fourth quarter of 2020. Total net product sales of Xywav were offset by the cost of launch related co-pay coupons and a free product program for certain qualified patients. We expect to have broad commercial payor coverage within the first 6 to 9 months following launch. To date, we have entered into agreements with various entities and have achieved coverage for Xywav for over 60% of commercial lives.

Sunosi. Sunosi received FDA approval in March 2019 and was launched in the U.S. in July 2019 to improve wakefulness in adult patients with EDS associated with narcolepsy or OSA. Sunosi was also approved in January 2020 by the EC to improve wakefulness and reduce EDS in adults with narcolepsy (with or without cataplexy) or OSA. We launched Sunosi in Germany for the treatment of narcolepsy in May 2020 and in Denmark in October 2020. We expect to continue the rolling launch in Europe as we secure pricing and reimbursement approvals in more European countries.

OSA, commonly referred to as sleep apnea, is a highly prevalent disease, and EDS, a major symptom of OSA, is characterized by the inability to stay awake and alert during the day resulting in unplanned lapses into sleep or drowsiness. Although positive airway pressure therapy, with its most common form being continuous positive airway pressure, or CPAP, has been shown to be an effective therapy for sleep apnea that frequently results in improvement in EDS in many patients, not all patients tolerate CPAP therapy and among those who tolerate CPAP, usage is highly variable. EDS may persist in people with OSA despite using CPAP.

In 2020, net product sales of Sunosi were $28.3 million, which represented 1% of our total net product sales.

Oncology

Defitelio. Defibrotide, the API in Defitelio, is approved for the treatment of VOD, a potentially life-threatening complication of HSCT, and is in development for other complications following anti-cancer treatment. Defibrotide is the sodium salt of a complex mixture of single-stranded oligodeoxyribonucleotides derived from porcine DNA. Defibrotide mediates its effects via interaction with endothelial cells. Non-clinical data suggest that defibrotide stabilizes endothelial cells by reducing endothelial cell activation and by protecting them from further damage.

Stem cell transplantation is a frequently used treatment modality for hematologic cancers and other conditions in both adults and children. Certain conditioning regimens used as part of HSCT can damage the cells that line the hepatic vessels, which is thought to lead to

the development of VOD, also referred to as SOS, a blockage of the small vessels in the liver, that can lead to liver failure and potentially result in significant dysfunction in other organs such as the kidneys and lungs. Severe VOD is the most extreme form of VOD and is associated with multi-organ failure and high rates of morbidity and mortality. An analysis of retrospective data, prospective cohort studies and clinical trials published between 1979 and 2007 found that the 100-day mortality rate in severe VOD cases is greater than 80%.

The EC granted marketing authorization under exceptional circumstances for Defitelio for the treatment of severe VOD in adults and children undergoing HSCT in 2013. We commenced a rolling launch of Defitelio in European countries in 2014.

In 2016, FDA approved our NDA for Defitelio for the treatment of adult and pediatric patients with VOD with renal or pulmonary dysfunction following HSCT. We launched Defitelio in the U.S. shortly after FDA approval. We also launched defibrotide in Canada in 2017. In June 2019, Nippon Shinyaku Co., Ltd., the partner to whom we have granted exclusive rights to develop and commercialize defibrotide in Japan, received marketing authorization from Japan's Ministry of Health, Labour and Welfare and launched defibrotide in Japan in September 2019. Further geographic expansion occurred in July 2020 and September 2020, as Defitelio was approved by the Australian Therapeutic Goods Administration and Swissmedic in Switzerland, respectively, for the treatment of VOD.

In 2020, Defitelio/defibrotide product sales were $195.8 million, which represented 8% of our total net product sales.

Erwinaze. Erwinaze (called Erwinase in markets outside the U.S.) is a biologic product used in conjunction with chemotherapy to treat patients with ALL who have developed hypersensitivity to *E. coli*-derived asparaginase. Originally developed by Public Health England, a national executive agency of the United Kingdom, or UK, Erwinaze is an asparaginase, a type of enzyme that can deprive leukemic cells of an amino acid essential for their growth. It is derived from a rare bacterium (*Erwinia chrysanthemi*) and is immunologically distinct from *E. coli*-derived asparaginase and suitable for patients with hypersensitivity to *E. coli*-derived treatments.

For ALL patients with hypersensitivity to *E. coli*-derived asparaginase, Erwinaze can be a crucial component of their therapeutic regimen. Current treatment guidelines and protocols recommend switching a patient receiving *E. coli*-derived asparaginase to treatment with Erwinaze if the patient's hypersensitivity reaction to the *E. coli*-derived asparaginase is clinically meaningful, indicating that the hypersensitivity reaction has resulted in an intervention or interruption in infusion occurring in the patient's treatment regimen. While treatment protocols for pediatric, adolescent and young adult (up to age 39) patients commonly include asparaginase, adult protocols do not.

First approved by FDA under a biologics license application, or BLA, for administration via intramuscular injection in conjunction with chemotherapy, Erwinaze was launched in the U.S. in 2011. In 2014, FDA approved a supplemental BLA for administration of Erwinaze via intravenous infusion in conjunction with chemotherapy.

Erwinaze was exclusively licensed to us for worldwide marketing, sales and distribution by Porton Biopharma Limited, or PBL, a company that is wholly owned by the UK Department of Health and Social Care. Our license and supply agreement with PBL, which includes our license to Erwinaze trademarks and manufacturing know-how, expired on December 31, 2020. Under our agreement with PBL, we have the right to sell certain Erwinaze inventory for a post-termination sales period of 12 months and retain ownership of certain data, know-how and other rights, including the BLA for Erwinaze in the U.S. and marketing authorizations for Erwinase in several other countries. During this post-termination period, PBL also manufactures the product for us and is our sole supplier for Erwinaze. We are obligated to make tiered royalty payments to PBL based on worldwide net sales of Erwinaze. Subject to successful receipt, release and FDA approval for the batches from PBL, we expect to distribute available Erwinaze supply during the first half of 2021.

In 2020, net product sales of Erwinaze were $147.1 million, which represented 6% of our total net product sales.

Vyxeos. Vyxeos is a liposomal formulation of a fixed ratio combination of daunorubicin and cytarabine for intravenous infusion that is indicated for the treatment of adults with newly-diagnosed t-AML or AML-MRC and has been shown to have synergistic effects at killing leukemia cells in vitro and in animal models. Vyxeos is the first drug delivery combination product based on our CombiPlex technology platform to be approved by FDA and the EC.

AML is a rapidly progressing and life-threatening blood cancer that begins in the bone marrow, which produces most of the body's new blood cells. AML cells crowd out healthy cells and move aggressively into the bloodstream to spread cancer to other parts of the body. AML is a relatively rare disease representing about 1% of all new cancer cases and has the lowest survival rate of any form of leukemia. Patients with newly diagnosed t-AML or AML-MRC may have a particularly poor prognosis.

In 2017, we launched Vyxeos in the U.S. after FDA approved our NDA for the treatment of adults with newly-diagnosed t-AML or AML-MRC. In August 2018, the EC granted marketing authorization for Vyxeos and, as part of our rolling launch of Vyxeos in Europe, we are continuing to make pricing and reimbursement submissions in European countries.

In 2020, Vyxeos product sales were $121.1 million, which represented 5% of our total net product sales.

Zepzelca. In furtherance of our interest in and efforts to expand our oncology therapeutic area, in December 2019, we entered into an exclusive license agreement with Pharma Mar, S.A., or PharmaMar, pursuant to which we obtained exclusive U.S. development and commercialization rights to Zepzelca.

Zepzelca for injection (4 mg) is approved by FDA to treat adults with metastatic small cell lung cancer, or SCLC, with disease progression on or after platinum-based chemotherapy. Zepzelca is approved based on response rate and how long the response lasted. Additional studies will further evaluate the benefit of Zepzelca for this use.

Zepzelca was granted orphan drug designation for SCLC by FDA in August 2018. In December 2019, PharmaMar submitted an NDA to FDA for accelerated approval of Zepzelca for relapsed SCLC based on data from a Phase 2 trial, and in February 2020, FDA accepted the NDA for filing with priority review. In June 2020, FDA granted accelerated approval of Zepzelca for the treatment of adult patients with metastatic SCLC with disease progression on or after platinum-based chemotherapy. In October 2020, we entered into an amendment to the license agreement with PharmaMar to expand our exclusive license to include rights to develop and commercialize Zepzelca in Canada. The term of the amended license agreement extends on a licensed product-by-licensed product and country-by-country basis until the latest of: (i) expiration of the last PharmaMar patent covering Zepzelca in that country (subject to certain exclusions), (ii) expiration of regulatory exclusivity for Zepzelca in that country and (iii) 12 years after the first commercial sale of Zepzelca in that country. We have the right to terminate the amended license agreement at will upon a specified notice period, and either party can terminate the amended license agreement for the other party's uncured material breach or bankruptcy. For a description of additional terms of the amended license agreement, including financial terms, see Note 3, Asset Acquisitions, Collaborations and Disposition—License Agreement of the Notes to Consolidated Financial Statements included in this Annual Report on Form 10-K.

In December 2020 we, in conjunction with PharmaMar, announced results from the ATLANTIS Phase 3 study evaluating Zepzelca in combination with doxorubicin for adult patients with SCLC whose disease progressed following one prior platinum-containing line. The study did not meet the pre-specified criteria of significance for its primary endpoint. Key secondary and subgroup analyses favored the lurbinectedin combination arm. Patients received lurbinectedin at 2.0mg/m^2 in the combination arm, which is lower than the FDA approved dose of Zepzelca at 3.2mg/m^2. Lurbinectedin monotherapy was not tested in ATLANTIS. We anticipate initiating the Phase 4 study for the Zepzelca program, with an objective to provide critical data to complement the findings from the Basket trial, which supported the accelerated approval of Zepzelca.

In 2020, Zepzelca product sales were $90.4 million, which represented 4% of our total net product sales.

Research and Development

A key aspect of our growth strategy is our continued investment in our evolving and expanding research and development activities. We actively explore new options for patients including novel compounds, small molecule advancements, biologics and innovative delivery technologies. We are focused on research and development activities within our neuroscience and oncology therapeutic areas, such as our expansion into movement disorders and solid tumors, and exploring and investing in adjacent therapeutic areas that could further diversify our portfolio.

Our development activities encompass all stages of development and currently include clinical testing of new product candidates and activities related to clinical improvements of, or additional indications or new clinical data for, our existing marketed products. We have also expanded into preclinical exploration of novel therapies primarily through external research collaborations, including precision medicines in hematology and oncology. We are increasingly leveraging our growing research and development function, and have supported additional investigator-sponsored trials that will generate additional data related to our products. We have a number of licensing and collaboration agreements with third parties, including biotechnology companies, academic institutions and research-based companies and institutions,related to preclinical and clinical research and development activities in hematology and in precision oncology, as well as in neuroscience.

Our current and planned development activities in our neuroscience therapeutic area are focused on JZP-258 for the treatment of idiopathic hypersomnia, JZP-385, JZP-150 and JZP-324, as well as exploring additional indications for Sunosi.

JZP-258 for the treatment of idiopathic hypersomnia. In October 2020, we announced positive top-line results from a Phase 3 clinical trial evaluating JZP-258 in adult patients with idiopathic hypersomnia, a chronic, neurological disorder that is primarily characterized by EDS and that currently has no approved therapies in the U.S. We completed the rolling submission of a supplemental new drug application, or sNDA, in February 2021, and if approved by FDA in a timely manner, we expect a potential launch of JZP-258 in the fourth quarter of 2021. FDA granted Fast Track designation for JZP-258 for the treatment of idiopathic hypersomnia in September 2020.

JZP-385. JZP-385 is a T-type calcium channel modulator that is a small molecule currently in development for the treatment of essential tremor. We acquired JZP-385 in our acquisition of Cavion, Inc., or Cavion, a clinical-stage biotechnology company, in August 2019. We expect to initiate a Phase 2b study of JZP-385 in mid-year 2021.

JZP-150. JZP-150 is a FAAH inhibitor program for the potential treatment of post-traumatic stress disorder and associated symptoms. In October 2020, we entered into an asset purchase and exclusive license agreement with SpringWorks, under which we acquired SpringWorks' FAAH inhibitor program, including an assignment of SpringWorks' proprietary FAAH inhibitor PF-04457845, or PF-'845, now named JZP-150. We expect to initiate a Phase 2 study of JZP-150 in late 2021.

JZP-324. We are also pursuing early-stage activities related to the development of JZP-324, an extended-release low sodium, oxybate formulation that we believe could provide a clinically meaningful option for narcolepsy patients.

Our current and planned research and development activities in our oncology therapeutic area are focused on JZP-458, exploring additional indications for Defitelio and Vyxeos, generating additional clinical data for Zepzelca and Vyxeos, including in combination with other therapeutic agents, and the research and development of new product candidates through our external collaborations.

JZP-458. JZP-458 is a recombinant *Erwinia* asparaginase that uses a novel *Pseudomonas fluorescens* expression platform, which is being developed for use as a component of a multi-agent chemotherapeutic regimen in the treatment of pediatric and adult patients with ALL or lymphoblastic lymphoma, or LBL, who are hypersensitive to *E. coli*-derived asparaginase products. JZP-458 was granted Fast Track designation by FDA in October 2019 for the treatment of this patient population, and in December 2019, the first patient was enrolled in the pivotal Phase 2/3 clinical study for JZP-458 conducted in collaboration with the Children's Oncology Group. In December 2020, we initiated the submission of a BLA to FDA for JZP-458 under Real-Time Oncology Review, or RTOR, pilot program, with the potential approval and launch in the U.S. in mid-year of 2021.

Defitelio. Our Defitelio clinical development strategy generally focuses on the prevention and treatment of serious diseases associated with stem cell transplantation and endothelial cell damage.

Vyxeos. Our Vyxeos clinical development strategy is designed to target potential new patient segments across the AML landscape and to generate clinical data on Vyxeos when used in combination with other therapeutic agents. As reflected in the table below, we are pursuing this strategy by sponsoring clinical trials, working with cooperative groups who are conducting clinical trials, and partnering with The University of Texas MD Anderson Cancer Center, or MD Anderson. In August 2018, we announced a five-year collaboration with MD Anderson to evaluate potential treatment options for hematologic malignancies, with a near-term focus on Vyxeos, and shortly thereafter, commenced development activities under this collaboration. In addition, there are multiple ongoing investigator-sponsored trials studying Vyxeos.

Zepzelca. We anticipate the initiation in 2021 of a Phase 3 study evaluating Zepzelca in combination with immunotherapy versus immunotherapy alone in patients with extensive-stage SCLC after induction chemotherapy.

CombiPlex Platform. We are also evaluating the use of our CombiPlex delivery technology platform in a number of therapeutic combinations in oncology as part of our internal oncology research and development activities. CombiPlex enables the design and rapid evaluation of various combinations of therapies to deliver enhanced anti-cancer activity by identifying an optimal synergistic ratio of drugs in vitro and fixing this ratio in a nanoscale delivery complex that maintains and then coordinates the release of the synergistic combination after administration. CombiPlex utilizes two proprietary nanoscale delivery platforms: liposomes to control the release and distribution of water-soluble drugs and drugs that are both water- and fat-soluble (amphipathic), and nanoparticles to control the release and distribution of non-water-soluble (hydrophobic) drugs.

Through third parties, we are also pursuing preclinical and clinical research and development activities in hematology and in precision oncology under a number of licensing and collaboration agreements, including with:

- Codiak BioSciences, Inc., or Codiak, for an exclusive, worldwide, royalty-bearing license to develop, manufacture and commercialize potential therapeutic candidates directed at five targets to be developed using Codiak's engEx™ precision engineering platform for exosome therapeutics;
- Pfenex, Inc., which was acquired by Ligand Pharmaceuticals Incorporated, or Ligand, for rights to an early-stage long-acting *Erwinia* asparaginase and an option to negotiate a license for a recombinant pegaspargase product candidate;
- XL-protein GmbH, or XLp, for rights to use XLp's PASylation® technology to extend the plasma half-life of selected asparaginase product candidates; and

- Redx Pharma, or Redx, for preclinical collaboration activities related to the pan-Raf inhibitor program that we purchased from Redx for the potential treatment of Raf and Ras mutant tumors and to discover and develop drug candidates for two cancer targets in the Ras/Raf/MAP kinase pathway.

Below is a summary of our key ongoing and planned development projects related to our products and pipeline and their corresponding current stages of development:

Neuroscience

Product Candidates	Description
Regulatory	
JZP-258 (oxybate; 92% sodium reduction)	Idiopathic hypersomnia
Phase 2b	
JZP-385	Essential tremor (planned study)
Phase 2	
JZP-150	Post-traumatic stress disorder (planned study)
Phase 1	
JZP-324	Oxybate extended-release formulation
Preclinical	
Undisclosed targets	Neuroscience

Oncology

Product Candidates	Description
Regulatory	
JZP-458 (recombinant *Erwinia* asparaginase) (pivotal Phase 2/3)	ALL/LBL
Phase 3	
Vyxeos	AML or high-risk Myelodysplastic Syndrome, or MDS (AML18 and AML19) (cooperative group studies) Newly diagnosed adults with standard- and high-risk AML (AML Study Group cooperative group study) Newly diagnosed pediatric patients with AML (Children's Oncology Group cooperative group study)
Phase 2	
Vyxeos	High-risk MDS (European Myelodysplastic Syndromes Cooperative Group cooperative group study) Newly diagnosed older adults with high-risk AML (planned cooperative group study)
Vyxeos + venetoclax	De novo or relapsed/refractory, or R/R, AML (MD Anderson collaboration study)
Phase 1	
Vyxeos	Low intensity dosing for higher risk MDS (MD Anderson collaboration study)
Vyxeos + other approved therapies	R/R AML or hypomethylating agent failure MDS (MD Anderson collaboration study) First-line, fit AML (Phase 1b study) Low intensity therapy for first-line, unfit AML (Phase 1b study)
Preclinical	
CombiPlex	Hematology/oncology exploratory activities
JZP-341 (long-acting *Erwinia* asparaginase)	ALL and other hematological malignancies (collaboration with Ligand)
Recombinant pegaspargase	Hematological malignancies (Jazz opt-in opportunity with Ligand)
Pan-Raf inhibitor program	Raf and Ras mutant tumors (acquired from Redx, which is continuing development)
Undisclosed targets	Ras/Raf/MAP kinase pathway (collaboration with Redx)
Exosome targets (NRAS, STAT3 and 3 others)	Hematological malignancies/solid tumors (collaboration with Codiak)
Defitelio	Exploratory activities

As a result of the effects of the COVID-19 pandemic, we have taken measures to implement remote and virtual approaches, including remote data monitoring where possible, to maintain patient safety and trial continuity and to preserve study integrity. Although we have seen limited COVID-19-related impact to our mid- and late-stage clinical trial activity, despite delays in initiating trial sites, if the effects of the COVID-19 pandemic become more severe, we could experience significant disruptions to our clinical development timelines, which would adversely affect our business, financial condition, results of operations and growth prospects. For a more detailed discussion of the impact of the COVID-19 pandemic on our clinical trial activities, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Overview—COVID-19 Business Update" in Part II, Item 7 of this Annual Report on Form 10-K.

For 2021 and beyond, we expect that our research and development expenses will continue to increase from previous levels, particularly as we prepare for anticipated regulatory submissions and data read-outs from clinical trials, initiate and undertake additional clinical trials and related development work and potentially acquire rights to additional product candidates.

Subsequent Events

GW Transaction Agreement

On February 3, 2021, we announced that we have entered into the GW Transaction Agreement with GW, under which a wholly-owned subsidiary of ours, Acquisition Sub, agreed to acquire GW. The GW Transaction Agreement provides, among other things, that subject to the satisfaction or waiver of the conditions set forth in the GW Transaction Agreement, Acquisition Sub will acquire the entire issued share capital of GW pursuant to a scheme of arrangement under Part 26 of the United Kingdom Companies Act 2006, or Scheme of Arrangement, which we refer to as the GW Acquisition.

Under the GW Transaction Agreement, at the effective time of the Scheme of Arrangement, all GW ordinary shares issued and outstanding will be transferred to Acquisition Sub, and the holders of GW ordinary shares will have the right to receive, for each such share, (a) $16.66^{2}/_{3}$ in cash and (b) an amount of our ordinary shares determined based on the exchange ratio, which exchange ratio will be determined as follows:

- If the volume-weighted average sales price of our ordinary shares, as determined in accordance with the GW Transaction Agreement, or the Defined VWAP, is greater than $139.72 but less than $170.76, the exchange ratio will be an amount equal to the quotient obtained by dividing (x) $1.66^{2}/_{3}$ by (y) the Defined VWAP;
- If the Defined VWAP is equal to or less than $139.72, the exchange ratio will be 0.011929; or
- If the Defined VWAP is an amount equal to or greater than $170.76, the exchange ratio will be 0.009760.

Because each American Depositary Share in GW, or GW ADSs, represents a beneficial interest in 12 GW ordinary shares, holders of GW ADSs will be entitled to receive 12 times the foregoing cash and share amounts, or (1) $200 in cash and (2) $20 in the form of our ordinary shares with the actual number of our ordinary shares being determined based on the exchange ratio set out above. The total consideration to be paid by us for the entire issued share capital of GW is approximately $7.2 billion.

The respective obligations of GW and us to consummate the GW Acquisition are subject to the satisfaction or waiver of a number of customary conditions, including the approval by GW's shareholders of the Scheme of Arrangement, obtaining certain regulatory approvals, including expiration of the applicable waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, and obtaining sanction of the Scheme of Arrangement by the High Court of Justice of England and Wales. The GW Acquisition is not subject to approval by our shareholders, nor is the GW Acquisition subject to a financing contingency. The GW Acquisition is expected to close in the second quarter of 2021, subject to the satisfaction or waiver of the conditions set forth in the GW Transaction Agreement. The GW Transaction Agreement contains customary representations and warranties given by GW and us, covenants regarding the conduct of GW's business prior to the consummation of the GW Acquisition, termination rights and other customary provisions.

Financing Commitment

On February 3, 2021, in connection with the execution of the GW Transaction Agreement, we entered into a commitment letter with BofA Securities, Inc., Bank of America, N.A. and JPMorgan Chase Bank, N.A. pursuant to which these commitment parties have committed to provide us with a senior secured revolving credit facility in an aggregate principal amount of up to $500.0 million, a senior secured term loan B facility in an aggregate principal amount of up to $3,150.0 million and a senior secured bridge loan facility in an aggregate principal amount of up to $2,200.0 million to, among other things, finance our obligations in respect of the GW Acquisition. The effectiveness of such credit facilities is subject to the occurrence of customary closing conditions, including the consummation of the GW Acquisition.

Commercialization Activities

We have commercial operations primarily in the U.S., Europe and Canada. In the U.S., our products are commercialized through a number of teams, including a team of experienced, trained sales professionals who provide education and promote Xyrem, Xywav, Sunosi, Defitelio, Erwinaze, Vyxeos and Zepzelca to healthcare providers in the appropriate specialties for each product, a team that interacts with payors and institutions to ensure access and coverage for the products, and a team that distributes the products throughout the U.S. healthcare system (wholesalers, pharmacies, hospitals, and community and academic institutions) and provides patient services.

In Canada and in approved markets in Europe where we commercialize Defitelio, Erwinase and Vyxeos, we have a field force of hematology sales specialists. In markets where these products either are not approved or are unable to be promoted under local regulation, we have medical affairs personnel responsible for responding to medical information requests and for providing information consistent with local treatment protocols with respect to such products. In certain European markets, we have a sales team and a team of medical science liaisons supporting our rolling launch of Sunosi in Europe. Outside the U.S., we directly market Xyrem in Canada for the treatment of cataplexy in patients with narcolepsy. We also utilize distributors in certain markets outside the U.S. where we do not market our products directly.

Our commercial activities include marketing related services, distribution services and commercial support services. We employ third party vendors, such as advertising agencies, market research firms and suppliers of marketing and other sales support-related services, to assist with our commercial activities. We also provide reimbursement support for our U.S. markets.

We intend to scale the size of our sales force as appropriate to effectively reach our target audience in the specialty markets in which we currently operate. We promote Defitelio, Erwinaze, Vyxeos and Zepzelca to many hematology and oncology specialists who operate in the same hospitals, and we believe that we benefit from operational synergies from this overlap. We expect that a potential launch of JZP-458 in the U.S. or Europe would require minimal additional support. Continued growth of our current marketed products and the launch of any future products may require further expansion of our field force and support organization in and outside the U.S. In addition, beginning in March 2020, we transitioned our field-based sales, market access, reimbursement and medical employees out of the field and suspended work-related travel and in-person customer interactions as a result of the COVID-19 pandemic. We utilized technology to continue to engage healthcare professionals and other customers virtually to support patient care. In late June 2020, as clinics and institutions began to allow in-person interactions pursuant to local health authority and government guidelines, our field teams resumed in-person interactions with healthcare professionals and clinics combined with virtual engagement. The level of renewed engagement varies by account, region and country and may be adversely impacted in the future as a result of the continuing impact of the COVID-19 pandemic. For a more detailed discussion of the impact of the COVID-19 pandemic on our commercialization activities, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Overview—COVID-19 Business Update" in Part II, Item 7 of this Annual Report on Form 10-K.

Human Capital Management and Environment, Health and Safety

Jazz is committed to creating a company where the culture embodies our corporate purpose to innovate to transform the lives of patients and reflects our key goals: (1) be a great place to work; and (2) live our core values of *Integrity, Collaboration, Passion, Innovation, and Pursuit of Excellence.*

Employee Demographics. As of February 16, 2021, Jazz employed approximately 1,940 people worldwide, of which approximately 1,250 were employed in the U.S. and approximately 690 were outside the U.S. in the UK, Ireland and across the European Union, or EU. As an innovative biopharmaceutical company, we have over 400 full-time employees — greater than 20% of our global workforce — supporting our research and development activities. We consider our employee relations to be very good.

Diversity, Equity and Inclusion. We make diversity, equity and inclusion, or DEI, a priority because it is a key to unlocking the potential of our people and living our core values.

We strive to create a workplace culture that fosters the ability to be your authentic self and contribute boldly. We aspire to have multi-dimensional diversity through our entire Jazz workforce. We seek to surround underrepresented groups with allies to enable all employees to thrive equitably. Our Board and management team are committed to fostering DEI in all parts of our business.

Our DEI strategy includes: (1) building a more diverse workforce in terms of gender identity, race, ethnicity and sexual orientation and that represent unique backgrounds, experiences, thoughts and talents; (2) investing in developing our diverse talent and driving equity; and (3) and creating a culture of inclusion and belonging.

We designed our Employee DEI program to empower employees to guide and support our strategy and programs related to hiring diverse talent and using education and communication to continue fostering an inclusive environment. We also have a DEI Delegation, a committee of employees focused on helping to embed DEI into all we do.

Jazz ConcERTos, our employee resource teams, are self-led teams of employee volunteers with diverse backgrounds who come together to promote innovation through inclusion and to increase awareness of all dimensions of diversity. We believe that these groups will contribute positively to Jazz's culture and business success by working cross-functionally to drive innovation, helping to decrease unconscious bias, and encouraging employees to be their whole selves so they can perform at their best.

We have established goals related to increasing all dimensions of diversity, including representation of females and people of color, particularly at the leadership level (i.e., employees at executive director and above). In this regard, we have made some meaningful progress, as demonstrated by the following, as of February 16, 2021:

- Approximately 40% of our board of directors is diverse in terms of gender and ethnicity.
- 45% of our Executive Committee are women.
- Females represent 60% of our global workforce and 40% at the leadership level (employees at executive director and above).
- In the U.S., people of color represent 32% of our U.S. workforce and 18% at the leadership level.

While we are proud of what we have accomplished to date, we recognize there is still much to do. We remain committed to furthering our goals of providing a diverse, equitable and inclusive workplace that is supportive of all backgrounds, including among our broader leadership.

Employee Engagement. Jazz has a strong employee value proposition anchored in our shared commitment to our purpose to innovate to transform the lives of patients. We are committed to ensuring that we create a rich culture that provides a great place to work for our employees through company-wide efforts to connect employees to our shared purpose and to create an environment where our people feel valued, respected, and able to contribute to their full potential. We believe employee engagement and the power of our employee voices is foundational to strong performance. We have transparent and regular communication channels with our employees consisting of many forms – including all employee meetings, regular communication messages from executive leadership, top leadership forums, pulse check feedback mechanisms and engagement surveys.

Our employee feedback surveys are designed to help us measure overall employee engagement and we consistently achieve participation rates between 80 to 90%. We consistently have high levels of engagement measured by feelings of connection to our mission, Jazz as a great place to work where their well-being is supported and they feel valued and included. It also provides important insight into the areas where we need to focus in the year ahead for several key components of our company objectives, such as decision-making, opportunities for development, and diversity, equity and inclusion. Our survey informs programs and activities aligned with achieving our corporate objectives and achieving our goal of evolving our operating culture for agility and scalability.

Our Community Beat teams are employee volunteers and representatives that promote company culture and create a sense of belonging and camaraderie among our employees. They foster programs and engagement activities on a local level to draw better connections to employees with the company strategy and business milestones, give back through community service, and promote different health and well-being initiatives.

Growth, Development and Total Rewards. We understand that empowering people to find new and better ways of doing things, to gain new experiences and to development new capabilities can also support our growth and achievements as a company. The exciting opportunities within our business provide rich and ample learning opportunities and experiences for career growth.

Our talent strategy focuses on attracting the best talent, recognizing and rewarding the performance of our employees as defined by both *what* they accomplished and *how* they accomplished it, and continually developing our talent through new experiences and learning opportunities.

We recently launched a new performance management system to support our culture of learning, feedback, and continual growth. We encourage all employees to have an individual development plan to outline learning and growth interests and focus areas. We invest in manager and leadership development that emphasizes the important behaviors and values to successfully lead others and promote our culture. We offer tuition reimbursement in our major markets aimed at growth and career development.

Our management and leadership teams place significant focus and attention to diversity, capability development, and succession planning for critical roles. We regularly review talent development and succession plans for each of our functions to successfully maintain business operations and develop a pipeline of talent. We have goals concerning employee retention, diversity, and talent development.

We provide our employees with what we believe to be market competitive and locally relevant compensation and benefits that support our overarching strategy to attract, retain and reward highly talented employees in an extremely competitive and dynamic industry.

We strive to create a culture of health and well-being throughout the organization by offering a diverse and customizable set of programs focusing on employee experience, self-care, work-life balance, flexibility and early intervention. In addition to traditional employee benefits, Jazz supports employees and their families through access to a suite of innovative programs that are designed to enhance their physical, financial, emotional and social well-being.

Workplace Safety & Employee Care During COVID-19. Workplace safety is always a top priority for Jazz. To create and sustain a safe and healthy workplace, we have implemented initiatives designed to address risk evaluation, education and training of employees, use of appropriate personal protective equipment, and compliance with relevant national and international health and safety standards.

In response to COVID-19, we launched a new employee support framework focused on Care, Connection, Continuity and Consciousness (our "4Cs") to enable our employees to live into our values and support one another while doing everything we can to deliver on our patient mission. Important to this framework were new leader expectations and tools given the rise and complexity of emerging employee demands and needs – including more flexibility to address personal needs, a greater connection to understand the whole person and their lives, and more active support surrounding social injustice. For example, we provided productivity and collaboration tools and resources for employees working remotely, including training and toolkits to help leaders effectively lead and manage remote teams; increased flexibility within work schedules and leave programs to support employees caring for children and others; expanded employees assistance and mindfulness programs to help employees and their families manage anxiety, stress, and overall wellbeing; and increased investment in resources focused on inclusion and belonging.

Environment, Health and Safety. Our operations are subject to complex and increasingly stringent environmental, health and safety laws and regulations in the countries where we operate and, in particular, in Italy and Ireland where we have manufacturing facilities. Our manufacturing activities involve the controlled storage, use and disposal of chemicals and solvents. Environmental and health and safety authorities in Italy and Ireland administer laws governing, among other matters, the emission of pollutants into the air (including the workplace), the discharge of pollutants into bodies of water, the storage, use, handling and disposal of hazardous substances, the exposure of persons to hazardous substances, and the general health, safety and welfare of employees and members of the public. In certain cases, such laws, directives and regulations may impose strict liability for pollution of the environment and contamination resulting from spills, disposals or other releases of hazardous substances or waste. Costs, damages and/or fines may result from the presence, investigation and remediation of such contamination at properties currently or formerly owned, leased or operated by us or at off-site locations, including where we have arranged for the disposal of hazardous substances or waste. In addition, we may be subject to third party claims, including for natural resource damages, personal injury and property damage, in connection with such contamination.

We seek to operate our manufacturing facilities in an environmentally responsible way to protect our people, our business, our environment and the local communities in which we operate. In light of the potential impact of our business on the environment, we have adopted a number of internal environmental policies and management systems designed to manage our operations in compliance with applicable laws, directives and regulations on environmental protection and in support of environmental sustainability and local biodiversity. Our environmental policies and management systems include procedures for assessing compliance with applicable environmental laws and regulations and reporting incidents of non-compliance to applicable governmental authorities. For example, we have environmental policies governing both of our manufacturing facilities in Athlone, Ireland and Villa Guardia (Como), Italy, which demonstrate our commitment to environmental sustainability and require us to minimize resource use (e.g., energy and water) and waste generation, optimize the use of raw materials, and undertake continuous improvement in environmental performance, with an emphasis on pollution prevention.

Competition

The biopharmaceutical industry is highly competitive. Our products compete, and our product candidates may in the future compete, with currently existing therapies, product candidates currently under development by us and others and/or future product candidates, including new chemical entities that may be safer, more effective or more convenient than our products. Any products that we develop may be commercialized in competitive markets, and our competitors, which include large global pharmaceutical companies and small research-based companies and institutions, may succeed in developing products that render our products obsolete or noncompetitive.

With respect to competition we face from generic drugs, certain U.S. state laws allow for, and in some instances in the absence of specific instructions from the prescribing physician mandate, the dispensing of generic products rather than branded products when a generic version is available. Generic competition often results in decreases in the prices at which branded products can be sold.

In particular, our products and most advanced product candidates face or may face competition as described below:

- *Xyrem and Xywav*. While Xyrem and Xywav are currently the only products approved by FDA and marketed in the U.S. for the treatment of both cataplexy and EDS in both adult and pediatric patients with narcolepsy, we and others have launched products to treat EDS in narcolepsy and may in the future launch products to treat cataplexy in narcolepsy that are competitive with or disrupt the market. In the future, we expect to face competition from authorized generic and generic versions of sodium oxybate. For a description of generic versions of sodium oxybate and/or new products for treatment of cataplexy and/or EDS that could compete with, or otherwise disrupt the market for, Xyrem and Xywav, as well as a description of our settlement

agreements with abbreviated new drug application, or ANDA, filers, see the risk factor under the heading "*The introduction of new products in the U.S. market that compete with, or otherwise disrupt the market for, our oxybate products and product candidates would adversely affect sales of our oxybate products and product candidates"* in Part I, Item 1A of this Annual Report on Form 10-K.

In addition to generic competition, Xyrem and Xywav may face competition in the future from other new sodium oxybate formulations for treatment of narcolepsy. In December 2020, Avadel Pharmaceuticals plc, or Avadel, announced the filing of a NDA for an extended-release formulation of sodium oxybate which uses its proprietary technology for the treatment of EDS and cataplexy in patients with narcolepsy. Avadel has also announced that it has obtained an orphan drug designation from FDA for its extended-release sodium oxybate formulation. To obtain approval with orphan drug exclusivity, Avadel will have to show clinical superiority to Xyrem and Xywav. We cannot predict the timing or approvability of Avadel's sodium oxybate product candidate or how FDA will evaluate any clinical superiority arguments that either we or Avadel may make, but in any event, we expect to face competition from Avadel, if its product candidate is approved.

Xyrem and Xywav may also face increased competition from new branded entrants to treat EDS in narcolepsy such as pitolisant, which has been approved by FDA for the treatment of both cataplexy and EDS in adult patients with narcolepsy. Other companies have announced that they have product candidates in various phases of development to treat the symptoms of narcolepsy, such as Axsome Therapeutics, Inc.'s reboxetine, and various companies are performing research on orexin agonists for the treatment of sleep disorders.

In addition, we are also aware that prescribers often prescribe branded or generic medications for cataplexy before prescribing or instead of prescribing oxybate therapy in Xyrem or Xywav, and that payors often require patients to try such medications before they will cover Xyrem or Xywav, even if they are not approved for this use. For example, prescribers often treat mild cataplexy with drugs that have not been approved by FDA for this indication, including tricyclic antidepressants and selective serotonin reuptake inhibitors or selective norepinephrine reuptake inhibitors. We are also aware that branded or generic stimulants may be prescribed off-label for treatment of EDS in narcolepsy. Wake-promoting agents modafinil and armodafinil, including both branded and generic equivalents, are approved for the treatment of EDS in narcolepsy and other conditions, and may be used in conjunction with or instead of Xyrem or Xywav.

- *Sunosi*. Sunosi faces competition from existing branded and generic products that treat EDS or improve wakefulness in adult patients with narcolepsy or OSA in a competitive retail pharmacy market. To successfully commercialize Sunosi, we need to differentiate Sunosi from other branded and generic products that treat EDS in patients with narcolepsy, including stimulants, wake-promoting agents, such as modafinil and armodafinil, and generic versions of stimulants and wake-promoting agents. We are also aware that stimulants are prescribed off-label for patients to treat excessive sleepiness in OSA. Sunosi may face competition from new branded entrants such as pitolisant, a drug that was approved by FDA in August 2019 for the treatment of EDS in adult patients with narcolepsy and in October 2020 for the treatment of cataplexy in adult patients with narcolepsy. Pitolisant became commercially available in the U.S. in the fourth quarter of 2019, and has also been approved and marketed in Europe to treat adult patients with narcolepsy with or without cataplexy. Sunosi may also face competition from other products in development as potential treatments for EDS in patients with narcolepsy or OSA.
- *Defitelio*. While there is currently no direct competition to Defitelio to treat severe VOD, changes in the types of conditioning regimens used as part of HSCT may affect the incidence of VOD diagnosis and demand for Defitelio.
- *Erwinaze*. While there is currently no direct competition to Erwinaze to treat ALL patients with hypersensitivity to *E. coli*-derived asparaginase, we and other companies have developed or are developing new treatments for ALL. For example, we initiated the submission of a BLA to FDA for JZP-458 (recombinant *Erwinia* asparaginase) in December 2020. Some new asparaginase treatments could reduce the rate of hypersensitivity in patients with ALL, and new treatment protocols are being developed and approved for ALL that may not include asparaginase-containing regimens, including some for the treatment of relapsed or refractory ALL patients. We have experienced frequent intermittent shortages of the product that have impacted prescribing habits for Erwinaze, including prescribers' use of alternate methods to address hypersensitivity reactions. As a biologic product, Erwinaze also faces potential competition from biosimilar products. In April 2020, PBL announced that it had entered into an agreement with a new partner to commercialize and distribute Erwinaze after our license and supply agreement expired in December 2020. Subject to successful receipt, release and FDA approval for the batches from PBL, we expect to distribute available Erwinaze supply during the first half of 2021.
- *Vyxeos*. With respect to Vyxeos, there are a number of alternative established therapies in AML. A key consideration in the treatment of AML patients is the patient's suitability for chemotherapy. The AML patient population studied in the Vyxeos Phase 3 clinical trial supporting our NDA included 60-75 year old fit patients, or those deemed able to tolerate intensive induction chemotherapy. Prior to Vyxeos, the most widely recognized option for the treatment of newly-diagnosed t-AML and AML-MRC in fit patients was cytarabine in combination with daunorubicin, known as 7+3, which is still used today in this population, along

with other intensive chemotherapy regimens, particularly in patients under the age of 60. Also, since Vyxeos was approved, several other products have been approved by FDA or are in development as treatment options for newly diagnosed AML patients eligible for intensive chemotherapy, such as targeted agents (e.g. midostaurin, enasidenib and ivosidenib), immunotherapies (e.g., gemtuzumab ozogamicin and chimeric antigen receptor T-cell therapy), and agents disrupting leukemia cell survival (e.g., glasdegib). We are also aware of the increasing use of venetoclax combined with either a hypomethylating agent or low-dose cytarabine, a treatment approved by FDA in newly diagnosed AML patients who are age 75 years or older, or who have comorbidities that preclude use of intensive induction chemotherapy.

- *Zepzelca.* Zepzelca faces competition from topotecan, which is also an approved treatment in second line SCLC in the U.S., as well as other regimens for relapsed SCLC currently recommended in compendia guidelines. There are also a number of products and immunotherapies for the treatment of second line SCLC in various phases of development.

An important part of our corporate strategy is to build a diversified product pipeline, including by acquiring or in-licensing and developing, or partnering to license and develop, additional products and product candidates that we believe are highly differentiated and have significant commercial potential. Our ability to continue to grow our product portfolio requires that we compete successfully with other pharmaceutical companies, many of which may have substantially greater financial sales and marketing resources, to acquire or in-license products and product candidates.

Customers

In the U.S., Xyrem and Xywav are sold to one specialty pharmacy, ESSDS, that ships Xyrem and Xywav directly to patients. Also in the U.S., Sunosi is distributed through a retail channel consisting of numerous distributors who sell Sunosi to retail pharmacies. Defitelio and Erwinaze are sold to hospital customers through subsidiary specialty distributors of McKesson Corporation, or McKesson. Zepzelca and Vyxeos are sold to customers through subsidiary specialty distributors of McKesson, AmerisourceBergen Corporation, or ABC, and Cardinal Health, Inc., or Cardinal. We have distribution services agreements made in the ordinary course of business with McKesson, ABC and Cardinal and a pharmacy services agreement with ESSDS that provides for the distribution of Xyrem and Xywav to patients. For more information regarding our relationship with ESSDS, see "Business—Our Commercialized Products—Xyrem" in this Part I, Item 1. Purchases are made on a purchase order basis.

In certain countries in Europe, Sunosi, Defitelio, Erwinase and Vyxeos are sold pursuant to marketing authorizations. We distribute these products through Durbin PLC, a UK-based wholesaler and distributor, and O&M Movianto Nederland BV, our centralized European logistics services provider, to hospitals and local wholesalers in Europe where we market these products directly and, in other markets in Europe and elsewhere where we do not market these products directly, to local distributors and wholesalers. In countries where there is no marketing authorization, Defitelio, Erwinase and Vyxeos are sold pursuant to named patient programs, temporary use authorizations or similar authorizations.

We directly market Xyrem in Canada for the treatment of cataplexy in patients with narcolepsy. Xyrem is also sold in 20 countries by UCB Pharma Limited, or UCB (which has rights to market Xyrem in 54 countries).

Manufacturing

We have a manufacturing and development facility in Athlone, Ireland where we manufacture Xyrem and Xywav, and a manufacturing plant in Villa Guardia, Italy where we produce the defibrotide drug substance. We currently do not have our own commercial manufacturing or packaging capability for our other products, product candidates or their APIs. As a result, our ability to develop and supply products in a timely and competitive manner depends primarily on third party suppliers being able to meet our ongoing commercial and clinical trial needs for API, other raw materials, packaging materials and finished products. Our manufacturing facility in Athlone, Ireland currently continues to be operational with essential staff onsite and office-based staff working remotely. In March 2020, we temporarily ceased operations at our Villa Guardia, Italy manufacturing facility, which produces defibrotide, to ensure the safety of our employees and communities in northern Italy. We reopened the facility in the second quarter of 2020 taking into account applicable public health authority and local government guidelines as well as employee safety, and the facility has now resumed operations with essential staff onsite and office-based staff working remotely. However, the effects of the COVID-19 pandemic continue to rapidly evolve and even if our employees more broadly return to work in our global offices, the field and our manufacturing facilities, we may nevertheless have to resume a remote work model, whether as a result of spikes or surges in COVID-19 infection or hospitalization rates or otherwise.

Lead Marketed Products

Xyrem. Xyrem is manufactured by us in our Athlone facility and by Patheon Pharmaceuticals Inc., which we refer to together with its affiliates as Patheon, under a Master Manufacturing Services Agreement, or the Patheon Agreement, entered into with Patheon in 2015. We manufacture Xyrem in our Athlone facility for most of our U.S. commercial supply and rely on Patheon to supply Xyrem for other

markets, though we are not required to purchase Xyrem exclusively from Patheon. The current term of the Patheon Agreement will expire in December 2022, subject to further automatic two-yearly extensions if Patheon is then providing manufacturing services for any product, unless either party provides prior notice of termination. In addition, we may terminate the Patheon Agreement for any reason upon 12 months' prior written notice.

Siegfried USA, LLC and its European affiliates, or Siegfried, supply sodium oxybate, the API of Xyrem, to Patheon and our Athlone facility. Although Siegfried has been our only supplier of sodium oxybate since 2012, we have the right to purchase a portion of our worldwide requirements of sodium oxybate from other suppliers. The agreement with Siegfried expires in April 2024, subject to automatic three-year extensions until either party provides advance notice of its intent to terminate the agreement. During the term of the agreement and, under certain circumstances for 18 months after the agreement terminates, Siegfried is not permitted to manufacture sodium oxybate for any other company.

Xyrem is a Schedule III controlled substance in the U.S., and the API of Xyrem is the sodium salt of gamma-hydroxybutyric acid, which is a Schedule I controlled substance in the U.S. As a result, Xyrem is subject to regulation by the U.S. Drug Enforcement Administration, or DEA, under the Controlled Substances Act, or CSA, and its manufacturing and distribution are highly restricted. Quotas from the DEA are required in order to manufacture and package sodium oxybate and Xyrem in the U.S. For information related to DEA quota requirements, see "Business—Government Regulation—Other Post-Approval Pharmaceutical Product Regulation—Controlled Substance Regulations" in this Part I, Item 1.

Xywav. Xywav is manufactured at our Athlone facility. Xywav is a Schedule III controlled substance in the U.S., and the API of Xywav are the calcium, magnesium, potassium and sodium salts of gamma-hydroxybutyric acid, which is a Schedule I controlled substance in the U.S. As a result, Xywav is subject to regulation by the DEA under the CSA, and its manufacturing and distribution are highly restricted. Quotas from the DEA are required in order to manufacture and package calcium, magnesium, potassium and sodium oxybate and Xywav in the U.S. For information related to DEA quota requirements, see "Business—Government Regulation—Other Post-Approval Pharmaceutical Product Regulation—Controlled Substance Regulations" in this Part I, Item 1.

Sunosi. Siegfried AG is our sole supplier of both the API and finished product for Sunosi for both commercial sale as well as development activities. Although Siegfried AG is currently our only manufacturer and supplier of Sunosi, we have the right to purchase a portion of our worldwide requirements of API and drug product from other suppliers. Under our agreement, we provide periodic rolling forecasts to Siegfried AG, and a portion of each rolling forecast is binding. The initial term of the agreement with Siegfried AG will expire in December 2024 and will then be subject to automatic one-year extensions until either party provides advance notice of its intent to terminate the agreement. Solriamfetol, the API of Sunosi, and Sunosi were designated Schedule IV controlled substances by the DEA under the CSA.

Defitelio. We are our own sole supplier of, and we believe that we are currently the sole worldwide producer of, the defibrotide API. We manufacture the defibrotide API from porcine DNA in a single facility located in Villa Guardia, Italy. Patheon currently processes the defibrotide API into its finished vial form under a specific product agreement entered into under a separate agreement with Patheon. Patheon is the sole provider of our commercial and clinical supply of Defitelio; however, we are not required to purchase Defitelio exclusively from Patheon. If Patheon does not or is not able to supply us with Defitelio for any reason, it may take time and resources to implement and execute the necessary technology transfer to another processor, and such delay could negatively impact our anticipated revenues from Defitelio and could potentially cause us to breach contractual obligations with customers or to violate local laws requiring us to deliver the product to those in need.

Erwinaze. PBL is our sole supplier of Erwinaze. Our license and supply agreement with PBL, which includes an exclusive right to market, sell or distribute Erwinaze, expired on December 31, 2020. Under our agreement with PBL, we have the right to sell certain Erwinaze inventory for a post-termination sales period of 12 months. Subject to successful receipt, release and FDA approval for the batches from PBL, we expect to distribute available Erwinaze supply during the first half of 2021. For information related to our expired agreement with PBL, see "Business—Our Commercialized Products—Erwinaze" in this Part I, Item 1.

Vyxeos. Vyxeos is manufactured by Baxter Oncology GmbH, or Baxter, which is a sole source supplier from a single site location, using our CombiPlex technology platform. CombiPlex products represent formulations with increased manufacturing complexities associated with producing drug delivery vehicles encapsulating two or more drugs that are maintained at a fixed ratio and, in the case of Vyxeos, two drugs that are co-encapsulated in a freeze-dried liposomal format. Our manufacturing agreement with Baxter expires in August 2025, subject to automatic three-year renewal terms, unless either party provides advance notice of its intent to terminate the agreement. While other contract manufacturers may be able to produce Vyxeos, the proprietary technology that supports the manufacture of Vyxeos is not easily transferable. The marketing authorization in the EU for Vyxeos also requires us to comply with certain manufacturing-related post-approval commitments.

Zepzelca. Zepzelca is manufactured by Baxter. The initial term of the agreement with Baxter will expire in December 2023 and will then be subject to automatic two-year extensions, unless either party provides advance notice of its intent to terminate the agreement. PharmaMar retains manufacturing rights for the API for U.S. and Canadian commercial supply of Zepzelca. We also entered into a manufacturing agreement for ongoing commercial supply of the drug product Zepzelca with GP Pharm S.A.

Product Candidates

JZP-458 is currently manufactured by Patheon, and the API of JZP-458 is manufactured by AGC Biologics A/S.

JZP-258 for idiopathic hypersomnia is currently manufactured at our Athlone facility, and we expect to manufacture this product commercially at our Athlone facility should this candidate receive regulatory approval.

For discussion of the challenges we face with respect to supply of our products and product candidates, see the risk factor under the heading "*Delays or problems in the supply of our products for sale or for use in clinical trials, loss of our single source suppliers or failure to comply with manufacturing regulations could materially and adversely affect our business, financial condition, results of operations and growth prospects"* in Part I, Item 1A of this Annual Report on Form 10-K.

Patents and Proprietary Rights

We actively seek to patent, or to acquire or obtain licenses to third party patents, to protect our products and product candidates and related inventions and improvements that we consider important to our business. We own a portfolio of U.S and non-U.S. patents and patent applications and have licensed rights to a number of issued patents and patent applications. Our owned and licensed patents and patent applications cover or relate to our products and product candidates, including certain formulations, used to treat particular conditions, distribution methods and methods of administration, drug delivery technologies and delivery profiles and methods of making and use. Patents extend for varying periods according to the date of the patent filing or grant and the legal term of patents in the various countries where patent protection is obtained. The patent laws of non-U.S. countries differ from those in U.S., and the degree of protection afforded by non-U.S. patents may be different from the protection offered by U.S. patents. In addition to patents, our products and product candidates are in some instances protected by various regulatory exclusivities. For a description of those exclusivities and their regulatory background, see "Business—Government Regulation—Marketing Exclusivity—The Hatch-Waxman Act" in this Part I, Item 1.

The patents, patent applications and regulatory exclusivities that relate to our marketed products include:

- *Xyrem.* We currently have six issued, unexpired patents in the U.S. relating to Xyrem. These patents are listed in FDA's publication "Approved Drug Products with Therapeutic Equivalence Evaluations," or the Orange Book. Our patents relate to Xyrem's restricted distribution system and a drug-drug interaction, or DDI, between Xyrem and divalproex sodium. In October 2018, as a result of FDA's grant of pediatric exclusivity, an additional six months was added to the original expiration dates of all of our Orange Book-listed patents that existed at that time. As a result, our Orange Book-listed patents have periods of exclusivity between December 2022 and September 2033. Some of our Xyrem patents have been subject to patent litigation with the companies who filed ANDAs seeking to market a generic version of Xyrem, including challenge through the inter partes review, or IPR, procedures of the Patent Trial and Appeal Board, or PTAB, of the U.S. Patent and Trademark Office, or USPTO. Some IPR petitions were dismissed by the PTAB. However, in July 2018, the United States Court of Appeals for the Federal Circuit upheld on appeal PTAB decisions finding that six patents associated with the Xywav and Xyrem REMS and three claims of a seventh REMS patent were unpatentable. As a result, we will not be able to enforce patents or claims that the PTAB found unpatentable. Although we have settled all patent litigation against the nine companies that filed ANDAs, it is possible that additional companies may challenge our U.S. patents for Xyrem in the future. For a description of our Xyrem settlements, see the risk factor under the heading "*The introduction of new products in the U.S. market that compete with, or otherwise disrupt the market for, our oxybate products and product candidates would adversely affect sales of our oxybate products and product candidates*" in Part I, Item 1A of this Annual Report on Form 10-K.

  A Xyrem formulation patent that had issued in multiple non-U.S. countries expired in December 2019. The European Patent Office has issued a method of administration patent relating to the DDI between Xyrem and divalproex sodium that will expire in February 2034. That patent is licensed to UCB as the marketing authorization holder outside of the U.S. and Canada, and UCB has the right to enforce it. In addition to our issued patents, we have patent applications relating to Xyrem pending in the U.S. and other countries.

- *Xywav.* We have U.S. patents and patent applications that relate to Xywav. Some of these patents expire in early 2033. In addition, we have patent applications that relate to Xywav for use in additional indications that would, if issued, expire between 2040 and 2041.

- *Sunosi*. We acquired worldwide development, manufacturing and commercial rights to solriamfetol from Aerial BioPharma LLC, or Aerial, in 2014, including Aerial's patent rights relating to solriamfetol, other than in certain jurisdictions in Asia where SK Biopharmaceuticals Co., Ltd. retains rights. We have a portfolio of U.S. and non-U.S. patents and patent applications for solriamfetol relating to various compositions, formulations and methods of use. Four of our U.S. patents are method of use patents covering treatment of sleep-related conditions expiring between June 2026 and August 2027 and another U.S. patent is directed to dose escalation regimens expiring in June 2038. Two other U.S. patents cover, respectively, the formulation of solriamfetol and the method of treating select conditions with formulations of solriamfetol (both expiring in September 2037). A request for a patent term extension for one of the above method of use patents has been filed. Requests for Supplementary Protection Certificate in certain European validation countries for a related European patent have been granted in Austria, Ireland, Italy, Netherlands, and Sweden (expiring in June 2031) and remain pending in the others. Sunosi has also been granted orphan drug exclusivity for narcolepsy and new chemical entity exclusivity in the U.S.
- *Defitelio*. The unique process of deriving defibrotide from porcine DNA is extensive and uses both chemical and biological processes that rely on complex characterization methods. We have U.S. and non-U.S. patents and patent applications relating to various compositions, methods of use and methods of characterization, with the issued patents expiring at various times between April 2021 and November 2035. None of these patents are listed in the Orange Book. Defibrotide has been granted orphan drug exclusivity by FDA to treat and prevent VOD until March 2023. Defibrotide has also been granted orphan drug designation by the EC and the Korean Ministry of Food and Drug Safety to treat and prevent VOD, by the Commonwealth of Australia-Department of Health for the treatment of VOD and by the EC for the prevention of acute Graft-versus-Host Disease, or aGvHD. We acquired the rights to defibrotide for the treatment and prevention of VOD in North America, Central America and South America from Sigma-Tau Pharmaceuticals, Inc. in 2014.
- *Erwinaze*. Erwinaze has no patent protection. It had been granted orphan drug exclusivity by FDA for the treatment of ALL in the U.S. until November 2018, and as a biological product approved under a BLA, we believe that it is protected by exclusivity that prevents approval of a biosimilar in the U.S. through late 2023 under the U.S. Biologics Price Competition and Innovation Act, or BPCIA. In the EU, the regulatory data protection that provides an exclusivity period for Erwinase has lapsed.
- *Vyxeos.* We have a portfolio of U.S. and non-U.S. patents and patent applications for Vyxeos and the CombiPlex technology platform relating to various compositions and methods of making and use. These include seven U.S. patents covering Vyxeos compositions and methods of use expiring between April 2025 and September 2034 and two U.S. patents covering CombiPlex (which also cover Vyxeos) expiring in January 2027. These patents are listed in the Orange Book. Vyxeos has been granted orphan drug exclusivity by FDA until August 2024, seven years from its FDA approval, for the treatment of adults with newly-diagnosed t-AML or AML-MRC. In addition, Vyxeos has been granted orphan drug designation by the EC until August 2028, ten years from its EC approval for the treatment of adults with newly-diagnosed t-AML or AML-MRC.
- *Zepzelca*. In December 2019, we entered into an exclusive license agreement with PharmaMar pursuant to which we obtained exclusive U.S. development and commercialization rights to Zepzelca. In October 2020, we entered into the amended license agreement which expanded our exclusive license to include rights to develop and commercialize Zepzelca in Canada. We have a portfolio of in-licensed U.S. and Canadian patents for lurbinectedin relating to compositions, methods of use, and processes. For example, one U.S. patent (expiring in 2024) covers a genus of compounds, including lurbinectedin, and use in treating various cancers. A request for a patent term extension for this U.S. patent has been filed. Zepzelca has also been granted orphan drug exclusivity for the treatment of adults with metastatic SCLC with disease progression on or after platinum-based chemotherapy until 2027 and new chemical entity exclusivity until 2025 in the U.S.

The patents and/or patent applications that relate to our product candidates include:

- *JZP-385*. Through the acquisition of Cavion in 2019, we obtained a portfolio of U.S. and non-U.S. patents and patent applications, including rights relating to compositions and methods of using JZP-385. The portfolio includes a U.S. composition of matter patent relating to JZP-385, which expires in 2027.
- *JZP-150.* Through the asset purchase and exclusive license agreement with SpringWorks in 2020, we obtained a license to a portfolio of U.S. and non-U.S. patents and patent applications, including rights relating to compositions and methods of using JZP-150. The portfolio includes a U.S. composition of matter patent relating to JZP-150, which expires in 2029.
- *JZP-458*. In 2016, we obtained worldwide rights from Pfenex, Inc., including Pfenex's patent rights relating to JZP-458, to develop and commercialize multiple early-stage hematology product candidates, including a license to two U.S. process patents relating to JZP-458, with respective expirations in 2026 and 2038. Pfenex has been acquired by Ligand Pharmaceuticals Incorporated.

In addition, we have rights to a number of trademarks and service marks, and pending trademark and service mark applications, in the U.S. and elsewhere in the world to further protect the proprietary position of our products. For a discussion of the challenges we face in obtaining or maintaining patent and/or trade secret protection, see the risk factors under the heading "Risks Related to Our Intellectual Property" in Part I, Item 1A of this Annual Report on Form 10-K.

Government Regulation

As a global pharmaceutical company, our activities are subject to extensive regulation in the U.S., Europe and other countries where we do business. Regulatory requirements encompass the entire life cycle of pharmaceutical products, from research and development activities to marketing approval, manufacturing, labeling, packaging, adverse event and safety reporting, storage, advertising, promotion, sale, pricing and reimbursement, recordkeeping, distribution, importing and exporting. Regulations differ from country to country and are constantly evolving.

Testing and Approval of Pharmaceutical Products

We are not permitted to market a product in a country until we receive approval from the relevant regulatory authority, such as FDA in the U.S. and the EC or the competent authorities of the EU member states. An application for marketing approval must contain information generated by the applicant, also called a sponsor, demonstrating the quality, safety and efficacy of the product candidate, including data from preclinical and clinical trials, proposed product packaging and labeling and information pertaining to product formulation and the manufacture and analytical testing of the API and the finished product.

In the U.S., FDA reviews and, if warranted, approves applications for marketing approval. The process for obtaining marketing approval in the U.S. for a drug or biologic product candidate generally includes:

- conducting preclinical laboratory and animal testing and submitting the results to FDA in an investigational new drug, or IND, application requesting approval to test the product candidate in human clinical trials;
- conducting adequate and well-controlled human clinical trials to establish the safety and efficacy of the product candidate in the desired indication;
- submitting an NDA, sNDA, or BLA, as appropriate, to FDA seeking approval for a specific indication; and
- completing inspections by FDA of the facilities where the product candidate is manufactured, analyzed and stored to demonstrate compliance with current Good Manufacturing Practices, or cGMP, and any requested FDA audits of the clinical trial sites that generated the data supporting the application.

Human clinical trials conducted before approval of a product generally proceed in three sequential phases, although the phases may overlap. In Phase 1, the initial introduction of the product candidate in humans, the product candidate is typically tested to assess metabolism, pharmacokinetics, pharmacological actions and side effects associated with increasing doses. Phase 2 usually involves clinical trials in a limited patient population to determine the effectiveness of the product candidate for a particular indication or indications, dosage tolerance and optimum dosage and to identify common adverse effects and safety risks. If a product candidate demonstrates evidence of effectiveness and an acceptable safety profile in Phase 2, Phase 3 clinical trials are undertaken to obtain additional information about clinical efficacy and safety in a larger number of patients. Clinical trials must be conducted in accordance with specific protocols, as well as FDA requirements related to conducting the trials and recording and reporting the results, commonly referred to as good clinical practices, to ensure that the resulting data are credible and accurate and that the trial participants are adequately protected. FDA enforces good clinical practices through periodic inspections of trial sponsors, clinical investigators and trial sites.

Once an NDA, sNDA or BLA has been compiled and submitted, FDA performs an initial review before it accepts the application for filing. FDA may refuse to file an application and/or request additional information before acceptance. Once accepted for filing, FDA begins an in-depth review of the application. Under the current goals and policies agreed to by FDA under the Prescription Drug User Fee Act, or PDUFA, for a new molecular entity, FDA has ten months from the filing decision in which to complete its initial review of a standard application and respond to the applicant, and eight months for a priority application. FDA does not always meet its PDUFA goal dates, and in certain circumstances, the PDUFA goal date may be extended.

FDA also has various programs, including Fast Track, Priority Review, Breakthrough Therapy and Accelerated Approval (Subpart H and E), RTOR pilot program, that are intended to expedite the process for reviewing certain applications and/or provide for approval on the basis of surrogate endpoints or restricted distribution. Generally, products may be eligible for one or more of these programs if they are intended for serious or life-threatening diseases or conditions, have potential to address unmet medical needs, or may provide meaningful

benefit over existing treatments. For example, FDA granted Vyxeos Breakthrough Therapy and Fast Track designations and also granted Priority Review with respect to our NDA for Vyxeos for the treatment of t-AML and AML-MRC that was approved in August 2017. In addition, a PRV may be used to obtain priority review by FDA for one of our future regulatory submissions. We used the PRV we acquired in May 2018 to obtain priority review for our JZP-258 for the treatment of idiopathic hypersomnia sNDA, which is under review by FDA. In June 2020, FDA granted Accelerated Approval to Zepzelca for relapsed SCLC. In December 2020, we initiated the submission of a BLA for JZP-458 for ALL under the RTOR pilot program.

During its review of an application, FDA evaluates whether the product demonstrates the required level of safety and efficacy for the indication for which approval is sought and also conducts the inspections and audits described above. FDA may also refer an application to an advisory committee, typically a panel of clinicians, for review, evaluation and a non-binding recommendation as to whether the application should be approved. When FDA completes its evaluation, it issues either an approval letter or a complete response letter. A complete response letter generally outlines what FDA considers to be the deficiencies in the application and may indicate that substantial additional testing or information is required in order for FDA to approve the product. If and when identified deficiencies have been addressed to FDA's satisfaction after a review of the resubmission of the application, or if the decision is reversed through an administrative appeal, FDA will issue an approval letter.

Even if a product is approved, the approval may be subject to limitations based on FDA's interpretation of the data submitted in the application. For example, as a condition of approval, FDA may require the sponsor to agree to certain post-marketing requirements, such as conducting Phase 4, or post-approval, clinical trials to gain additional safety data or to document a clinical benefit in the case of products approved under Accelerated Approval regulations. FDA's approval of the BLA for Erwinaze includes a number of post-marketing commitments and requirements. Several post-marketing commitments and requirements were also mandated by FDA in connection with its approval of Defitelio, including the requirement that we conduct a clinical trial to analyze the safety of defibrotide versus best supportive care in the prevention of VOD in adult and pediatric patients, and its approval of Vyxeos, including the requirement that we conduct a safety study to characterize infusion-related reactions in patients treated with Vyxeos and a clinical trial to determine dosing to minimize toxicity in patients with moderate and severe renal impairment. For example, FDA granted Accelerated Approval to Zepzelca for relapsed SCLC based on data from a Phase 2 trial, which approval is contingent upon verification and description of clinical benefit in a post-marketing clinical trial.

In addition, if FDA determines that a REMS is necessary to ensure that the benefits of the product outweigh the risks, a sponsor may be required to include a proposed REMS (either as part of the application or after approval), which may include a patient package insert or a medication guide to provide information to consumers about the product's risks and benefits; a plan for communication to healthcare providers; or conditions on the product's prescribing or distribution referred to as elements to assure safe use. Xyrem and Xywav are required to have a REMS. For more discussion regarding the Xyrem and Xywav REMS, see the risk factors under the headings "*The distribution and sale of our oxybate products are subject to significant regulatory restrictions, including the requirements of a REMS, and these regulatory requirements subject us to risks and uncertainties, any of which could negatively impact sales of Xyrem and Xywav*" and "Risks Related to Our Intellectual Property" in Part I, Item 1A of this Annual Report on Form 10-K.

The EU and many individual countries have regulatory structures similar to the U.S. for conducting preclinical and clinical testing and applying for marketing approval or authorization, although specifics may vary widely from country to country. Clinical trials in the EU must be conducted in accordance with the requirements of the EU Clinical Trials Directive, which may be replaced with the new EU Clinical Trials Regulation in 2022, and applicable good clinical practice standards. In the EU, there are several procedures for requesting marketing authorization which can be more efficient than applying for authorization on a country-by-country basis. There is a "centralized" procedure allowing submission of a single marketing authorization application to the European Medicines Agency, or EMA. If the EMA issues a positive opinion, the EC will grant a centralized marketing authorization that is valid in all EU member states and three of the four European Free Trade Association countries (Iceland, Liechtenstein and Norway). The centralized procedure is mandatory for certain medicinal products, including orphan medicinal products and biotechnology-derived medicinal products, and optional for others. There is also a "decentralized" procedure allowing companies to file identical applications to several EU member states simultaneously for product candidates that have not yet been authorized in any EU member state and a "mutual recognition" procedure allowing companies that have a product already authorized in one EU member state to apply for that authorization to be recognized by the competent authorities in other EU member states. The UK's withdrawal from the EU on January 31, 2020, commonly referred to as Brexit, has, however, created significant uncertainty concerning the future relationship between the UK and the EU. The impact of Brexit on the on-going validity in the UK of current EU authorizations for medicinal products, whether granted through the centralized procedure, decentralized procedure, or mutual recognition, and on the future process for obtaining marketing authorization for pharmaceutical products manufactured or sold in the UK remains uncertain. In December 2020, the EU and UK reached an agreement in principle on the framework for their future relationship, the EU-UK Trade and Cooperation Agreement, or TCA. The TCA primarily focuses on ensuring free trade between the EU and the UK in relation to goods, including medicinal products. Although the body of the TCA includes general terms which apply to medicinal products,

greater detail on sector-specific issues is provided in an Annex to the TCA. The Annex provides a framework for the recognition of Good Manufacturing Practice, or GMP, inspections and for the exchange and acceptance of official GMP documents. The regime does not, however, extend to procedures such as batch release certification. Among the changes that will now occur are that Great Britain (England, Scotland and Wales) will be treated as a third country. Northern Ireland will, with regard to EU regulations, continue to follow the EU regulatory rules. As part of the TCA, the EU and the UK will recognize GMP inspections carried out by the other party and the acceptance of official GMP documents issued by the other party. The TCA also encourages, although it does not oblige, the parties to consult one another on proposals to introduce significant changes to technical regulations or inspection procedures. Among the areas of absence of mutual recognition are batch testing and batch release. The UK has unilaterally agreed to accept EU batch testing and batch release for a period of at least 2 years until January 1, 2023. However, the EU continues to apply EU laws that require batch testing and batch release to take place in the EU territory. This means that medicinal products that are tested and released in the UK must be retested and re-released when entering the EU market for commercial use. As regards marketing authorizations, Great Britain will have a separate regulatory submission process, approval process and a separate national marketing authorization. Northern Ireland will, however, continue to be covered by the marketing authorizations granted by the EC.

The maximum timeframe for the evaluation of an application in the EU under the centralized procedure is 210 days, subject to certain exceptions and clock stops. An initial marketing authorization granted in the EU is valid for five years, with renewal subject to re-evaluation of the risk-benefit profile of the product. Once renewed, the authorization is usually valid for an unlimited period unless the national competent authority or the EC decides on justified grounds to proceed with one additional five-year renewal.

In the EU, if an applicant can demonstrate that comprehensive data on the efficacy and safety of the product under normal conditions of use cannot be provided due to certain specified objective and verifiable reasons, products may be granted marketing authorization "under exceptional circumstances." A marketing authorization granted under exceptional circumstances is valid for five years, subject to an annual reassessment of conditions imposed by the EC. The marketing authorization in the EU for Defitelio was granted under exceptional circumstances because it was not possible to obtain complete information about the product due to the rarity of the disease and because ethical considerations prevented conducting a study directly comparing Defitelio with best supportive care or a placebo. As a result, the marketing authorization requires us to comply with a number of post-marketing obligations, including obligations relating to the manufacture of the drug substance and finished product, the submission of data concerning patients treated with the product collected through a third-party patient registry and the establishment of a multi-center, multinational and prospective observational patient registry to investigate the long-term safety, health outcomes and patterns of utilization of Defitelio during normal use. We are in the process of conducting the post-authorization study in the EU to provide further data on long-term safety, health outcomes and patterns of utilization of Defitelio in normal use.

Similar to the use of REMS in the U.S. to ensure that the benefits of a product outweigh its risks, in the EU and other countries we are required and may, in the future in relation to new products, be required to agree to post-marketing obligations in the marketing authorization for our products, to include a patient package insert or a medication guide to provide information to consumers about the product's risks and benefits, to implement a plan for communication to healthcare providers, and to impose restrictions on the product's distribution. For example, the marketing authorization in the EU for Vyxeos requires us to comply with certain manufacturing-related post-approval commitments.

After approval, certain changes to the approved product, such as adding new indications, making certain manufacturing changes, modifying a REMS, or making certain additional labeling claims, are subject to further regulatory review and approval. Obtaining approval for a new indication generally requires that additional clinical studies be conducted to demonstrate that the product is safe and effective for the new intended use. Such regulatory reviews can result in denial or modification of the planned changes, or requirements to conduct additional tests or evaluations that can substantially delay or increase the cost of the planned changes.

Manufacture of Pharmaceutical Products

The manufacturing process for pharmaceutical products is highly regulated, and regulators may shut down manufacturing facilities that they believe do not comply with regulations. We and the third party suppliers of our products are subject to cGMP, which are extensive regulations governing manufacturing processes, stability testing, recordkeeping and quality standards as defined by FDA, the EC, the EMA, competent authorities of EU member states and other regulatory authorities. FDA also periodically inspects manufacturing facilities and the sponsor's and manufacturer's records related to manufacturing, and assesses compliance with cGMP. Following such inspections, FDA may issue notices on Form FDA 483 and warning letters. For example, FDA issued a warning letter to PBL, the Erwinaze manufacturer, in January 2017 indicating that it was not satisfied with PBL's responses to a Form 483 issued to PBL and citing significant violations of cGMP for finished pharmaceuticals and significant deviations from cGMP for APIs. As recently as August 2018, FDA conducted an inspection of the PBL manufacturing facility and issued an FDA Form 483 to PBL citing observations related to items

referenced in the existing warning letter as well as other manufacturing practices, including data and records management. In addition to Form FDA 483 notices and warning letters, failure to comply with the statutory and regulatory requirements may result in suspension of manufacturing, product seizure, withdrawal of the product from the market, administrative, civil and criminal penalties, among other enforcement remedies both in the U.S. and in non-U.S. countries.

In the EU, a manufacturing authorization is required to manufacture medicinal products, and the manufacturing authorization holder must comply with various requirements set out in applicable EU laws, regulations and guidance. These requirements include compliance with EU cGMP standards when manufacturing products and their APIs, including APIs manufactured outside of the EU with the intention of importing them into the EU. In addition to inspection reports, manufacturers and marketing authorization holders may be subject to civil, criminal or administrative sanctions, including suspension of manufacturing authorization, in cases of non-compliance with the EU or EU member states' requirements applicable to manufacturing.

Sales and Marketing of Pharmaceutical Products

Advertising and Promotional Activities

FDA regulates advertising and promotional activities for products in the U.S., requiring advertising, promotional materials and labeling to be truthful and not misleading, and products to be marketed only for their approved indications and in accordance with the provisions of the approved label. FDA actively investigates allegations of off-label promotion in order to enforce regulations prohibiting these types of activities. FDA routinely issues informal and more formal communications such as untitled letters or warning letters interpreting its authority over these matters. While such communications may not be considered final agency decisions, many companies may decide not to contest the agency's interpretations so as to avoid disputes with FDA, even if they believe the claims they were making to be truthful, not misleading and otherwise lawful.

In the EU, the advertising and promotion of our products are subject to laws governing promotion of medicinal products, interactions with physicians, misleading and comparative advertising and unfair commercial practices. For example, applicable laws require that promotional materials and advertising in relation to medicinal products comply with the product's Summary of Product Characteristics, or SmPC, as approved by the competent authorities in connection with a marketing authorization approval. The SmPC is the document that provides information to physicians concerning the safe and effective use of the product. Promotional activity that does not comply with the SmPC is considered off-label and is prohibited in the EU. Other applicable laws at the EU level and in the individual EU member states also apply to the advertising and promotion of medicinal products, including laws that prohibit the direct-to-consumer advertising of prescription-only medicinal products and further limit or restrict the advertising and promotion of our products to the general public and to health care professionals. Violations of the rules governing the promotion of medicinal products in the EU could be penalized by administrative measures, fines and imprisonment.

Fraud and Abuse

We are also subject to numerous fraud and abuse laws and regulations globally. In the U.S., there are a variety of federal and state laws restricting certain marketing practices in the pharmaceutical industry pertaining to healthcare fraud and abuse, including anti-kickback laws and false claims laws. Our sales, marketing, patient support and medical activities may be subject to scrutiny under these laws. The U.S. federal healthcare program Anti-Kickback Statute prohibits, among other things, knowingly and willfully offering, paying, soliciting or receiving anything of value to induce (or in return for) the referral of business, including the purchase, recommendation or prescription of a particular drug reimbursable under Medicare, Medicaid or other federally financed healthcare programs. The statute has been interpreted to apply to arrangements between pharmaceutical companies on one hand and patients, prescribers, purchasers and formulary managers on the other. Although there are a number of statutory exemptions and regulatory safe harbors protecting certain common manufacturer business arrangements and activities from prosecution and administrative sanction, the exemptions and safe harbors are drawn narrowly and are subject to regulatory revision or changes in interpretation by the U.S Department of Justice, or DOJ, and the Office of Inspector General of the U.S. Department of Health and Human Services, or OIG. Practices or arrangements that involve remuneration may be subject to scrutiny if they do not qualify for an exemption or safe harbor. For example, in November 2020, the OIG issued a Special Fraud Alert to highlight certain inherent risks of remuneration related to speaker programs sponsored by drug and device companies, which do not fall under either safe harbor or statutory exception protection. The Special Fraud Alert sent a clear signal that speaker programs will be subject to potentially heightened enforcement scrutiny, in particular for those programs with certain characteristics identified as risk factors by OIG, including meals exceeding modest value or where alcohol is made available; lack of substantive or new content presented; programs held at venues not conducive to the exchange of educational information; repeat attendees or attendees without a legitimate business interest; sales or marketing influence on speaker selection; and excessive speaker compensation. Violations of the federal Anti-Kickback Statute may be established without providing specific intent to violate the statute, and may be punishable by civil, criminal, and administrative fines and penalties, damages, imprisonment, and/or exclusion from participation in federal healthcare programs.

The federal civil False Claims Act prohibits, among other things, any person from knowingly presenting, or causing to be presented, a false or fraudulent claim for payment of federal funds, or knowingly making, or causing to be made, a false statement to get a false claim paid. A claim resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim. The False Claims Act also permits a private individual acting as a "whistleblower" to bring actions on behalf of themselves and the federal government alleging violations of the statute and to share in any monetary recovery. Violations of the False Claims Act may result in significant financial penalties (including mandatory penalties on a per claim or statement basis), treble damages and exclusion from participation in federal health care programs.

Pharmaceutical companies are subject to other federal false claim and statements laws, some of which extend to non-government health benefit programs. For example, the healthcare fraud provisions under the Health Insurance Portability and Accountability Act of 1996 and its implementing regulations, or HIPAA, impose criminal liability for, among other things, knowingly and willfully executing, or attempting to execute, a scheme to defraud any health care benefit program, including private third party payors, or falsifying or covering up a material fact or making any materially false or fraudulent statement in connection with the delivery of or payment for health care benefits, items or services. Violations of HIPAA fraud provisions may result in criminal, civil and administrative penalties, fines and damages, including exclusion from participation in federal healthcare programs.

The majority of individual states also have statutes or regulations similar to the federal anti-kickback law and the False Claims Act, which apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payor. Other states restrict whether and when pharmaceutical companies may provide meals to health care professionals or engage in other marketing-related activities, and certain states and cities require identification or licensing of sales representatives.

Other Post-Approval Pharmaceutical Product Regulation

Safety Reporting/Pharmacovigilance

FDA, the EMA and other governmental authorities track information on side effects and adverse events reported during clinical studies and after marketing approval. We are required to file periodic safety update reports with the authorities concerning adverse events. If, upon review, an authority determines that any events and/or reports indicate a trend or signal, they can require a change in a product label, restrict sales and marketing, require post-approval safety studies, require a labor intensive collection of data regarding the risks and benefits of marketed products and ongoing assessments of those risks and benefits and/or require or conduct other actions, potentially including withdrawal or suspension of the product from the market. For example, if the EMA has concerns that the risk-benefit profile of a product has changed, it can, following an investigation procedure, adopt an opinion advising that the existing marketing authorization for the product be varied or suspended and requiring the marketing authorization holder to conduct post-authorization safety studies. The opinion is then submitted for approval by the EC. Also, from time to time, FDA issues drug safety communications on its adverse event reporting system based on its review of reported adverse events.

FDA and the competent authorities of the EU member states on behalf of the EMA also periodically inspect our records related to safety reporting. Following such inspections, FDA may issue notices on FDA Form 483 and warning letters that could cause us to modify certain activities. An FDA Form 483 notice, if issued, can list conditions FDA investigators believe may have violated relevant FDA regulations or guidance. Failure to adequately and promptly correct the observation(s) can result in a warning letter or other regulatory enforcement action. Similarly, the EMA's Pharmacovigilance Risk Assessment Committee may propose to the Committee for Medicinal Products for Human Use that the marketing authorization holder be required to take specific steps. Non-compliance can lead to the variation, suspension or withdrawal of marketing authorization or imposition of financial penalties or other enforcement measures.

Sunshine Act and Transparency Laws

The Physician Payment Sunshine Act requires tracking of payments and transfers of value to physicians and teaching hospitals and ownership interests held by physicians and their families, and reporting to the federal government and public disclosure of these data. Beginning in 2022, reporting will also be required of information regarding payments and transfers of value provided to physician assistants, nurse practitioners, clinical nurse specialists, certified nurse anesthetists, and certified nurse-midwives. A number of states now require pharmaceutical companies to report expenses relating to the marketing and promotion of pharmaceutical products and to report gifts and payments to healthcare providers in the states. Government agencies and private entities may inquire about our marketing practices or pursue other enforcement activities based on the disclosures in those public reports.

Outside the U.S., interactions between pharmaceutical companies and physicians are also governed by strict laws, regulations, industry self-regulation codes of conduct and physicians' codes of professional conduct. The provision of benefits or advantages to physicians to induce or encourage the prescription, recommendation, endorsement, purchase, supply, order or use of medicinal products,

which is prohibited in the EU, is governed by the national anti-bribery laws of the EU member states, as described below in "Business—Government Regulation—Anti-Corruption Legislation" in this Part I, Item 1. Violation of these laws could result in substantial fines and imprisonment. Certain EU member states, or industry codes of conduct, require that payments made to physicians be publicly disclosed. Moreover, agreements with physicians must often be the subject of prior notification and approval by the physician's employer, his/her competent professional organization, and/or the competent authorities of the individual EU member states. Failure to comply with these requirements could result in reputational risk, public reprimands, administrative penalties, fines or imprisonment.

Controlled Substance Regulations

A drug product approved by FDA may be subject to scheduling as a controlled substance under the CSA depending on the drug's potential for abuse. Controlled substances that are pharmaceutical products are subject to a high degree of regulation under the CSA, which establishes, among other things, certain registration, manufacturing quotas, security, recordkeeping, reporting, import, export and other requirements administered by the DEA. The DEA classifies controlled substances into five schedules. Schedule I substances by definition have a high potential for abuse, have no currently "accepted medical use" in the U.S., lack accepted safety for use under medical supervision, and may not be prescribed, marketed or sold in the U.S. Pharmaceutical products approved for use in the U.S. may be listed as Schedule II, III, IV or V, with Schedule II substances considered to present the highest potential for abuse or dependence and Schedule V substances the lowest relative risk of abuse. The API of Xyrem and Xywav, oxybate salts, are regulated by the DEA as Schedule I controlled substances, and Xyrem and Xywav are regulated as Schedule III controlled substances. The API of Sunosi, solriamfetol, and Sunosi are regulated as Schedule IV controlled substances. Individual countries also impose similar requirements for controlled substances.

The DEA limits the quantity of certain Schedule I controlled substances that may be manufactured and procured in the U.S. in any given calendar year through a quota system and, as a result, quotas from the DEA are required in order to manufacture and package sodium oxybate and Xyrem in the U.S. Accordingly, we require DEA quotas for Siegfried, our U.S.-based sodium oxybate supplier, to procure sodium oxybate and for Patheon, our U.S.-based Xyrem supplier, to obtain the sodium oxybate from Siegfried in order to manufacture and supply us with Xyrem. Xyrem and Xywav manufactured at our plant in Ireland enters the U.S. as a Schedule III drug and thus does not require a manufacturing quota.

As Schedule III drugs, Xyrem and Xywav are also subject to DEA import volume limits and state regulations relating to manufacturing, storage, distribution and physician prescription procedures, including limitations on prescription refills. In addition, the third parties who perform our clinical and commercial manufacturing, distribution, dispensing and clinical studies for Xyrem and Xywav are required to maintain necessary DEA registrations and state licenses. The DEA periodically inspects facilities for compliance with its rules and regulations.

Other Regulations

There are many other requirements and restrictions in the U.S. and elsewhere imposed on pharmaceutical companies and their activities, including those related to the posting of information relating to clinical studies and their outcomes, the export and importation of products, required authorizations for distributors, the identification or licensing of sales representatives, restrictions on the ability of manufacturers to offer co-pay support to patients for certain prescription drugs, implementation of required compliance programs or marketing codes of conduct, protection of the environment, taxation and work safety. Non-compliance with such requirements may result in civil, criminal or administrative sanctions.

Anti-Corruption Legislation

Our business activities outside of the U.S. are subject to the U.S. Foreign Corrupt Practices Act, or FCPA, and similar anti-bribery or anti-corruption laws, regulations, industry self-regulation codes of conduct and physicians' codes of professional conduct or rules of other countries in which we operate, including the UK Bribery Act of 2010, or the UK Bribery Act. The FCPA and similar anti-corruption laws in other countries generally prohibit the offering, promising, giving, or authorizing others to give anything of value, either directly or indirectly, to U.S. or non-U.S. government officials in order to improperly influence any act or decision, secure an improper advantage, or obtain or retain business. The FCPA also requires public companies to make and keep books and records that accurately and fairly reflect the transactions of the company and to devise and maintain an adequate system of internal accounting controls. The UK Bribery Act prohibits giving, offering, or promising bribes to any person, including UK and non-UK government officials and private persons, as well as requesting, agreeing to receive, or accepting bribes from any person. In addition, under the UK Bribery Act, companies that carry on a business or part of a business in the UK may be held liable for bribes given, offered or promised to any person, including UK and non-UK government officials and private persons in any country, by employees and persons associated with the company in order to obtain or

retain business or a business advantage for the company. Liability is strict, with no element of a corrupt state of mind, but a defense of having in place adequate procedures designed to prevent bribery is available. As described above, our business is heavily regulated and therefore involves significant interaction with government officials in many countries. Additionally, in certain countries, the health care providers who prescribe pharmaceuticals are employed by their government, and the purchasers of pharmaceuticals are government entities; therefore, our dealings with these prescribers and purchasers may be subject to the FCPA, the UK Bribery Act and similar laws. Recently the Securities and Exchange Commission, or SEC, and the DOJ have increased their FCPA enforcement activities with respect to pharmaceutical companies. In addition, under the Dodd-Frank Wall Street Reform and Consumer Protection Act, private individuals who report to the SEC original information that leads to successful enforcement actions may be eligible for a monetary award. We engage in ongoing efforts designed to ensure our compliance with these laws, including due diligence, training, policies, procedures, and internal controls. However, there is no certainty that all employees and third party business partners (including our distributors, wholesalers, agents, contractors, and other partners) will comply with anti-bribery laws. In particular, we do not control the actions of our suppliers and other third party agents, although we may be liable for their actions. Violation of these laws may result in civil or criminal sanctions, which could include monetary fines, criminal penalties, and disgorgement of past profits.

Data Protection and Privacy

We are subject to data protection and privacy laws and regulations globally, which restrict the processing of personal data. The legislative and regulatory landscape for privacy and data security continues to evolve with an increased attention in countries globally that could potentially affect our business. In particular, we are subject to the EU General Data Protection Regulation, which became effective on May 25, 2018 and imposes penalties up to 4% of annual global turnover and the California Consumer Privacy Act of 2018, which became effective on January 1, 2020. These laws and regulations applicable to our business, increase potential enforcement and litigation activity. In order to manage these evolving risks, we have adopted a global privacy program that governs the processing of personal data across our business.

Marketing Exclusivity

The Hatch-Waxman Act

The marketing approval process described above for the U.S. is premised on the applicant being the owner of, or having obtained a right of reference to, all of the data required to prove the safety and effectiveness of a drug product. This type of marketing application, sometimes referred to as a "full" or "stand-alone" NDA, is governed by Section 505(b)(1) of the United States Federal Food, Drug, and Cosmetic Act, or FDCA. A Section 505(b)(1) NDA contains full reports of investigations of safety and effectiveness, which includes the results of preclinical and clinical trials, together with detailed information on the manufacture and composition of the product, in addition to other information. As an alternative, the Drug Price Competition and Patent Term Restoration Act of 1984, or the Hatch-Waxman Act, provides two abbreviated approval pathways for certain drug products.

The first path, under Section 505(b)(2) of the FDCA, usually is used for the approval of a product that is similar, but not identical, to a previously-approved brand-name product, referred to as the reference listed drug, or RLD. Under this path, the applicant is permitted to rely to some degree on FDA's finding that the RLD is safe and effective and must submit its own product-specific data on safety and effectiveness only to the extent necessary to bridge the differences between the products. The second abbreviated path established under the Hatch-Waxman Act is for the approval of generic drugs. Section 505(j) of the FDCA permits the submission of an ANDA for a generic version of an approved, brand-name drug. Generally, an ANDA must contain data and information showing that the proposed generic product and the RLD (i) have the same active ingredient, in the same strength and dosage form, to be delivered via the same route of administration, (ii) are intended for the same uses, and (iii) are bioequivalent. This data and information are provided instead of data and information independently demonstrating the proposed generic product's safety and effectiveness.

The Hatch-Waxman Act requires an ANDA or a Section 505(b)(2) NDA applicant to certify that there are no patents listed for that product in the Orange Book, or that for each Orange Book-listed patent either the listed patent has expired, the listed patent will expire on a particular date and approval is sought after patent expiration, or the listed patent is invalid or will not be infringed by the manufacture, use or sale of the new product. A certification that approval is sought after patent expiration is called a "Paragraph III Certification." A certification that the new product will not infringe the RLD's Orange Book-listed patents, or that such patents are invalid, is called a "Paragraph IV Certification." If a relevant patent covers an approved method of use, an ANDA or Section 505(b)(2) NDA applicant can also file a statement, called, in the case of an ANDA, a "section viii statement," that the application does not seek approval of the method of use covered by the listed patent. With such a statement, the applicant must "carve out" the protected method of use (typically an indication and related material) from the proposed product's labeling. If the applicant makes a Paragraph III Certification, the ANDA or the Section 505(b)(2) NDA will not be approved until the listed patents claiming the RLD have expired.

If the applicant has provided a Paragraph IV Certification to FDA, the applicant must also send a notice of that certification to the NDA holder and the relevant patent holders once FDA accepts the ANDA or the Section 505(b)(2) NDA for filing. The NDA and patent holders then have 45 days to initiate a patent infringement lawsuit. Filing the lawsuit triggers an automatic stay on FDA's approval of the ANDA or the Section 505(b)(2) NDA until the earliest of 30 months after the NDA holder's receipt of the notice of Paragraph IV Certification, expiration of the patent, certain settlements of the lawsuit, or a decision in the infringement case that is favorable to the applicant. FDA may issue tentative approval of an application if the application meets all conditions for approval but cannot receive effective approval because the 30-month stay or another period of regulatory exclusivity has not expired. If an ANDA or Section 505(b)(2) NDA is approved before conclusion of any relevant patent litigation, the applicant can choose to launch the product, but does so "at risk" of being liable for damages, and potentially treble damages, if the RLD sponsor or patent holder ultimately prevails in patent litigation.

Under the Hatch-Waxman Act, newly approved drugs and indications may benefit from statutory periods of non-patent marketing exclusivity that can potentially delay review or approval of an ANDA or Section 505(b)(2) application. For example, the Hatch-Waxman Act provides five-year marketing exclusivity to the first applicant to gain approval of an NDA for a new chemical entity, meaning a drug containing an active moiety that FDA has not previously approved. During this period, FDA cannot accept for review an ANDA or a Section 505(b)(2) NDA for a product containing the same moiety, except that an application containing a Paragraph IV Certification may be submitted after four years, which may trigger the litigation and stay described above. The Hatch-Waxman Act also provides three years of marketing exclusivity with the approval of an NDA, including a Section 505(b)(2) NDA, for a product containing a previously-approved moiety but that incorporates a change (such as a new indication, dosage form or strength) from an approved product with the same moiety, if the change required clinical data from new investigations that were conducted or sponsored by the applicant. This three-year exclusivity does not preclude submission of the ANDA or Section 505(b)(2) NDA for such a product, but prevents FDA from giving final approval to such product.

The Hatch-Waxman Act also permits a patent term extension of up to five years (but not beyond 14 years from the date of approval) for an NDA, including a Section 505(b)(2) NDA, that is approved for a product that contains an active ingredient that has not previously been approved. The extension, which compensates for patent term lost during product development and FDA regulatory review process, is generally equal to the sum of one-half the time between the effective date of an IND application and the submission date of an NDA, and all of the time between the submission date of an NDA and the approval of that application. It is available for only one patent for a given product, and it must be a patent that claims the product or a method of using or manufacturing the product. The USPTO, in consultation with FDA, reviews and approves applications for patent term extension.

In the EU, innovative medicinal products that are subject to marketing authorization on the basis of a full dossier qualify for eight years' data exclusivity upon marketing authorization and an additional two years' market exclusivity. Data exclusivity prevents regulatory authorities in the EU from referencing the innovator's data to assess a generic application or biosimilar application for eight years from the date of authorization of the innovative product, after which a generic or biosimilar marketing authorization application can be submitted, and the innovator's data may be referenced. However, the generic product or biosimilar products cannot be marketed in the EU for a further two years thereafter. The overall ten-year period may be extended for a further year to a maximum of 11 years if, during the first eight years of those ten years, the marketing authorization holder obtains an authorization for one or more new therapeutic indications which, during the scientific evaluation prior to their authorization, are held to bring a significant clinical benefit in comparison with existing therapies.

Orphan Drug and Other Exclusivities

Some jurisdictions, including the U.S., may designate drugs or biologics for relatively small patient populations as orphan drugs. FDA grants orphan drug designation to drugs or biologics intended to treat a rare disease or condition, which is one that affects fewer than 200,000 individuals in the U.S., or more than 200,000 individuals, but for which there is no reasonable expectation that the cost of developing the product and making it available in the U.S. for the disease or condition will be recovered from U.S. sales of the product. Orphan drug designation does not shorten the duration of the regulatory review process or lower the approval standards, but can provide important benefits, including consultation with FDA. If a product is approved for its orphan designated use, it may be entitled to orphan drug exclusivity, which blocks FDA from approving for seven years any other application for a product that is the same drug for the same indication. If there is a previously-approved product that is the same drug for the same indication, orphan drug designation requires the sponsor to provide a plausible hypothesis of clinical superiority over the approved product, whereas orphan drug exclusivity requires the sponsor to actually demonstrate clinical superiority. Clinical superiority can be established by way of greater efficacy, greater safety, or making a major contribution to patient care. Additionally, a later product can be approved if the sponsor holding orphan drug exclusivity consents, or cannot adequately supply the market. Orphan drug exclusivity does not prevent approval of another sponsor's application for different indications or uses of the same drug, or for different drugs for the same indication. Defibrotide has been granted orphan drug exclusivity by FDA to treat and prevent VOD until March 2023. Vyxeos has been granted orphan drug exclusivity by FDA for the treatment of AML until August 2024.

Biologic products approved under a BLA are subject to the BPCIA, which authorizes an abbreviated approval pathway for a biological product that is "biosimilar" to an already approved biologic, or reference product. The BPCIA provides periods of exclusivity that protect a reference product from competition by biosimilars. FDA may not accept a biosimilar application for review until four years after the date of first licensure of the reference product, and the biosimilar cannot be licensed until 12 years after the reference product was first licensed. We believe that Erwinaze, which was approved under a BLA in November 2011, is subject to an exclusivity period that will prevent approval of a biosimilar in the U.S. into November 2023.

Under certain circumstances, the exclusivity periods applicable to drugs and biologics and the patent-related protections applicable to drugs may be eligible for a six-month extension if the sponsor submits pediatric data that fairly respond to a written request from FDA for such data. This exclusivity may be granted even if the data does not support a pediatric indication. We consider seeking pediatric exclusivity for our products whenever appropriate. For example, in response to a written request from FDA, we conducted a Phase 3 clinical trial to assess the safety and efficacy of Xyrem in children and adolescents aged seven to 17 who have narcolepsy with cataplexy, and submitted study results in a supplement to the Xyrem NDA, seeking approval for this indication. In October 2018, FDA approved the sNDA and notified us that we had been granted pediatric exclusivity, extending by six months the preclusive effect of our Orange Book-listed patents for Xyrem, as well as the three-year regulatory exclusivity period granted to the Xyrem pediatric indication because of the clinical studies that were necessary for approval of the sNDA.

In the EU, orphan drug designation may be granted to products that can be used to treat life-threatening diseases or chronically debilitating conditions with an incidence of no more than five in 10,000 people or that, for economic reasons, would be unlikely to be developed without incentives. Orphan designated medicinal products are entitled to a range of benefits during the development and regulatory review process and ten years of market exclusivity in all EU member states upon approval. As in the U.S., a similar medicinal product with the same orphan indication may be approved, notwithstanding orphan product exclusivity, if the exclusivity holder gives consent or if the manufacturer of the original orphan medicinal product is unable to supply sufficient quantities. Marketing authorization may also be granted to a similar medicinal product with the same orphan indication if the similar product is deemed safer, more effective or otherwise clinically superior to the original orphan medicinal product. The period of market exclusivity granted in relation to the original orphan medicinal product may, in addition, be reduced to six years if it can be demonstrated on the basis of available evidence that the original orphan medicinal product is sufficiently profitable not to justify maintenance of market exclusivity. Defibrotide has been granted orphan drug designation by the EC and the Korean Ministry of Food and Drug Safety to treat and prevent VOD, by the Commonwealth of Australia-Department of Health for the treatment of VOD and by the EC for the prevention of aGvHD. Vyxeos has been granted orphan drug designation by the EC until August 2028.

Pharmaceutical Pricing, Reimbursement by Government and Private Payors and Patient Access

Pricing and Reimbursement

Successful commercialization of our products depends in significant part on adequate financial coverage and reimbursement from third party payors, including governmental payors (such as the Medicaid and Medicare programs in the U.S.), managed care organizations and private health insurers. Third party payors decide which drugs will be reimbursed and establish reimbursement and co-pay levels and conditions for reimbursement. Third party payors are increasingly challenging the prices charged for medical products and services by examining their cost effectiveness, as demonstrated in pharmacoeconomic and/or clinical studies, in addition to their safety and efficacy. In some cases, for example, third party payors try to encourage the use of less expensive products, when available, through their prescription benefits coverage and reimbursement, co-pay and prior authorization policies. The process for determining whether a payor will provide coverage for a product may be separate from the process for setting the price or reimbursement rate that the payor will pay for the product once coverage is approved. Third party payors may require prior approval before covering a specific product, or may require patients and health care providers to try other covered products first. Third party payors may also limit coverage to specific products on an approved list, or formulary, which might not include all of the approved products for a particular indication. For certain categories of products, third party payors, principally through contracted pharmacy benefit managers, or PBMs, negotiate rebates with drug manufacturers for inclusion of products on their formularies in specific positions or coverage criteria. Beginning in the third quarter of 2019, we have been entering into agreements with certain PBMs to provide rebates for our products where coverage was provided and products were listed in certain formulary positions, among other conditions. We expect to enter into additional agreements in 2021.

Medicaid is a joint federal and state program that is administered by the states for low-income and disabled beneficiaries. Medicare is a federal program that is administered by the federal government covering individuals age 65 and over as well as those with certain disabilities. Medicare Part B pays physicians who administer our products. Under the Medicaid Drug Rebate program, as a condition of having federal funds made available to the states for our drugs under Medicare Part B, we are required to pay a rebate to each state Medicaid program for our covered outpatient drugs that are dispensed to Medicaid beneficiaries and paid for by a state Medicaid program. Medicaid rebates are based on pricing data we report on a monthly and quarterly basis to the U.S. Centers for Medicare & Medicaid

Services, or CMS, the federal agency that administers the Medicaid Drug Rebate program and Medicare. These data include the average manufacturer price and, in the case of innovator products, the best price for each drug which, in general, represents the lowest price available from the manufacturer to any entity in the U.S. in any pricing structure, calculated to include all applicable sales and associated rebates, discounts and other price concessions. If we become aware that our reporting for a prior quarter was incorrect, or has changed as a result of recalculation of the pricing data, we are obligated to resubmit the corrected data for up to three years after those data originally were due. We are required to provide average sales price, or ASP, information for certain of our products to CMS on a quarterly basis. The ASP is calculated based on a statutorily defined formula as well as regulations and interpretations of the statute by CMS. This information is used to compute Medicare payment rates, with rates for Medicare Part B drugs outside the hospital outpatient setting and in the hospital outpatient setting consisting of ASP plus a specified percentage.

Federal law requires that any company that participates in the Medicaid Drug Rebate program also participate in the Public Health Service's 340B program, or the 340B program, in order for federal funds to be available for the manufacturer's drugs under Medicaid and Medicare Part B. The 340B program, which is administered by the Health Resources and Services Administration, or HRSA, requires participating manufacturers to agree to charge statutorily defined covered entities no more than the 340B "ceiling price" for the manufacturer's covered drugs used in an outpatient setting. These 340B covered entities include a variety of community health clinics and other entities that receive health services grants from the Public Health Service, as well as hospitals that serve a disproportionate share of low-income patients. The 340B ceiling price is calculated using a statutory formula, which is based on the average manufacturer price and rebate amount for the covered outpatient drug as calculated under the Medicaid Drug Rebate program, and in general, products subject to Medicaid price reporting and rebate liability are also subject to the 340B ceiling price calculation and discount requirement. A regulation regarding the calculation of the 340B ceiling price and the imposition of civil monetary penalties on manufacturers that knowingly and intentionally overcharge covered entities became effective on January 1, 2019. We also are required to report our 340B ceiling prices to HRSA on a quarterly basis and HRSA then publishes them to 340B covered entities. In addition, legislation may be introduced that, if passed, would further expand the 340B program to additional covered entities or would require participating manufacturers to agree to provide 340B discounted pricing on drugs used in an inpatient setting.

In order to be eligible to have our products paid for with federal funds under the Medicaid and Medicare Part B programs and purchased by certain federal agencies and grantees, we also participate in the U.S. Department of Veterans Affairs, or VA, Federal Supply Schedule, or FSS, pricing program. Under this program, we are obligated to make our products available for procurement on an FSS contract under which we must comply with standard government terms and conditions and charge a price to certain federal agencies that is no higher than the statutory Federal Ceiling Price, or FCP. The FCP is based on the non-federal average manufacturer price, or Non-FAMP, which we calculate and report to the VA on a quarterly and annual basis. We also participate in the Tricare Retail Pharmacy program, under which we pay quarterly rebates on utilization of innovator products that are dispensed through the Tricare Retail Pharmacy network to Tricare beneficiaries. The rebates are calculated as the difference between the annual Non-FAMP and FCP. Pricing and rebate calculations vary across products and programs, are complex, and are often subject to interpretation by us, governmental or regulatory agencies and the courts, which can change and evolve over time.

In addition, in the U.S., drug pricing by pharmaceutical companies is currently, and is expected to continue to be, under close scrutiny, including with respect to companies that have increased the price of products after acquiring those products from other companies. There are numerous ongoing efforts at the federal and state level seeking to indirectly or directly regulate drug prices to reduce overall healthcare costs using tools such as price ceilings, value-based pricing and increased transparency and disclosure obligations. Several states have passed or are considering legislation that requires or purports to require companies to report pricing information, including proprietary pricing information. For example, in 2017, California adopted a prescription drug price transparency state bill requiring advance notice of and an explanation for price increases of certain drugs that exceed a specified threshold. Similar bills have been previously introduced at the federal level and additional legislation could be introduced this year.

Similar to what is occurring in the U.S., political, economic and regulatory developments outside of the U.S. are also subjecting the healthcare industry to fundamental changes and challenges. Pressure by governments and other stakeholders on prices and reimbursement levels continue to exist. In various EU member states we expect to be subject to continuous cost-cutting measures, such as lower maximum prices, lower or lack of reimbursement coverage and incentives to use cheaper, usually generic, products as an alternative. Health technology assessment, or HTA, of medicinal products is becoming an increasingly common part of the pricing and reimbursement procedures in some EU member states, including countries representing major markets. The HTA process, which is governed by the national laws of these countries, is the procedure according to which the assessment of the public health impact, therapeutic impact and the economic and societal impact of use of a given medicinal product in the national healthcare systems of the individual country is conducted. HTA generally compares attributes of individual medicinal products, as compared with other treatment options available on the market. The outcome of HTA regarding specific medicinal products will often influence the pricing and reimbursement status granted to these medicinal products by the competent authorities of individual EU member states. On January 31, 2018, the EC adopted a proposal for an HTA regulation intended to boost cooperation among EU member states in assessing health

technologies, including new medicinal products. The proposal, which currently continues its progress through the EU adoption process, provides that EU member states will be able to use common HTA tools, methodologies, and procedures across the EU. Individual EU member states will continue to be responsible for assessing non-clinical (e.g., economic, social and ethical) aspects of health technologies, and making decisions on pricing and reimbursement.

In the EU, our products are marketed through various channels and within different legal frameworks. The making available or placing on the EU market of unauthorized medicinal products is generally prohibited. However, the competent authorities of the EU member states may exceptionally and temporarily allow and reimburse the supply of such unauthorized products, either on a named patient basis or through a compassionate use process, to individual patients or a group of patients with a chronically or seriously debilitating disease or whose disease is considered to be life-threatening, and who cannot be treated satisfactorily by an authorized medicinal product. Such reimbursement may no longer be available if authorization for named patient or compassionate use programs expire or is terminated or if marketing authorization is granted for the product. In some EU member states, authorization and reimbursement policies may also delay commercialization of our products, or may adversely affect our ability to sell our products on a profitable basis. After initial price and reimbursement approvals, reductions in prices and changes in reimbursement levels can be triggered by multiple factors, including reference pricing systems and publication of discounts by third party payors or authorities in other countries. In the EU, prices can be reduced further by parallel distribution and parallel trade, or arbitrage between low-priced and high-priced EU member states.

For more information, including with respect to recent legal developments regarding the Medicaid Drug Rebate program, Medicare Part B, and the 340B program, see the risk factors under the headings "*Adequate coverage and reimbursement from third party payors may not be available for our products and we may be unable to successfully contract for coverage from pharmacy benefit managers and group purchasing organizations, which could diminish our sales or affect our ability to sell our products profitably; conversely, to secure coverage from these organizations, we may be required to pay rebates or other discounts or other restrictions to reimbursement that could diminish our sales,"* "*The pricing of pharmaceutical products has come under increasing scrutiny as part of a global trend toward healthcare cost containment and resulting changes in healthcare law and policy may impact our business in ways that we cannot currently predict, which could have a material adverse effect on our business and financial condition"* and *"If we fail to comply with our reporting and payment obligations under the Medicaid Drug Rebate program or other governmental pricing programs, we could be subject to additional reimbursement requirements, penalties, sanctions and fines, which could have a material adverse effect on our business, financial condition, results of operations and growth prospects"* in Part I, Item 1A of this Annual Report on Form 10-K.

Patient Copay Assistance and Free Product Programs

We have various patient programs to help patients access and pay for our products, including co-pay coupons for certain products, services that help patients determine their insurance coverage for our products, and a free product program. We also make grants to independent charitable foundations that help financially needy patients with their premium, and co-pay and co-insurance obligations. There has been enhanced scrutiny of company-sponsored patient assistance programs, including co-pay assistance programs and donations to third-party charities that provide such assistance, as well as reimbursement support offerings.

The OIG has established guidelines for pharmaceutical manufacturers who make donations to charitable organizations providing co-pay assistance to Medicare patients. Such donations are unlikely to run afoul of the anti-kickback laws provided that the organizations receiving donations, among other things, are *bona fide* charities, are entirely independent of and not controlled by the manufacturer, provide aid to applicants on a first-come basis according to consistent financial criteria, and do not link aid to use of a donor's product. In 2016 and 2017, we received subpoenas from the U.S. Attorney's Office for the District of Massachusetts requesting documents related to our support of charitable organizations that provide financial assistance to Medicare patients. In April 2019, we finalized our civil settlement agreement with the DOJ and OIG, and entered into a corporate integrity agreement requiring us to maintain our ongoing corporate compliance program and obligating us to implement or continue, as applicable, a set of defined corporate integrity activities to ensure compliance with OIG's policies around charitable contributions for a period of five years from the effective date of the corporate integrity agreement.

U.S. Healthcare Reform

The Patient Protection and Affordable Care Act, as amended by the Healthcare and Education Reconciliation Act of 2010, which we refer to together as the Healthcare Reform Act, was intended to expand healthcare coverage within the U.S., primarily through the imposition of health insurance mandates on employers and individuals, the provision of subsidies to eligible individuals enrolled in plans offered on the health insurance exchanges, and the expansion of the Medicaid program. This law has substantially changed the way healthcare is financed by both governmental and private insurers and significantly impacts the pharmaceutical industry. Changes that may affect our business include those governing enrollment in federal healthcare programs, reimbursement changes, benefits for patients within a coverage gap in the Medicare Part D prescription drug program (commonly known as the "donut hole"), rules regarding prescription drug

benefits under the health insurance exchanges, changes to the Medicaid Drug Rebate program, expansion of the 340B program, and fraud and abuse and enforcement. These changes have impacted previously existing government healthcare programs and have resulted in the development of new programs, including Medicare payment for performance initiatives.

Certain provisions of the Healthcare Reform Act have been subject to judicial challenges, as well as efforts to repeal or replace them or to alter their interpretation or implementation. For example, the U.S. Tax Cuts and Jobs Act of 2017, signed into law in December 2017, includes a provision repealing, effective January 1, 2019, the tax-based shared responsibility payment, commonly referred to as the "individual mandate," imposed by the Healthcare Reform Act on certain individuals who fail to maintain qualifying health coverage for all or part of a year. Additional legislative changes, regulatory changes, and judicial challenges related to the Healthcare Reform Act remain possible. The nature and extent of any additional legislative changes, regulatory changes, or judicial challenges to the Healthcare Reform Act are uncertain at this time.

About Jazz Pharmaceuticals plc

Jazz Pharmaceuticals plc was formed under the laws of Ireland (registered number 399192) as a private limited liability company in March 2005 under the name Azur Pharma Limited and was subsequently re-registered as a public limited company under the name Azur Pharma Public Limited Company, or Azur Pharma, in October 2011. On January 18, 2012, the businesses of Jazz Pharmaceuticals, Inc. and Azur Pharma were combined in a merger transaction, in connection with which Azur Pharma was re-named Jazz Pharmaceuticals plc and we became the parent company of and successor to Jazz Pharmaceuticals, Inc.

Our predecessor, Jazz Pharmaceuticals, Inc., was incorporated in California in March 2003 and was reincorporated in Delaware in January 2004.

Available Information

The mailing address of our headquarters is Fifth Floor, Waterloo Exchange, Waterloo Road, Dublin 4, Ireland, and our telephone number at that location is 353-1-634-7800. Our website is www.jazzpharmaceuticals.com.

We file or furnish pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, as applicable, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, amendments to those reports, proxy statements and other information electronically with the SEC. Through a link on our website, we make copies of our periodic and current reports, amendments to those reports, proxy statements and other information available, free of charge, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. Information found on, or accessible through, our website is not a part of, and is not incorporated into, this Annual Report on Form 10-K.

Item 1A. Risk Factors

We have identified the following risks and uncertainties that may have a material adverse effect on our business, financial condition or results of operations. The risks described below are not the only ones we face. Additional risks not presently known to us or that we currently believe are immaterial may also significantly impair our business operations. Our business could be harmed by any of these risks. The trading price of our ordinary shares could decline due to any of these risks, and you may lose all or part of your investment. In assessing these risks, you should also refer to the other information contained in this Annual Report on Form 10-K, including our consolidated financial statements and accompanying notes.

Risks Related to the GW Acquisition and the Combined Company Upon Completion of the Acquisition

We may not realize the anticipated benefits and synergies from our proposed acquisition of GW Pharmaceuticals.

On February 3, 2021, we announced that we have entered into a definitive agreement with GW Pharmaceuticals under which our indirect wholly-owned subsidiary, Jazz Pharmaceuticals UK Holdings Limited, agreed to acquire GW Pharmaceuticals. While we and GW Pharmaceuticals will continue to operate independently until the completion of the acquisition, the success of the acquisition will depend, in part, on our ability to realize the anticipated benefits from successfully combining our and GW Pharmaceuticals' businesses and we plan on devoting substantial management attention and resources to integrating our business practices and operations with GW Pharmaceuticals' so that we can fully realize the anticipated benefits of the acquisition. Nonetheless, the products and technologies acquired may not be successful or continue to grow at the same rate as when operated independently or they may require significantly greater resources and investments than originally anticipated. The transaction could also result in the assumption of unknown or contingent liabilities. In addition, difficulties may arise during the process of combining the operations of our companies that could result in the failure to achieve the

synergies or free cash flow that we anticipate, the failure to integrate operations and internal systems, programs and controls, the loss of key employees that may be difficult to replace in the very competitive pharmaceutical field, the failure to harmonize both companies' corporate cultures, the disruption of each company's ongoing businesses or inconsistencies in standards, controls, procedures and policies that adversely affect our ability to maintain relationships with customers, suppliers, distributors, collaboration partners, clinical trial investigators or managers of our clinical trials. As a result, the anticipated benefits of the acquisition may not be realized fully within the expected timeframe or at all or may take longer to realize or cost more than expected, which could materially and adversely affect our business, financial condition, results of operations and growth prospects.

The pending acquisition of GW Pharmaceuticals may not be completed on the currently contemplated timeline or terms, or at all; and regulatory bodies could impose certain requirements upon the combined company as a condition to approval that could reduce the anticipated benefits of the transaction.

Consummation of the acquisition is conditioned on, among other things, obtaining necessary shareholder and regulatory approvals and the sanction of the High Court of Justice of England and Wales. In addition, the ongoing COVID-19 pandemic could delay the receipt of certain regulatory approvals and the court sanction. If any condition to the acquisition is not satisfied, it could delay or prevent the acquisition from occurring, which could negatively impact the price of our ordinary shares and future business and financial results. Further, as a condition to their approval of the acquisition, regulatory bodies may impose requirements, limitations or costs or require divestitures or place restrictions on the conduct of the combined business after the closing. These requirements, limitations, costs, divestitures or restrictions could jeopardize or delay the consummation of the acquisition or may reduce the anticipated benefits of the transaction. In addition, changes in laws and regulations could adversely impact our post-acquisition profitability and financial results.

Failure to complete the acquisition of GW Pharmaceuticals could have a material and adverse effect on us.

Either we or GW Pharmaceuticals may terminate the transaction agreement in certain circumstances. If the transactions contemplated by the transaction agreement are not completed, our ongoing business may be adversely affected and, without realizing any of the benefits of having completed the transactions, we will be subject to a number of risks, including the following:

- the market price of our ordinary shares could decline;
- we will be required to pay our costs relating to the transactions, such as legal, accounting, financial advisory and printing fees, whether or not the transactions are completed;
- if the transaction agreement is terminated and our board of directors seeks another acquisition, our shareholders cannot be certain that we will be able to find a party willing to enter into a transaction as attractive to us as the acquisition of GW Pharmaceuticals;
- we could be subject to litigation related to any failure to complete the acquisition or related to any enforcement proceeding commenced against us to perform our obligations under the transaction agreement;
- we will not realize the benefit of the time and resources, financial and otherwise, committed by our management to matters relating to the acquisition that could have been devoted to pursuing other beneficial opportunities; and
- we may experience negative reactions from the financial markets or from our customers, suppliers or employees.

Any of these risks could materially and adversely affect our business, financial condition, results of operations and growth prospects. Similarly, delays in the completion of the acquisition could, among other things, result in additional transaction costs, loss of revenue or other negative effects associated with delay and uncertainty about completion of the acquisition and could materially and adversely affect our business, financial condition, results of operations and growth prospects.

The indebtedness of the combined company following the consummation of the acquisition will be substantially greater than our indebtedness on a standalone basis and greater than the combined indebtedness of Jazz Pharmaceuticals and GW Pharmaceuticals prior to the announcement of the acquisition. This increased level of indebtedness could adversely affect the combined company's business flexibility and increase its borrowing costs.

We expect that the cash consideration due to GW Pharmaceuticals' shareholders under the transaction agreement will be approximately $6.5 billion. In addition to using cash on hand, we expect to incur significant acquisition-related debt financing, including secured term loans and senior secured notes. This substantially increased indebtedness and higher debt to equity ratio following the consummation of the acquisition may have the effect of, among other things, reducing the flexibility of the combined company to respond to changing business and economic conditions, lowering the credit ratings of the combined company, increasing the borrowing costs of the combined company and/or requiring the combined company to reduce or delay investments, strategic acquisitions and capital expenditures or to seek additional capital or restructure or refinance its indebtedness.

Risks Related to Our Lead Products and Product Candidates

Our inability to maintain or increase sales from our neuroscience therapeutic area would have a material adverse effect on our business, financial condition, results of operations and growth prospects.

Our business has been substantially dependent on Xyrem® (sodium oxybate) oral solution, and our financial results have been significantly influenced by sales of Xyrem. Our future plans assume that our newly launched oxybate product, Xywav™, with 92%, or approximately 1,000 to 1,500 milligrams per day, less sodium than Xyrem, depending on the dose, absence of a sodium warning and dosing titration option, will become the treatment of choice for patients who can benefit from oxybate treatment, current Xyrem patients, and patients who previously were not prescribed Xyrem, including those patients for whom sodium content is a concern. Our ability to successfully commercialize Xywav will depend on, among other things, our ability to obtain and maintain adequate coverage and reimbursement for Xywav and acceptance of Xywav by payors, physicians and patients. Our ability to maintain or increase oxybate product sales and realize the anticipated benefits from our investment in Xywav is subject to a number of additional risks and uncertainties as discussed in greater detail below, including those related to the introduction of authorized generic and generic versions of sodium oxybate and/or new products for treatment of cataplexy and/or excessive daytime sleepiness, or EDS, in narcolepsy in the U.S. market; the current and potential impacts of the COVID-19 pandemic, including the current and expected future negative impact on demand for our products and the uncertainty with respect to our ability to meet commercial demand in the future; increased pricing pressure from, changes in policies by, or restrictions on reimbursement imposed by, third party payors; and challenges to our intellectual property around Xyrem and/or Xywav. While we expect that our business will continue to be substantially dependent on oxybate product sales from both Xyrem and Xywav, there is no guarantee that we can maintain oxybate sales at or near historical levels, or that oxybate sales will continue to grow. A significant decline in oxybate sales could cause us to reduce our operating expenses or seek to raise additional funds, which would have a material adverse effect on our business, financial condition, results of operations and growth prospects, including on our ability to acquire, in-license or develop new products to grow our business.

As for other products and product candidates in our neuroscience therapeutic area, we obtained approval of Sunosi® (solriamfetol) in 2019 in the U.S. and in January 2020 in the European Union, or EU, for the treatment of EDS associated with narcolepsy or obstructive sleep apnea, or OSA. Our ability to realize the anticipated benefits from our investment in Sunosi is subject to a number of risks and uncertainties, including the potential impacts of the continuing COVID-19 pandemic on the successful commercialization in the U.S. and the rolling launch in Europe, which are at an early stage; market acceptance of Sunosi; our ability, in a competitive retail pharmacy market, to differentiate Sunosi from other products that are prescribed to treat excessive sleepiness in patients with OSA or EDS in patients with narcolepsy; adequate coverage and reimbursement by government programs and other third party payors, including the impact of future coverage decisions by payors; restrictions on permitted promotional activities based on any additional limitations on the labeling for the product that may be required by the U.S. Food and Drug Administration, or FDA, or the European Commission, or the EC, or other regulatory authority in the future; and our ability to satisfy FDA's post-marketing requirements. If we are unable to successfully commercialize Sunosi in the U.S. and EU, or if sales of Sunosi do not reach the levels we expect, our anticipated revenue from Sunosi will be negatively affected, which could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

The introduction of new products in the U.S. market that compete with, or otherwise disrupt the market for, our oxybate products and product candidates would adversely affect sales of our oxybate products and product candidates.

While Xyrem and Xywav are currently the only products approved by FDA and marketed in the U.S. for the treatment of both cataplexy and EDS in both adult and pediatric patients with narcolepsy, new treatment options for EDS in narcolepsy have launched, and in the future, other products may be launched that are competitive with or disrupt the market for our oxybate products.

For example, in the future, we expect Xyrem and Xywav to face competition from authorized generic and generic versions of sodium oxybate. Nine companies have sent us notices that they had filed abbreviated new drug applications, or ANDAs, seeking approval to market a generic version of Xyrem, and we have filed and settled patent lawsuits with all nine companies. To date, FDA has approved or tentatively approved four of these ANDAs, and we believe that it is likely that FDA will approve or tentatively approve some or all of the others. In our patent litigation settlement with the first filer, West-Ward Pharmaceuticals Corp. (a wholly owned subsidiary of Hikma Pharmaceuticals PLC and now known as Hikma in the U.S.), or Hikma, we granted Hikma the right to sell an authorized generic product, or AG Product, with royalties back to us, in the U.S. beginning on January 1, 2023, or earlier under certain circumstances. Hikma has a right to elect to continue to sell the Hikma AG Product for a total of up to five years. We also granted Hikma a license to launch its own generic sodium oxybate product as early as six months after it has the right to sell the Hikma AG Product, but if it elects to launch its own generic product, Hikma will no longer have the right to sell the Hikma AG Product. In our settlements with Amneal Pharmaceuticals LLC, or Amneal, Lupin Inc., or Lupin, and Par Pharmaceutical, Inc., or Par, we granted each party the right to sell a limited volume of an AG Product in the U.S. beginning on July 1, 2023, or earlier under certain circumstances, and ending on December 31, 2025, with royalties back to us. AG Products will be distributed through the same risk evaluation and mitigation strategy, or REMS, as Xyrem and Xywav. We

also granted each of Amneal, Lupin and Par a license to launch its own generic sodium oxybate product under its ANDA on or after December 31, 2025, or earlier under certain circumstances, including the circumstance where Hikma elects to launch its own generic product. If Amneal, Lupin or Par elects to launch its own generic product under such circumstance, it will no longer have the right to sell an AG Product. In our settlements with each of the other five ANDA filers, we granted each a license to launch its own generic sodium oxybate product under its ANDA on or after December 31, 2025, or earlier under certain circumstances, including circumstances where Hikma launches its own generic sodium oxybate product. The actual timing of the launch of an AG Product or generic sodium oxybate product is uncertain because the launch dates of the AG Products and generic sodium oxybate products under our settlement agreements are subject to acceleration under certain circumstances.

Any ANDA holder launching an AG Product or another generic sodium oxybate product will independently establish the price of the AG Product and/or its own generic sodium oxybate product. Generic competition often results in decreases in the prices at which branded products can be sold. After any introduction of a generic product, whether or not it is an AG Product, a significant percentage of the prescriptions written for Xyrem will likely be filled with the generic product. Certain U.S. state laws allow for, and in some instances in the absence of specific instructions from the prescribing physician mandate, the dispensing of generic products rather than branded products when a generic version is available. This would result in reduction in sales of, and revenue from, Xyrem, although we would continue to receive royalties and other revenue based on sales of an AG Product in accordance with the terms of our settlement agreements.

It is possible that additional companies may file ANDAs seeking to market a generic version of Xyrem which could lead to additional patent litigation or challenges with respect to Xyrem. Such patent litigation or challenges could potentially trigger acceleration of the launch dates in our settlement agreements if, for example, our patents covering Xyrem were invalidated. Alternatively, the launch dates in our settlement agreements could be accelerated if a new ANDA filer were to obtain FDA approval for its sodium oxybate product, and launch its generic product through a generic sodium oxybate REMS before the entry dates specified in our settlement agreements. It is also possible that we could enter into a settlement agreement with a future ANDA filer that would permit such filer to enter the market on or prior to the launch date(s) in our settlement agreements. If a company launches a generic or authorized generic sodium oxybate product in any of these scenarios, except in limited circumstances related to an "at risk" launch, the launch date for Hikma's AG Product would be accelerated to a date on or prior to the date of such entry, which could lead to acceleration of the other settling ANDA filers' AG Product and generic sodium oxybate product launch dates as described above.

Another circumstance that could trigger acceleration of Hikma's launch date for an AG Product, which would also accelerate Amneal, Lupin and Par's launch dates for their AG Products and ultimately could lead to acceleration of the other settling ANDA filers' launch dates for their generic sodium oxybate products, is a substantial reduction in Xyrem net sales. Such a reduction could occur under various circumstances, including from our sales of Xywav or if a third party introduces a product to treat EDS or cataplexy in narcolepsy that leads to a substantial decline in Xyrem net sales. Accordingly, our strategy to drive revenue growth in our key franchises through, among other things, rapid adoption and broad access of Xywav in the U.S. could lead to the acceleration of such launch dates. Other companies may develop a sodium oxybate product for treatment of narcolepsy, using an alternative formulation or a different delivery technology, and seek approval in the U.S. using a new drug application, or NDA, approval pathway under Section 505(b)(2) and referencing the safety and efficacy data for Xyrem. In December 2020, Avadel Pharmaceuticals plc, or Avadel, filed a NDA for an extended-release formulation of sodium oxybate which uses its proprietary technology for the treatment of EDS and cataplexy in patients with narcolepsy. Xyrem may also face increased competition from new branded entrants to treat EDS in narcolepsy such as pitolisant. Other companies have announced that they have product candidates in various phases of development to treat the symptoms of narcolepsy, such as Axsome Therapeutics, Inc.'s reboxetine, and various companies are performing research and development on orexin agonists for the treatment of sleep disorders.

We expect that Xywav will face competition similar to that described above for Xyrem, including from generic or authorized generic sodium oxybate products or new branded entrants in narcolepsy. For example, Avadel has announced that it has obtained an orphan drug designation from FDA for its extended-release sodium oxybate formulation. To obtain approval with orphan drug exclusivity, Avadel will have to show clinical superiority to Xyrem and Xywav. We cannot predict the timing or approvability of Avadel's sodium oxybate product candidate or how FDA will evaluate any clinical superiority arguments that either we or Avadel may make, but in any event, we expect to face competition from Avadel, if its product candidate is approved.

Moreover, non-oxybate products intended for the treatment of EDS or cataplexy in narcolepsy, including new market entrants, even if not directly competitive with Xyrem or Xywav, could have the effect of changing treatment regimens and payor or formulary coverage of Xyrem or Xywav in favor of other products, and indirectly materially and adversely affect sales of Xyrem and Xywav. Examples of such new market entrants include our product, Sunosi, and pitolisant, a drug that was approved by FDA in 2019 for the treatment of EDS in adult patients with narcolepsy and recently approved by FDA in October 2020 pursuant to a complete response resubmission for an adult cataplexy indication in the U.S. Pitolisant has also been approved and marketed in Europe to treat adult patients with narcolepsy with or without cataplexy, and a marketing authorization application is pending with the European Medicines Agency, or EMA, for approval of pitolisant in the treatment of EDS in OSA. In addition, we are also aware that prescribers often prescribe branded or generic medications

for cataplexy, before or instead of prescribing oxybate therapy in Xyrem and Xywav, and that payors often require patients to try such medications before they will cover Xyrem or Xywav, even if they are not approved for this use. Examples of such products are described in "Business—Competition" in Part I, Item 1 of this Annual Report on Form 10-K.

We expect that the approval and launch of an AG Product or other generic version of Xyrem could have a material adverse effect on our sales of and revenues from Xyrem and Xywav and on our business, financial condition, results of operations and growth prospects. We also expect that sales of Xywav will, and the approval and launch of any other sodium oxybate (including Avadel's extended-release sodium oxybate formulation) or alternative product that treats narcolepsy could, have a material adverse effect on our sales of and revenues from Xyrem, which could have the additional impact of potentially triggering acceleration of market entry of AG Products or other generic sodium oxybate products under our patent litigation settlement agreements.

The distribution and sale of our oxybate products are subject to significant regulatory restrictions, including the requirements of a REMS, and these regulatory requirements subject us to risks and uncertainties, any of which could negatively impact sales of Xyrem and Xywav.

The active pharmaceutical ingredient, or API, of Xyrem and Xywav, is a form of gamma-hydroxybutyric acid, or GHB, a central nervous system depressant known to be associated with facilitated sexual assault as well as with respiratory depression and other serious side effects. As a result, FDA requires that we maintain a REMS with elements to assure safe use, or ETASU, for Xyrem and Xywav to help ensure that the benefits of the drug in the treatment of cataplexy and EDS in narcolepsy outweigh the serious risks of the drug. The REMS imposes extensive controls and restrictions on the sales and marketing of Xyrem and Xywav that we are responsible for implementing. Any failure to demonstrate our substantial compliance with our REMS obligations, including as a result of business or other interruptions resulting from the evolving effects of the COVID-19 pandemic, or a determination by FDA that the REMS is not meeting its goals, could result in enforcement action by FDA, lead to changes in our REMS obligations, negatively affect sales of Xyrem or Xywav, result in additional costs and expenses for us and/or require us to invest a significant amount of resources, any of which could materially and adversely affect our business, financial condition, results of operations and growth prospects.

FDA has stated that it will evaluate the Xywav and Xyrem REMS on an ongoing basis and will require modifications as may be appropriate. We cannot predict whether FDA will request, seek to require or ultimately require modifications to, or impose additional requirements on, the Xywav and Xyrem REMS, including in connection with the submission of new oxybate products or indications, the introduction of authorized generics, or to accommodate generics, or whether FDA will approve modifications to the Xywav and Xyrem REMS that we consider warranted. Any modifications approved, required or rejected by FDA could change the safety profile of Xywav or Xyrem, and have a significant negative impact in terms of product liability, public acceptance of Xywav or Xyrem as a treatment for cataplexy and EDS in narcolepsy, and prescribers' willingness to prescribe, and patients' willingness to take, Xywav or Xyrem, any of which could have a material adverse effect on our oxybate business. Modifications approved, required or rejected by FDA could also make it more difficult or expensive for us to distribute Xywav or Xyrem, make distribution easier for oxybate competitors, disrupt continuity of care for Xywav or Xyrem patients and/or negatively affect sales of Xywav or Xyrem.

We depend on outside vendors, including Express Scripts Specialty Distribution Services, Inc., the central certified pharmacy, to distribute Xywav and Xyrem in the U.S., provide patient support services and implement the requirements of the Xywav and Xyrem REMS. If the central pharmacy fails to meet the requirements of the Xywav and Xyrem REMS applicable to the central pharmacy or otherwise does not fulfill its contractual obligations to us, moves to terminate our agreement, refuses or fails to adequately serve patients, or fails to promptly and adequately address operational challenges or challenges in implementing REMS modifications, whether due to business or other interruptions resulting from the evolving effects of the COVID-19 pandemic or otherwise, the fulfillment of Xywav or Xyrem prescriptions and our sales would be adversely affected. If we change to a new central pharmacy, new contracts might be required with government payors and other insurers who pay for Xywav or Xyrem, and the terms of any new contracts could be less favorable to us than current agreements. In addition, any new central pharmacy would need to be registered with the U.S. Drug Enforcement Administration, or DEA, and certified and would also need to implement the particular processes, procedures and activities necessary to distribute under the Xywav and Xyrem REMS. Transitioning to a new pharmacy could result in product shortages, which would negatively affect sales of Xywav and Xyrem, result in additional costs and expenses for us and/or take a significant amount of time, any of which could materially and adversely affect our business, financial condition, results of operations and growth prospects.

In its approval of Hikma's ANDA, FDA waived the requirement of a single shared REMS between the brand drug and generic versions, approving Hikma's ANDA with a generic sodium oxybate REMS separate from the Xywav and Xyrem REMS, except for the requirement that the generic sodium oxybate REMS program pharmacies contact the Xywav and Xyrem REMS by phone to verify and report certain information. The generic sodium oxybate REMS was approved with the condition that it be open to all future sponsors of ANDAs or NDAs for sodium oxybate products. A sodium oxybate distribution system that is less restrictive than the Xywav and Xyrem REMS, such as the generic sodium oxybate REMS, which provides that generic sodium oxybate products and potentially new sodium

oxybate products approved under a Section 505(b)(2) NDA approval pathway could be distributed through multiple pharmacies, could increase the risks associated with oxybate distribution. Because patients, consumers and others may not differentiate generic sodium oxybate from Xyrem or differentiate between the different REMS programs, any negative outcomes, including risks to the public, caused by or otherwise related to a separate sodium oxybate REMS, could have a significant negative impact in terms of product liability, our reputation and good will, public acceptance of Xywav or Xyrem as a treatment for cataplexy and EDS in narcolepsy, and prescribers' willingness to prescribe, and patients' willingness to take, Xywav or Xyrem, any of which could have a material adverse effect on our oxybate business.

We may face pressure to further modify the Xyrem and Xywav REMS or to license or share intellectual property pertinent to that REMS, including proprietary data required for the safe distribution of sodium oxybate, in connection with FDA's approval of the generic sodium oxybate REMS or another oxybate REMS that may be submitted or approved in the future. Our settlement agreements with ANDA filers do not directly impact FDA's waiver of the single shared system REMS requirement, any other ANDA or NDA filer's ability to develop and implement the generic sodium oxybate REMS for its sodium oxybate product, or our ability to take any action with respect to the safety of the generic sodium oxybate REMS. We cannot predict the outcome or impact on our business of any future action that we may take with respect to FDA's waiver of the single shared system REMS requirement, its approval and tentative approval of generic versions of sodium oxybate or the consequences of distribution of sodium oxybate through the generic sodium oxybate REMS approved by FDA or another separate REMS.

REMS programs have increasingly drawn public scrutiny from the U.S. Congress, the Federal Trade Commission, or FTC, and FDA, with allegations that such programs are used as a means of improperly blocking or delaying competition. In December 2019, as part of the Further Consolidated Appropriations Act of 2020, the U.S. Congress passed legislation known as the Creating and Restoring Equal Access To Equivalent Samples Act, or CREATES. CREATES is intended to prevent companies from using REMS and other restricted distribution programs as a means to deny potential competitors access to product samples that are reasonably necessary to conduct testing in support of an application that references a listed drug or biologic, and provides such potential competitors a potential private right of action if the innovator fails to timely provide samples upon request. CREATES also grants FDA additional authority regarding approval of generic products with REMS.

It is possible that the FTC, FDA or other governmental authorities could claim that, or launch an investigation into whether, we are using our REMS programs in an anticompetitive manner or have engaged in other anticompetitive practices. The Federal Food, Drug and Cosmetic Act further states that a REMS ETASU shall not be used by an NDA holder to block or delay generic drugs or drugs covered by an application under Section 505(b)(2) from entering the market. In its 2015 letter approving the Xyrem REMS, FDA expressed concern that we were aware that the Xyrem REMS is blocking competition. Between June and September 2020, we were served with a number of class action complaints that included allegations that we had used the Xyrem REMS to delay approval of generic sodium oxybate. In December 2020, these cases were centralized and transferred to the United States District Court for the Northern District of California, where the multidistrict litigation will proceed for the purpose of discovery and pre-trial proceedings. For additional information on these class action complaints, see Note 13, Commitments and Contingencies-Legal Proceedings of the Notes to Consolidated Financial Statements included in this Annual Report on Form 10-K. It is possible that additional lawsuits will be filed against us making similar or related allegations. We cannot predict the outcome of these or potential additional lawsuits; however, if the plaintiffs were to be successful in their claims, they may be entitled to injunctive relief or we may be required to pay significant monetary damages, which could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

Pharmaceutical companies, including their agents and employees, are required to monitor adverse events occurring during the use of their products and report them to FDA. The patient counseling and monitoring requirements of the Xywav and Xyrem REMS provide more extensive information about adverse events experienced by patients taking Xywav and Xyrem, including deaths, than is generally available for other products that are not subject to similar REMS requirements. As required by FDA and other regulatory agencies, the adverse event information that we collect for Xywav and Xyrem is regularly reported to FDA and could result in FDA requiring changes to Xywav and/or Xyrem labeling, including additional warnings or additional boxed warnings, or requiring us to take other actions that could have an adverse effect on patient and prescriber acceptance of Xywav and Xyrem. As required by FDA, Xywav's and Xyrem's current labeling includes a boxed warning regarding the risk of central nervous system depression and misuse and abuse.

Any failure to demonstrate our substantial compliance with the REMS or any other applicable regulatory requirements to the satisfaction of FDA or another regulatory authority could result in such regulatory authorities taking actions in the future which could have a material adverse effect on oxybate product sales and therefore on our business, financial condition, results of operations and growth prospects.

While we expect our oxybate products, Xyrem and our newly approved Xywav, to remain the largest part of our business, our success also depends on our ability to effectively commercialize products in our oncology therapeutic area.

In addition to Xyrem, Xywav and our other neuroscience products and product candidates, we are commercializing a portfolio of products, including our other lead marketed products, Defitelio, Erwinaze, Vyxeos and Zepzelca. An inability to effectively commercialize Defitelio, Vyxeos and Zepzelca and to maximize their potential where possible through successful research and development activities, whether due to the evolving effects of the COVID-19 pandemic or otherwise, and an inability to replace the future product sales we will lose from Erwinaze, would have a material adverse effect on our business, financial condition, results of operations and growth prospects.

Defitelio

Our ability to maintain and grow sales and to realize the anticipated benefits from our investment in Defitelio® (defibrotide sodium) is subject to a number of risks and uncertainties, including continued acceptance by hospital pharmacy and therapeutics committees in the U.S., the EU and other countries; the continued availability of favorable pricing and adequate coverage and reimbursement; the limited experience of, and need to educate, physicians in recognizing, diagnosing and treating hepatic veno-occlusive disease, or VOD, particularly in adults; the possibility that physicians recognizing VOD symptoms may not initiate or may delay initiation of treatment while waiting for those symptoms to improve, or may terminate treatment before the end of the recommended dosing schedule; and the limited size of the population of VOD patients who are indicated for treatment with Defitelio (particularly if changes in hematopoietic stem cell transplantation treatment protocols reduce the incidence of VOD diagnosis and demand for Defitelio).

We announced in April 2020 that we stopped enrollment in our Phase 3 trial evaluating defibrotide in the prevention of VOD due to a determination that the study is highly unlikely to reach one of its primary endpoints. Although we do not expect this outcome to impact clinicians' use of Defitelio in the treatment of VOD, it may result in delays in the initiation of treatment for some patients as clinicians wait for definitive signs and symptoms of VOD. Although we saw a resurgence in demand for Defitelio in the U.S. and outside the U.S. beginning in the end of the second quarter of 2020, due to the evolving effects of the COVID-19 pandemic, the reprioritization of healthcare resources and related delays, postponements or suspensions of certain medical procedures such as stem cell transplants, we continue to expect a negative impact on demand for and utilization of Defitelio. If sales of Defitelio do not reach the levels we expect, our anticipated revenue from the product would be negatively affected and our business, financial condition, results of operations and growth prospects would be materially adversely affected. In addition, because VOD is an ultra-rare disease, we have experienced inter-quarter variability in our Defitelio sales, which makes Defitelio sales difficult to predict from period to period. As a result, Defitelio sales results or trends in any period may not necessarily be indicative of future performance.

Erwinaze

Erwinaze® (asparaginase *Erwinia chrysanthemi*), which is approved to treat a limited population of patients with acute lymphoblastic leukemia, or ALL, who have developed hypersensitivity to *E. coli*-derived asparaginase, is licensed from, and manufactured by, a single source, Porton Biopharma Limited, or PBL, a company that is wholly owned by the UK Department of Health and Social Care. Our license and supply agreement with PBL, which included an exclusive right to market, sell or distribute Erwinaze, an exclusive license to Erwinaze trademarks, and a non-exclusive license to PBL's manufacturing know-how, expired on December 31, 2020. In April 2020, PBL announced that it had entered into an agreement with a new partner to commercialize and distribute Erwinaze. Under our agreement with PBL, we have the right to sell certain Erwinaze inventory for a post-termination sales period of 12 months and retain ownership of certain data, know-how and other property interests, including the biologics license application, or BLA, for Erwinaze in the U.S. and marketing authorizations for Erwinase in several other countries. Subject to successful receipt, release and FDA approval for the batches from PBL, we expect to distribute available Erwinaze supply during the first half of 2021. If we are unable to replace the future product sales we will lose from Erwinaze with our existing or future products, our business, financial condition, results of operations and growth prospects would be materially adversely affected.

In the past, a significant challenge to maintaining sales of Erwinaze and a barrier to increasing sales was PBL's inability to consistently supply product that meets specifications in quantities that are adequate to meet market demand. Other challenges facing Erwinaze include the limited population of patients with ALL, and the incidence of hypersensitivity reactions to *E. coli*-derived asparaginase within that population; the development and/or approval of new asparaginase treatments or treatment protocols for ALL that may not include asparaginase-containing regimens and prescribers' use of alternate methods to address hypersensitivity reactions; difficulties with obtaining and maintaining favorable pricing and reimbursement arrangements; and potential competition from future biosimilar products.

Vyxeos

Our ability to realize the anticipated benefits from our investment in Vyxeos® (daunorubicin and cytarabine) liposome for injection by successfully and sustainably growing sales is subject to a number of risks and uncertainties, including our ability to differentiate Vyxeos from other liposomal chemotherapies and generically available chemotherapy combinations with which physicians and treatment centers

are more familiar; acceptance by hospital pharmacy and therapeutics committees in the U.S., the EU and other countries; the increasing complexity of the acute myeloid leukemia, or AML, landscape requiring changes in patient identification and treatment selection, including diagnostic tests and monitoring that clinicians may find challenging to incorporate; the use of new and novel compounds in AML that are either used off-label or are only approved for use in combination with other agents and that have not been tested in combination with Vyxeos; the increasing use of venetoclax, which received full FDA approval in October 2020 for AML treatment; the limited size of the population of high-risk AML patients who may potentially be indicated for treatment with Vyxeos, particularly as a result of the shift of healthcare resources toward less intensive outpatient AML treatments in the U.S. in light of the COVID-19 pandemic which is directly negatively impacting, or delaying, the use of Vyxeos, as well as the suspension of in-person interactions with healthcare professionals due to the COVID-19 pandemic; the availability of adequate coverage, pricing and reimbursement approvals, competition from new and existing products and potential competition from products in development; and delays or problems in the supply or manufacture of Vyxeos. Although we saw some recovery in demand for Vyxeos beginning in the end of the second quarter of 2020, due to the ongoing impacts of the COVID-19 pandemic, we continue to expect a negative impact on demand for and utilization of Vyxeos compared to historical periods. If sales of Vyxeos do not reach the levels we expect, our anticipated revenue from the product would be negatively affected, which would have a material adverse effect on our business, financial condition, results of operations and growth prospects.

Zepzelca

Our ability to realize the anticipated benefits from our investment in Zepzelca® (lurbinectedin) is subject to a number of risks and uncertainties, including our ability to successfully commercialize Zepzelca in the U.S.; adequate supply of Zepzelca to meet demand; availability of favorable pricing and adequate coverage and reimbursement; the limited experience of, and need to educate, physicians in the use of Zepzelca for the treatment of metastatic small cell lung cancer, or SCLC; the potential for negative trial data read-outs in ongoing or future Zepzelca clinical trials; our and Pharma Mar, S.A., or PharmaMar's ability to maintain accelerated approval or obtain FDA's agreement as to a confirmatory study of Zepzelca; and the impact of the evolving effects of the COVID-19 pandemic on our ability to educate health care providers about Zepzelca in the treatment of relapsed, metastatic SCLC in the U.S.

We face substantial competition from other companies, including companies with larger sales organizations and more experience working with large and diverse product portfolios.

Our products compete, and our product candidates may in the future compete, with currently existing therapies, including generic drugs, product candidates currently under development by us and others and/or future product candidates, including new chemical entities that may be safer or more effective or more convenient than our products. Any products that we develop may be commercialized in competitive markets, and our competitors, which include large global pharmaceutical companies and small research-based companies and institutions, may succeed in developing products that render our products obsolete or noncompetitive. Many of our competitors, particularly large pharmaceutical and life sciences companies, have substantially greater financial, operational and human resources than we do. Smaller or earlier stage companies may also prove to be significant competitors, particularly through focused development programs and collaborative arrangements with large, established companies. In addition, many of our competitors deploy more personnel to market and sell their products than we do, and we compete with other companies to recruit, hire, train and retain pharmaceutical sales and marketing personnel. If our sales force and sales support organization are not appropriately resourced and sized to adequately promote our products, the commercial potential of our current and any future products may be diminished. In any event, the commercial potential of our current products and any future products may be reduced or eliminated if our competitors develop or acquire and commercialize generic or branded products that are safer or more effective, are more convenient or are less expensive than our products. For a description of the competition that our lead marketed products and most advanced product candidates face or may face, see the discussion in "Business—Competition" in Part I, Item 1 of this Annual Report on Form 10-K and the risk factor under the heading "*The introduction of new products in the U.S. market that compete with, or otherwise disrupt the market for, our oxybate products and product candidates would adversely affect sales of our oxybate products and product candidates"* in this Part I, Item 1A.

Adequate coverage and reimbursement from third party payors may not be available for our products and we may be unable to successfully contract for coverage from pharmacy benefit managers and group purchasing organizations, which could diminish our sales or affect our ability to sell our products profitably; conversely, to secure coverage from these organizations, we may be required to pay rebates or other discounts or other restrictions to reimbursement that could diminish our sales.

In both U.S. and non-U.S. markets, our ability to successfully commercialize and achieve market acceptance of our products depends in significant part on adequate financial coverage and reimbursement from third party payors, including governmental payors (such as the Medicare and Medicaid programs in the U.S.), managed care organizations and private health insurers. Without third party payor reimbursement, patients may not be able to obtain or afford prescribed medications. In addition, reimbursement guidelines and incentives provided to prescribing physicians by third party payors may have a significant impact on the prescribing physicians' willingness and ability to prescribe our products. The demand for, and the profitability of, our products could be materially harmed if the Medicaid program,

Medicare program, other healthcare programs in the U.S. or elsewhere, or third party commercial payors in the U.S. or elsewhere deny reimbursement for our products, limit the indications for which our products will be reimbursed, or provide reimbursement only on unfavorable terms. In particular, we cannot predict to what extent the evolving effects of the COVID-19 pandemic may disrupt global healthcare systems and access to our products or result in a widespread loss of individual health insurance coverage due to unemployment, a shift from commercial payor coverage to government payor coverage, or an increase in demand for patient assistance and/or free drug programs, any of which could adversely affect net revenue.

As part of the overall trend toward cost containment, third party payors often require prior authorization for, and require reauthorization for continuation of, prescription products or impose step edits, which require prior use of another medication, usually a generic or preferred brand, prior to approving coverage for a new or more expensive product. Such restrictive conditions for reimbursement and an increase in reimbursement-related activities can extend the time required to fill prescriptions and may discourage patients from seeking treatment. We cannot predict actions that third party payors may take, or whether they will limit the access and level of reimbursement for our products or refuse to provide any approvals or coverage. From time to time, third party payors have refused to provide reimbursement for our products, and others may do so in the future.

Third party payors increasingly examine the cost-effectiveness of pharmaceutical products, in addition to their safety and efficacy, when making coverage and reimbursement decisions. We may need to conduct expensive pharmacoeconomic and/or clinical studies in order to demonstrate the cost-effectiveness of our products. If our competitors offer their products at prices that provide purportedly lower treatment costs than our products, or otherwise suggest that their products are safer, more effective or more cost-effective than our products, this may result in a greater level of access for their products relative to our products, which would reduce our sales and harm our results of operations. In some cases, for example, third party payors try to encourage the use of less expensive generic products through their prescription benefit coverage and reimbursement and co-pay policies. Because some of our products compete in a market with both branded and generic products, obtaining and maintaining access and reimbursement coverage for our products may be more challenging than for products that are new chemical entities for which no therapeutic alternatives exist.

Third party pharmacy benefit managers, or PBMs, group purchasing organizations, or GPOs, and payors can limit coverage to specific products on an approved list, or formulary, which might not include all of the approved products for a particular indication, and to exclude drugs from their formularies in favor of competitor drugs or alternative treatments, or place drugs on formulary tiers with higher patient co-pay obligations, and/or to mandate stricter utilization criteria. Formulary exclusion effectively encourages patients and providers to seek alternative treatments, make a complex and time-intensive request for medical exemptions, or pay 100% of the cost of a drug. In addition, in many instances, certain PBMs, GPOs and third party payors may exert negotiating leverage by requiring incremental rebates, discounts or other concessions from manufacturers in order to maintain formulary positions, which could continue to result in higher gross to net deductions for affected products. In this regard, we have entered into agreements with PBMs and payor accounts to provide rebates to those entities related to formulary coverage for Xyrem, Xywav and Sunosi, but we cannot guarantee that we will be able to agree to coverage terms with other PBMs and other third party payors. We are seeking to secure payor coverage for Xywav that is similar to Xyrem and have implemented patient access programs for Xywav to support patients in obtaining access to Xywav during the launch period. However, payors could decide to exclude Xywav from formulary coverage lists, impose step edits that require patients to try alternative, including generic, treatments before authorizing payment for Xywav, limit the types of diagnoses for which coverage will be provided or impose a moratorium on coverage for products while the payor makes a coverage decision. An inability to obtain or maintain adequate formulary positions could increase patient cost-sharing for Xywav and cause some patients to determine not to use Xywav. Any delays or unforeseen difficulties in obtaining access or reimbursement approvals could limit patient access, depress therapy adherence rates, and adversely impact our ability to successfully commercialize Xywav. If we are unsuccessful in obtaining broad coverage for Xywav, our anticipated revenue from and growth prospects for Xywav could be negatively affected.

In many countries outside the U.S., procedures to obtain price approvals, coverage and reimbursement can take considerable time after the receipt of marketing authorization. Many European countries periodically review their reimbursement of medicinal products, which could have an adverse impact on reimbursement status. In addition, we expect that legislators, policymakers and healthcare insurance funds in the EU member states will continue to propose and implement cost-containing measures, such as lower maximum prices, lower or lack of reimbursement coverage and incentives to use cheaper, usually generic, products as an alternative to branded products, and/or branded products available through parallel import to keep healthcare costs down. Moreover, in order to obtain reimbursement for our products in some European countries, including some EU member states, we may be required to compile additional data comparing the cost-effectiveness of our products to other available therapies. Health Technology Assessment, or HTA, of medicinal products is becoming an increasingly common part of the pricing and reimbursement procedures in some EU member states, including those representing the larger markets. The HTA process, which is currently governed by the laws in these countries, is the procedure to assess therapeutic, economic and societal impact of a given medicinal product in the national healthcare systems of the individual country. The outcome of an HTA will often influence the pricing and reimbursement status granted to these medicinal products by the competent authorities of

individual EU member states. The extent to which pricing and reimbursement decisions are influenced by the HTA of the specific medicinal product currently varies between EU member states, although a legislative proposal adopted by the EC in January 2018 concerning EU regulation governing HTA procedures may eventually lead to harmonization. If we are unable to maintain favorable pricing and reimbursement status in EU member states that represent significant markets, our anticipated revenue from and growth prospects for our products in the EU could be negatively affected. For example, the EC granted marketing authorization for Vyxeos in August 2018 and for Sunosi in January 2020, and, as part of our rolling launches of Vyxeos and Sunosi in Europe, we are making pricing and reimbursement submissions in European countries. Due to the evolving effects of the COVID-19 pandemic, we currently anticipate delays by certain European regulatory authorities in their pricing and reimbursement reviews. If we experience setbacks or unforeseen difficulties in obtaining favorable pricing and reimbursement decisions, including as a result of regulatory review delays due to the COVID-19 pandemic, planned launches in the affected EU member states would be delayed, which could negatively impact anticipated revenue from and growth prospects for Vyxeos and/or Sunosi.

The pricing of pharmaceutical products has come under increasing scrutiny as part of a global trend toward healthcare cost containment and resulting changes in healthcare law and policy may impact our business in ways that we cannot currently predict, which could have a material adverse effect on our business and financial condition.

Political, economic and regulatory influences are subjecting the healthcare industry in the U.S. to fundamental changes, particularly given the current atmosphere of mounting criticism of prescription drug costs in the U.S. We expect there will continue to be legislative and regulatory proposals to change the healthcare system in ways that could impact our ability to sell our products profitably, as governmental oversight and scrutiny of biopharmaceutical companies is increasing. For example, we anticipate that the U.S. Congress, state legislatures, and regulators may adopt or accelerate adoption of new healthcare policies and reforms intended to curb healthcare costs, such as federal and state controls on reimbursement for drugs (including under Medicare, Medicaid and commercial health plans), new or increased requirements to pay prescription drug rebates and penalties to government health care programs, and additional pharmaceutical cost transparency policies that aim to require drug companies to justify their prices through required disclosures. There is also proposed legislation pending that would implement a Most Favored Nation, or MFN, pricing model. If a MFN pricing model were applied to any of our products, our revenues from U.S. sales of such products could decrease.

Legislative and regulatory proposals that have recently been considered include legislative proposals to limit the terms of patent litigation settlements with generic sponsors, and proposals to define certain conduct around patenting and new product development as unfair competition. All such considerations may adversely affect our business and industry in ways that we cannot accurately predict. FDA recently issued a final regulation, as well as guidance for industry, permitting the importation of drugs into the U.S. from other countries under certain circumstances, although it is currently unclear whether stakeholders will avail themselves of these pathways. Any of our products becoming subject to importation could negatively affect our business in ways that we cannot accurately predict.

There is also ongoing activity related to health care coverage. The Affordable Care Act substantially changed the way healthcare is financed by both governmental and private insurers. These changes impacted previously existing government healthcare programs and have resulted in the development of new programs, including Medicare payment-for-performance initiatives. The Affordable Care Act is currently subject to a broad legal challenge in *California vs. Azar* before the Supreme Court. Were the Supreme Court to invalidate the Affordable Care Act, that could have far-reaching consequences of an uncertain nature for our industry. However, the Biden administration and Democratically-controlled Congress are expected to take significant action to mitigate any ruling against the Affordable Care Act. Further, the administration and Congress are expected to take notable steps towards expanding health care coverage beyond the Affordable Care Act, which could have ramifications for the pharmaceutical industry.

If healthcare policies or reforms intended to curb healthcare costs are adopted or if we experience negative publicity with respect to pricing of our products or the pricing of pharmaceutical drugs generally, the prices that we charge for our products, including Xyrem and Xywav, may be affected, our commercial opportunity may be limited and/or our revenues from sales of our products may be negatively impacted. We have periodically increased the price of Xyrem, most recently in January 2021, and there is no guarantee that we will make similar price adjustments to Xyrem and Xywav in the future or that price adjustments we have taken or may take in the future will not negatively affect Xyrem or Xywav sales volumes and revenues. We also have made and may in the future make price adjustments on our other products. There is no guarantee that such price adjustments will not negatively affect our reputation and our ability to secure and maintain reimbursement coverage for our products, which could limit the prices that we charge for our products, including Xyrem and Xywav, limit the commercial opportunities for our products and/or negatively impact revenues from sales of our products.

If we become the subject of any future government investigation or U.S. Congressional oversight with respect to drug pricing or other business practices, we could incur significant expense and could be distracted from operation of our business and execution of our strategy. Any such investigation or hearing could also result in reduced market acceptance and demand for our products, could harm our reputation and our ability to market our products in the future, and could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

We expect that legislators, policymakers and healthcare insurance funds in Europe will continue to propose and implement cost-containing measures to keep healthcare costs down. These measures could include limitations on the prices we will be able to charge for our products or the level of reimbursement available for these products from governmental authorities or third party payors. Further, an increasing number of European and other foreign countries use prices for medicinal products established in other countries as "reference prices" to help determine the price of the product in their own territory. Consequently, a downward trend in prices of medicinal products in some countries could contribute to similar downward trends elsewhere.

In addition to access, coverage and reimbursement, the commercial success of our products depends upon their market acceptance by physicians, patients, third party payors and the medical community.

If physicians do not prescribe our products, we cannot generate the revenues we anticipate from product sales. Market acceptance of each of our products by physicians, patients, third party payors and the medical community depends on:

- the clinical indications for which a product is approved and any restrictions placed upon the product in connection with its approval, such as a REMS or equivalent obligation imposed in a European or other foreign country, patient registry requirements or labeling restrictions;
- the prevalence of the disease or condition for which the product is approved and its diagnosis;
- the efficacy of the product in regular use;
- the severity of side effects and other risks in relation to the benefits of our products;
- unanticipated serious adverse events;
- acceptance by physicians and patients of each product as a safe and effective treatment;
- availability of sufficient product inventory to meet demand, particularly with respect to Erwinaze;
- physicians' decisions relating to treatment practices based on availability of product, particularly with respect to Erwinaze;
- perceived clinical superiority and/or advantages over alternative treatments;
- relative convenience and ease of administration;
- with respect to Xyrem and Xywav, physician and patient assessment of the burdens associated with obtaining or maintaining the certifications required under the Xyrem and Xywav REMS or equivalent obligation imposed in a European or other foreign country;
- the cost of treatment in relation to alternative treatments, including generic products; and
- the availability of financial or other assistance for patients who are uninsured or underinsured.

Because of our dependence upon market acceptance of our products, any adverse publicity associated with harm to patients or other adverse events resulting from the use or misuse of any of our products or any similar products distributed by other companies, including generic versions of our products, could materially and adversely affect our business, financial condition, results of operations and growth prospects. For example, from time to time, there is negative publicity about illicit GHB and its effects, including with respect to illegal use, overdoses, serious injury and death. Because sodium oxybate, the API in Xyrem, is a derivative of GHB, Xyrem sometimes also receives negative mention in publicity relating to GHB. Xywav includes the same API as Xyrem, but uses a different mixture of salts. Patients, physicians and regulators may therefore view Xyrem or Xywav as the same as or similar to illicit GHB. In addition, there are regulators and some law enforcement agencies that oppose the prescription and use of Xyrem, and potentially other oxybate products generally because of their connection to GHB. The labels for Xyrem and Xywav authorized in the United States include information about adverse events from GHB.

Delays or problems in the supply of our products for sale or for use in clinical trials, loss of our single source suppliers or failure to comply with manufacturing regulations could materially and adversely affect our business, financial condition, results of operations and growth prospects.

The manufacture of pharmaceutical products requires significant expertise and capital investment, including the development of process controls required to consistently produce the API and the finished product in sufficient quantities while meeting detailed product specifications on a repeated basis. We and our suppliers may encounter difficulties in production, including difficulties with procurement of manufacturing materials, production costs and yields, process controls, quality control and quality assurance, including testing of stability, impurities and impurity levels and other product specifications by validated test methods, and compliance with strictly enforced U.S., state

and non-U.S. regulations. In addition, we and our suppliers are subject to FDA's current Good Manufacturing Practices, or cGMP, requirements, DEA regulations and equivalent rules and regulations prescribed by non-U.S. regulatory authorities. If we or any of our suppliers encounter manufacturing, quality or compliance difficulties with respect to any of our products, whether due to the evolving effects of the COVID-19 pandemic (including as a result of disruptions of global shipping and the transport of products) or otherwise, we may be unable to obtain or maintain regulatory approval or meet commercial demand for such products, which could adversely affect our business, financial condition, results of operations and growth prospects. In addition, we could be subject to enforcement action by regulatory authorities for our failure to comply with cGMP with respect to the products we manufacture in our facilities as well as for our failure to adequately oversee compliance with cGMP by any of our third party suppliers operating under contract. Moreover, failure to comply with applicable legal and regulatory requirements subjects us and our suppliers to possible regulatory action, including restrictions on supply or shutdown, which may adversely affect our or a supplier's ability to supply the ingredients or finished products we need.

We have a manufacturing and development facility in Athlone, Ireland where we manufacture Xyrem and Xywav, and a manufacturing plant in Italy where we produce the defibrotide drug substance. We currently do not have our own commercial manufacturing or packaging capability for our other products, product candidates or their APIs. As a result, our ability to develop and supply products in a timely and competitive manner depends primarily on third party suppliers being able to meet our ongoing commercial and clinical trial needs for API, other raw materials, packaging materials and finished products. Our manufacturing facility in Athlone, Ireland currently continues to be operational with essential staff onsite and office-based staff working remotely. In March 2020, we temporarily ceased operations at our Villa Guardia, Italy manufacturing facility, which produces defibrotide, to ensure the safety of our employees and communities in northern Italy. We reopened the facility in the second quarter of 2020 taking into account applicable public health authority and local government guidelines as well as employee safety, and the facility has now resumed operations with essential staff onsite and office-based staff working remotely. However, the effects of the COVID-19 pandemic continue to rapidly evolve and even if our employees more broadly return to work in our global offices, the field and our manufacturing facilities, we may nevertheless have to resume a remote work model, whether as a result of spikes or surges in COVID-19 infection or hospitalization rates or otherwise.

In part due to the limited market size for our products and product candidates, we have a single source of supply for most of our marketed products, product candidates and their APIs. Single sourcing puts us at risk of interruption in supply in the event of manufacturing, quality or compliance difficulties. If one of our suppliers fails or refuses to supply us for any reason, it would take a significant amount of time and expense to implement and execute the necessary technology transfer to, and to qualify, a new supplier. FDA and similar international or national regulatory bodies must approve manufacturers of the active and inactive pharmaceutical ingredients and certain packaging materials used in our products. If there are delays in qualifying new suppliers or facilities or a new supplier is unable to meet FDA's or similar international regulatory body's requirements for approval, there could be a shortage of the affected products for the marketplace or for use in clinical studies, or both, which could negatively impact our anticipated revenues and could potentially cause us to breach contractual obligations with customers or to violate local laws requiring us to deliver the product to those in need.

Vyxeos is manufactured by Baxter Oncology GmbH, or Baxter, which is a sole source supplier from a single site location. Baxter has experienced batch failures due to mechanical, component and other issues in the production of Vyxeos, and batches have been produced that have otherwise not been in compliance with applicable specifications. We are continuing to work with Baxter to address manufacturing complexities related to Vyxeos. Moreover, the proprietary technology that supports the manufacture of Vyxeos is not easily transferable. Consequently, engaging an alternate manufacturer may be difficult, costly and time-consuming. If we fail to obtain a sufficient supply of Vyxeos in accordance with applicable specifications on a timely basis, our sales of and revenues from Vyxeos, our future maintenance and potential growth of the market for this product, our ability to conduct ongoing and future clinical trials of Vyxeos, and our business, financial condition, results of operations and growth prospects could be materially adversely affected. In addition, while the APIs in Vyxeos, daunorubicin and cytarabine, are available from a number of suppliers, certain suppliers have received warning letters from FDA. As a result, we have qualified other suppliers for each API, and we provided the qualification data to FDA. If FDA restricts importation of API from either supplier, and we are unable to qualify API from additional suppliers in a timely manner, or at all, our ability to successfully commercialize Vyxeos and generate sales of this product at the level we expect and to conduct ongoing and future clinical trials of Vyxeos could be materially and adversely affected.

In addition, in order to conduct our ongoing and any future clinical trials of, complete marketing authorization submissions for, and potentially launch our other product candidates, we also need to have sufficient quantities of product manufactured.

Moreover, to obtain approval from FDA or a similar international or national regulatory body of any product candidate, we or our suppliers for that product must obtain approval by the applicable regulatory body to manufacture and supply product, in some cases based on qualification data provided to the applicable body as part of our regulatory submission. Any delay in generating, or failure to generate, data required in connection with submission of the chemistry, manufacturing and controls portions of any regulatory submission could negatively impact our ability to meet our anticipated submission dates, and therefore our anticipated timing for obtaining FDA or similar

international or national regulatory body approval, or our ability to obtain regulatory approval at all. In addition, any failure of us or a supplier to obtain approval by the applicable regulatory body to manufacture and supply product or any delay in receiving, or failure to receive, adequate supplies of a product on a timely basis or in accordance with applicable specifications could negatively impact our ability to successfully launch and commercialize products and generate sales of products at the levels we expect.

If the effects of the COVID-19 pandemic become more severe and begin to impact supply of manufacturing materials or essential distribution systems such as general delivery services, or require us or our suppliers to again cease or restrict operations at our respective manufacturing facilities, we could experience disruptions to our supply chain and operations, and associated delays in the manufacturing and supply of our products, which would adversely impact our ability to generate sales of and revenues from our approved products and our business, financial condition, results of operations and growth prospects would be materially adversely affected.

Risks Related to Growth of Our Product Portfolio and Research and Development

Our future success depends on our ability to successfully develop and obtain and maintain regulatory approvals for our late-stage product candidates and, if approved, to successfully launch and commercialize those product candidates.

The testing, manufacturing and marketing of our products require regulatory approvals, including approval from FDA and similar bodies in Europe and other countries. If FDA, the EC or the competent authorities of the EU member states or other European countries determine that our quality, safety or efficacy data do not warrant marketing approval for a product candidate, we could be required to conduct additional clinical trials as a condition to receiving approval, which could be costly and time-consuming and could delay or preclude the approval of our application. Our inability to obtain and maintain regulatory approval for our product candidates in the U.S. and Europe and to successfully commercialize new products that are approved would prevent us from receiving a return on our investments and could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

Due to the evolving effects of the COVID-19 pandemic, it is possible that we could experience delays in the timing of marketing application review by regulatory authorities and/or our interactions with regulatory authorities due to limited staffing or working hours of governmental employees, governmental "stay-at-home" orders and travel restrictions with respect to physical inspections if required for regulatory approval, or the diversion of regulatory authority efforts and attention to approval of other therapeutics or other activities related to COVID-19, which could delay anticipated approval decisions and otherwise delay or limit our ability to make planned regulatory submissions or obtain new product approvals. It is possible that we could experience delays in regulatory interactions and review of submissions due to COVID-19 impacts described above, such as with respect to our BLA submission of JZP-458 or our supplemental new drug application, or sNDA, submission of JZP-258 for idiopathic hypersomnia.

Even if we receive approval of a product, regulatory authorities may impose significant labeling restrictions or requirements, including limitations on the dosing of the product, requirements around the naming or strength of a product, restrictions on indicated uses for which we may market the product, the imposition of a boxed warning or other warnings and precautions, and/or the requirement for a REMS or equivalent obligation imposed in a European or other foreign country to ensure that the benefits of the drug outweigh the risks. FDA requires a REMS and a boxed warning for Xyrem and Xywav, and similar restrictions could be imposed on other products in the future. Our receipt of approval for narrower indications than sought, restrictions on marketing through a REMS or equivalent obligation imposed in a European or other foreign country, or significant labeling restrictions or requirements in an approved label such as a boxed warning, could have a negative impact on our ability to recoup our research and development costs and to successfully commercialize that product, any of which could materially and adversely affect our business, financial condition, results of operations and growth prospects.

Regulatory authorities may also impose post-marketing obligations as part of their approval, which may lead to additional costs and burdens associated with commercialization of the drug, and may pose a risk to maintaining approval of the drug. We are subject to certain post-marketing requirements and commitments in connection with the approval of certain of our products, including Defitelio, Erwinaze, Vyxeos, Sunosi and Zepzelca. These post-marketing requirements and commitments include satisfactorily conducting multiple post-marketing clinical trials and safety studies. For example, FDA granted accelerated approval to Zepzelca for relapsed SCLC based on data from a Phase 2 trial, which approval is contingent upon verification and description of clinical benefit in a post-marketing clinical trial. However, FDA confirmed that the clinical benefit of Zepzelca based on the results of the ATLANTIS Phase 3 clinical trial evaluating Zepzelca in combination with doxorubicin for relapsed SCLC did not provide sufficient verification and we and PharmaMar will therefore need to conduct one or more additional clinical trials of Zepzelca to confirm its clinical benefit. Our failure to do so could result in the withdrawal of approval of Zepzelca, which could have a material adverse effect on our business, financial condition, results of operations and growth prospects. In any event, if we are unable to comply with our post-marketing obligations imposed as part of the marketing approvals in the U.S., the EU, or other European countries, our approval may be varied, suspended or revoked, product supply may be delayed and our sales of and revenues from our products could be materially adversely affected.

We are pursuing activities related to the development of additional asparaginase products for patients with ALL or other hematological malignancies. Several of our external research and development collaborations are focused on these efforts, including our agreement with Ligand Pharmaceuticals Incorporated, or Ligand. Among the product candidates being developed under our Ligand agreement is JZP-458, a recombinant Erwinia asparaginase product candidate, for the potential treatment of ALL and lymphoblastic lymphoma who have hypersensitivity to E. coli-derived asparaginase. We also have clinical development efforts focused on expanding the potential of Defitelio, Vyxeos, Sunosi and Xywav, as well as clinical development efforts focused on JZP-385 for the treatment of essential tremor. Because combination regimens and the continual generation of new data have become particularly important in AML, if we are unable to initiate multiple combination studies, safely combine Vyxeos with novel agents, or if efficacy results do not meet clinicians' expectations, our growth prospects could be materially adversely affected. If we are not successful in the clinical development of our product candidates, if we are unable to obtain regulatory approval for our product candidates in a timely manner, or at all, or if sales of an approved product do not reach the levels we expect, our anticipated revenue from our product candidates would be negatively affected, which could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

We may not be able to successfully identify and acquire or in-license additional products or product candidates to grow our business, and, even if we are able to do so, we may otherwise fail to realize the anticipated benefits of these transactions.

In addition to continued investment in our research and development pipeline, we intend to grow our business by acquiring or in-licensing, and developing, including with collaboration partners, additional products and product candidates that we believe are highly differentiated and have significant commercial potential. However, we may be unable to identify or consummate suitable acquisition or in-licensing opportunities, and this inability could impair our ability to grow our business. Other companies, many of which may have substantially greater financial, sales and marketing resources, compete with us for these opportunities. Even if appropriate opportunities are available, we may not be able to successfully identify them, or we may not have the financial resources necessary to pursue them.

Even if we are able to successfully identify and acquire, in-license or develop additional products or product candidates, we may not be able to successfully manage the risks associated with integrating any products or product candidates into our portfolio or the risks arising from anticipated and unanticipated problems in connection with an acquisition or in-licensing. Further, while we seek to mitigate risks and liabilities of potential acquisitions and in-licensing transactions through, among other things, due diligence, there may be risks and liabilities that such due diligence efforts fail to discover, that are not disclosed to us, or that we inadequately assess. Any failure in identifying and managing these risks, liabilities and uncertainties effectively, could have a material adverse effect on our business, results of operations and financial condition. In addition, product and product candidate acquisitions, particularly when the acquisition takes the form of a merger or other business consolidation, have required, and any similar future transactions also will require, significant efforts and expenditures, including with respect to transition and integration activities. We may encounter unexpected difficulties, or incur substantial costs, in connection with potential acquisitions and similar transactions, which include:

- the need to incur substantial debt and/or engage in dilutive issuances of equity securities to pay for acquisitions;
- the potential disruption of our historical core business;
- the strain on, and need to continue to expand, our existing operational, technical, financial and administrative infrastructure;
- the difficulties in integrating acquired products and product candidates into our portfolio;
- the difficulties in assimilating employees and corporate cultures;
- the failure to retain key managers and other personnel;
- the need to write down assets or recognize impairment charges;
- the diversion of our management's attention to integration of operations and corporate and administrative infrastructures; and
- any unanticipated liabilities for activities of or related to the acquired business or its operations, products or product candidates.

Moreover, if the effects of the COVID-19 pandemic become more severe, we could experience an inability to access additional capital, which could in the future negatively affect our capacity for certain corporate development transactions or our ability to make other important, opportunistic investments.

As a result of these or other factors, products or product candidates we acquire, or obtain licenses to, may not produce the revenues, earnings or business synergies that we anticipated, acquired or in-licensed product candidates may not result in regulatory approvals, and acquired or licensed products may not perform as expected. Failure to manage effectively our growth through acquisitions or in-licensing transactions could adversely affect our growth prospects, business, results of operations and financial condition.

Conducting clinical trials is costly and time-consuming, and the outcomes are uncertain. A failure to prove that our product candidates are safe and effective in clinical trials, or to generate data in clinical trials to support expansion of the therapeutic uses for our existing products, could materially and adversely affect our business, financial condition, results of operations and growth prospects.

As a condition to regulatory approval, each product candidate must undergo extensive and expensive preclinical studies and clinical trials to demonstrate to a statistically significant degree that the product candidate is safe and effective. The results at any stage of the development process may lack the desired safety, efficacy or pharmacokinetic characteristics. If FDA determines that the safety or efficacy data to be submitted to FDA in the BLA for JZP-458 or the sNDA for JZP-258 for idiopathic hypersomnia, do not warrant marketing approval, we may be required to conduct additional clinical trials, which could be costly and time-consuming. Even if we believe we have successfully completed testing, FDA or any equivalent non-U.S. regulatory agency may determine our data is not sufficiently compelling to warrant marketing approval for the indications sought, if at all, and may require us to engage in additional clinical trials or provide further analysis which may be costly and time-consuming. Any adverse events or other data generated during the course of clinical trials of our product candidates and/or clinical trials related to additional indications for our commercialized products could result in action by FDA or a non-U.S. regulatory agency, which may restrict our ability to sell, or adversely affect sales of, currently marketed products, or such events or other data could otherwise have a material adverse effect on a related commercial product, including with respect to its safety profile. Any failure or delay in completing such clinical trials could materially and adversely affect the maintenance and growth of the markets for the related marketed products, which could adversely affect our business, financial condition, results of operations and overall growth prospects.

In addition to issues relating to the results generated in clinical trials, clinical trials can be delayed or halted for a variety of reasons, including:

- direct and indirect impacts of the evolving effects of the COVID-19 pandemic on various aspects and stages of the clinical development process, including the inherent limitations of remote and virtual approaches;
- difficulty identifying, recruiting or enrolling eligible patients, often based on the number of clinical trials, particularly in oncology, with enrollment criteria targeting the same patient population;
- significant reprioritization and diversion of healthcare resources away from the conduct of clinical trials as a result of the COVID-19 pandemic, including the diversion of hospitals serving as our clinical trial sites and hospital staff supporting the conduct of our clinical trials;
- difficulty identifying a clinical development pathway, including viable indications and appropriate clinical trial protocol design, particularly where there is no applicable regulatory precedent;
- delays or failures in obtaining regulatory authorization to commence a trial because of safety concerns of regulators relating to our product candidates or similar product candidates of our competitors or failure to follow regulatory guidelines;
- interruption of key clinical trial activities, such as clinical trial site monitoring, due to limitations on travel, quarantines or social distancing protocols imposed or recommended by federal or state governments, employers and others in connection with the COVID-19 pandemic;
- delays or failures in obtaining clinical materials and manufacturing sufficient quantities of the product candidate for use in trials;
- delays or failures in reaching agreement on acceptable terms with prospective study sites;
- delays or failures in obtaining approval of our clinical trial protocol from an institutional review board, known as an ethics committee in Europe, to conduct a clinical trial at a prospective study site;
- failure of our clinical trials and clinical investigators, including contract research organizations or other third parties assisting us with clinical trials, to satisfactorily perform their contractual duties, meet expected deadlines and comply with FDA and other regulatory agencies' requirements, including good clinical practices;
- unforeseen safety issues;
- inability to monitor patients adequately during or after treatment;
- difficulty monitoring multiple study sites; or
- insufficient funds to complete the trials.

In light of the evolving effects of the COVID-19 pandemic, we have taken measures to implement remote and virtual approaches, including remote data monitoring where possible, to maintain patient safety and trial continuity and to preserve study integrity. We have seen limited COVID-19-related impact to our mid- and late-stage clinical trial activity, despite delays in initiating trial sites. For example,

while we temporarily suspended two of our healthy volunteer clinical development programs, JZP-385 and JZP-324, in the interest of volunteer safety, we were able to restart these clinical trials in the third quarter of 2020 with the implementation of appropriate safety protocols. While it has not been the case thus far, we could still see an impact on the ability to supply study drug, report trial results, or interact with regulators, ethics committees or other important agencies due to limitations in regulatory authority employee resources or otherwise. In addition, we rely on contract research organizations or other third parties to assist us with clinical trials, and we cannot guarantee that they will continue to perform their contractual duties in a timely and satisfactory manner as a result of the evolving effects of the COVID-19 pandemic. If these effects become more severe, we could experience significant disruptions to our clinical development timelines, which would adversely affect our business, financial condition, results of operations and growth prospects. In addition, some patients may not be able to comply with clinical trial protocols if quarantines impede patient movement or interrupt healthcare services. Similarly, our ability to recruit and retain patients and principal investigators and site staff who, as healthcare providers, may have heightened exposure to COVID-19, may adversely impact our clinical trial operations.

Risks Related to Our Intellectual Property

It is difficult and costly to protect our proprietary rights, and we may not be able to ensure their protection.

Our commercial success depends in part on obtaining, maintaining and defending intellectual property protection for our products and product candidates, including protection of their use and methods of manufacturing and distribution. Our ability to protect our products and product candidates from unauthorized making, using, selling, offering to sell or importation by third parties depends on the extent to which we have rights under valid and enforceable patents or have adequately protected trade secrets that cover these activities.

The degree of protection to be afforded by our proprietary rights is uncertain because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep our competitive advantage. For example:

- our patent applications, or those of our licensors or partners, may not result in issued patents;
- others may independently develop similar or therapeutically equivalent products without infringing our patents, or those of our licensors, such as products that are not covered by the claims of our patents, or for which we do not have adequate exclusive rights under our license agreements;
- our issued patents, or those of our licensors or partners, may be held invalid or unenforceable as a result of legal challenges by third parties or may be vulnerable to legal challenges as a result of changes in applicable law;
- we or our licensors or partners might not have been the first to invent or file, as appropriate, subject matters covered by our issued patents or pending patent applications or those of our licensors or partners;
- competitors may manufacture products in countries where we have not applied for patent protection or that have a different scope of patent protection or that do not respect our patents; or
- others may be issued patents that prevent the sale of our products or require licensing and the payment of significant fees or royalties.

Patent enforcement generally must be sought on a country-by-country basis, and issues of patent validity and infringement may be judged differently in different countries. For example, in the EU, approval of a generic pharmaceutical product can occur independently of whether the reference brand product is covered by patents, and enforcement of such patents generally must await approval and an indication that the generic product is being offered for sale.

Changes in either the patent laws or in interpretations of patent laws in the U.S. and other countries may diminish the value of our intellectual property portfolio. Even if we are able to obtain patents covering our products and product candidates, any patent may be challenged, and potentially invalidated or held unenforceable, including through patent litigation or through patent office procedures that permit challenges to patent validity. Patents can also be circumvented, potentially including by FDA approval of an ANDA or Section 505(b)(2) application that avoids infringement of our intellectual property.

We have settled patent litigation with nine companies seeking to introduce generic versions of Xyrem in the U.S. by granting those companies licenses to launch their generic products (and in certain cases, an authorized generic version of Xyrem) in advance of the expiration of the last of our patents. Notwithstanding our Xyrem patents and settlement agreements, additional third parties may also attempt to introduce generic versions of Xyrem or other sodium oxybate products for treatment of cataplexy and/or EDS in narcolepsy that design around our patents or assert that our patents are invalid or otherwise unenforceable. Such third parties could launch a generic or 505(b)(2) product referencing Xyrem before the dates provided in our patents or settlement agreements. For example, we have several method of use patents listed in FDA's publication "Approved Drug Products with Therapeutic Equivalence Evaluations," or the Orange

Book, that expire in 2033 that cover treatment methods included in the Xyrem label related to a drug-drug interaction, or DDI, with divalproex sodium. Although FDA has stated, in granting a Citizen Petition we submitted in 2016, that it would not approve any sodium oxybate ANDA referencing Xyrem that does not include the portions of the currently approved Xyrem label related to the DDI patents, we cannot predict whether a future ANDA filer, or a company that files a Section 505(b)(2) application for a drug referencing Xyrem, may pursue regulatory strategies to avoid infringing our DDI patents notwithstanding FDA's response to the Citizen Petition, or whether any such strategy would be successful. Likewise, we cannot predict whether we will be able to maintain the validity of these patents or will otherwise obtain a judicial determination that a generic or other sodium oxybate product, its package insert or the generic sodium oxybate REMS or another separate REMS will infringe any of our patents or, if we prevail in proving infringement, whether a court will grant an injunction that prevents a future ANDA filer or other company introducing a different sodium oxybate product from marketing its product, or instead require that party to pay damages in the form of lost profits or a reasonable royalty.

Since Xyrem's regulatory exclusivity has expired in the EU, we are aware that generic or hybrid generic applications have been approved by various EU regulatory authorities, and additional generic or hybrid generic applications may be submitted and approved. We cannot predict whether our licensee in the EU will be able to enforce our existing European patents against generic or hybrid generic filers in the EU.

We also currently rely on trade secret protection for several of our products, including Erwinaze and Defitelio. Trade secret protection does not protect information or inventions if another party develops that information or invention independently, and establishing that a competitor developed a product through trade secret misappropriation rather than through legitimate means may be difficult to prove. Trade secret protection also requires that information be secret and subject to reasonable efforts to maintain secrecy, and this requirement may come into conflict with requirements to provide information to employees, consultants, business partners, and regulatory bodies. We seek to protect our trade secrets and other unpatented proprietary information in part through confidentiality and invention agreements with our employees, consultants, advisors and partners. Nevertheless, our employees, consultants, advisors and partners may unintentionally or willfully disclose our proprietary information to competitors, and we may not have adequate remedies for such disclosures. Moreover, if a dispute arises with our employees, consultants, advisors or partners over the ownership of rights to inventions, including jointly developed intellectual property, we could lose patent protection or the confidentiality of our proprietary information, and possibly also lose the ability to pursue the development of certain new products or product candidates.

We have incurred and may in the future incur substantial costs as a result of litigation or other proceedings relating to patents, other intellectual property rights and related matters, and we may be unable to protect our rights to, or commercialize, our products.

Our ability, and that of our partners, to commercialize any approved products will depend, in part, on our ability to obtain patents, enforce those patents and operate without infringing the proprietary rights of third parties. If we choose to go to court to stop a third party from infringing our patents, our licensed patents or our partners' patents, that third party has the right to ask the court or an administrative agency to rule that these patents are invalid and/or should not be enforced. These lawsuits and administrative proceedings are expensive and consume time and other resources, and we may not be successful in these proceedings or in stopping infringement. In addition, the inter partes review process, or IPR, under the Leahy-Smith America Invents Act permits any person, whether they are accused of infringing the patent at issue or not, to challenge the validity of certain patents through a proceeding before the Patent Trial and Appeal Board, or PTAB, of the U.S. Patent and Trademark Office.

There is a risk that a court or the PTAB could decide that our patents or certain claims in our patents are not valid or infringed, and that we do not have the right to stop a third party from using the inventions covered by those claims, as happened with six of our patents covering the Xywav and Xyrem REMS, which were invalidated through the IPR process and delisted from the Orange Book. In addition, even if we prevail in establishing that another product infringes a valid claim of one of our patents, a court may determine that we can be compensated for the infringement in damages, and refuse to issue an injunction. As a result, we may not be entitled to stop another party from infringing our patents for their full term.

Litigation involving patent matters is frequently settled between the parties, rather than continuing to a court ruling, and we have settled patent litigation with all nine Xyrem ANDA filers. The FTC has publicly stated that, in its view, certain types of agreements between branded and generic pharmaceutical companies related to the settlement of patent litigation or the manufacture, marketing and sale of generic versions of branded drugs violate the antitrust laws and has commenced investigations and brought actions against some companies that have entered into such agreements. In particular, the FTC has expressed its intention to take aggressive action to challenge settlements that include an alleged transfer of value from the brand company to the generic company (so-called "pay for delay" patent litigation settlements). The U.S. Congress and state legislatures have also identified pharmaceutical patent litigation settlements as potential impediments to generic competition and have introduced, and in states like California passed, legislation to regulate them. Third party payors have also challenged such settlements on the grounds that they increase drug prices. Because there is currently no precise

legal standard with respect to the lawfulness of such settlements, many pharmaceutical companies, including us, have faced extensive litigation over whether patent litigation settlements they have entered into are reasonable and lawful. From June to September 2020, a number of class action lawsuits were filed on behalf of purported direct and indirect Xyrem purchasers, alleging that the patent litigation settlement agreements we entered with Hikma and other ANDA filers violate state and federal antitrust and consumer protection laws. For additional information on these class action complaints, see Note 13, Commitments and Contingencies-Legal Proceedings of the Notes to Consolidated Financial Statements included in this Annual Report on Form 10-K. It is possible that additional lawsuits will be filed against us making similar or related allegations. We cannot predict the outcome of these or potential additional lawsuits or government actions; however, if the plaintiffs in the class action complaints were to be successful in their claims, they may be entitled to injunctive relief or we may be required to pay significant monetary damages, which could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

Parties to such settlement agreements in the U.S. are required by law to file the agreements with the FTC and the U.S. Department of Justice, or DOJ, for review. Accordingly, we have submitted our patent litigation settlement agreements to the FTC and the DOJ for review. We may receive formal or informal requests from the FTC regarding our ANDA litigation settlements, and there is a risk that the FTC may commence a formal investigation or action against us, which could divert the attention of management and cause us to incur significant costs, regardless of the outcome. Any claim or finding that we or our business partners have failed to comply with applicable laws and regulations could be costly to us and could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

A third party may claim that we or our manufacturing or commercialization partners are using inventions covered by the third party's patent rights, or that we or such partners are infringing, misappropriating or otherwise violating other intellectual property rights, and may go to court to stop us from engaging in our normal operations and activities, including making or selling our products. Such lawsuits are costly and could affect our results of operations and divert the attention of management and development personnel. There is a risk that a court could decide that we or our partners are infringing, misappropriating or otherwise violating third party patent or other intellectual property rights, which could be very costly to us and have a material adverse effect on our business. If we are sued for patent infringement, we would need to demonstrate that our products or methods do not infringe the patent claims of the relevant patent and/or that the patent claims are invalid or unenforceable, which we may not be able to do.

Other Risks Related to Our Business and Industry

Changes in the market for directors and officers liability insurance could make it more difficult and more expensive for us to obtain directors and officers liability insurance, and such insurance coverage may have reduced policy limits and coverage, may not be sufficient to cover our potential liabilities and may make it more difficult for us to attract and retain directors and officers.

In recent months, the market for directors and officers liability insurance for biopharmaceuticals and life sciences companies has changed in ways adverse to us. Fewer insurance companies are offering quotes for directors and officers liability coverage, the premiums charged for such policies have generally increased and the terms of such policies have generally become less favorable, and these trends may continue or worsen in the future. In addition, these market conditions are generally presenting more challenges for companies like ours that actively pursue corporate development transactions such as the GW Acquisition and that experience regular share price volatility, including volatility that may be unrelated or disproportionate to our operating performance. As a result, it is currently expensive and may become significantly more expensive for us to maintain directors and officers liability insurance, and we may be required to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. In any event, there can be no assurance that directors and officers liability insurance will be adequate to cover our potential liabilities or will be generally available to us in the future or, if available, that the cost of such insurance will be commercially justifiable. The increased cost and decreased availability of directors and officers liability insurance could make it more difficult for us to attract and retain qualified persons to serve on our board of directors or as executive officers, and could also make it more difficult and more expensive for us to negotiate and consummate future corporate development transactions, all of which could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

Our business is currently adversely affected and could be materially and adversely affected in the future by the evolving effects of the COVID-19 pandemic and related global economic slowdown as a result of the current and potential future impacts on our commercialization efforts, clinical trial activity, research and development activities, supply chain and corporate development activities and other business operations, in addition to the impact of a global economic slowdown.

The COVID-19 pandemic continues to have a significant impact on the global healthcare delivery system. Many healthcare systems have had to restructure operations to prioritize caring for COVID-19 patients and limit or cease other activities. The severe burden on healthcare systems caused by this pandemic has impaired the ability to diagnose and treat patients with non-COVID-19 related conditions

and impaired the ability of many clinical research sites to start new studies, enroll new patients and monitor patients in clinical trials. The evolving effects of the COVID-19 pandemic and government measures taken in response have had a significant impact, both direct and indirect, on businesses and commerce, as significant reductions in business related activities have occurred, supply chains have been disrupted, and manufacturing and clinical development activities have been curtailed or suspended.

Continued remote work policies, quarantines, shelter-in-place and similar government orders, shutdowns or other restrictions on the conduct of business operations related to the effects of the COVID-19 pandemic may materially and adversely affect our business, our ability to generate sales of and revenues from our approved products, our supply chain, regulatory, clinical development and corporate development activities. With respect to our commercialization activities, the evolving effects of the COVID-19 pandemic continue to have a negative impact on demand, new patient starts and treatments for our products, primarily due to the inherent limitations of telemedicine and a reprioritization of healthcare resources toward COVID-19. Due to the nature of the pandemic, we are not able to accurately predict the duration or extent of these impacts on demand for our products. Beginning in March 2020, we transitioned our field-based sales, market access, reimbursement and medical employees out of the field and suspended work-related travel and in-person customer interactions. We utilized technology to continue to engage healthcare professionals and other customers virtually to support patient care. In late June 2020, as clinics and institutions began to allow in-person interactions pursuant to local health authority and government guidelines, our field teams resumed in-person interactions with healthcare professionals and clinics combined with virtual engagement. The level of renewed engagement varies by account, region and country and may be adversely impacted in the future as a result of the continuing impact of the COVID-19 pandemic.

For Xyrem and Xywav, COVID-19 protocols and staffing shortages at sleep labs across the U.S. have resulted in reduced access to sleep testing. Since the end of the first quarter of 2020, we have seen a decline in prescribers' ability to diagnose new narcolepsy patients and a related overall decline in new patients starting on therapy. Although patient persistence and compliance with oxybate therapy have increased during 2020, we continue to expect that delays in obtaining a narcolepsy diagnosis will have a negative impact on new Xyrem and Xywav patient enrollments in future quarters. For Sunosi, the impact on demand has been primarily related to the reduced ability of our field-based teams to interact with prescribers and patients' inability to meet with healthcare providers during this time. As a result, we have seen slower than expected growth of Sunosi prescribers and new patient starts in the U.S. We also anticipate that pricing and reimbursement reviews by certain European regulatory authorities may take longer in certain countries due to the pandemic, which could delay our rolling Sunosi launch in those EU member states. In addition, due to the ongoing impacts of the COVID-19 pandemic, we continue to expect a negative impact on demand for and utilization of Defitelio and Vyxeos.

We have also seen an upward trend in demand for patient assistance programs since the end of the first quarter of 2020. In this regard, total net product sales of Xywav for the year ended December 31, 2020 were offset by the cost of launch related co-pay coupons and a free product program for qualified patients. Depending on the ultimate duration and severity of the COVID-19 pandemic and the extent of a global economic slowdown, widespread unemployment and resulting loss of employer-sponsored insurance coverage, we may experience an increasing shift from commercial payor coverage to government payor coverage or increasing demand for patient assistance and/or free drug programs, which could continue to adversely affect net product sales.

In addition, the COVID-19 pandemic continues to rapidly evolve and has resulted in significant volatility in the global financial markets. If this volatility persists and deepens, we could experience an inability to access additional capital or an impact on liquidity, which could in the future negatively affect our capacity for certain corporate development transactions or our ability to make other important, opportunistic investments. In addition, the current recession or additional market corrections resulting from the impact of the evolving effects of the COVID-19 pandemic could materially affect our business and the value of our ordinary shares. While we expect these effects to adversely affect our business operations and financial results, the extent of the impact on our ability to generate sales of and revenues from our approved products, execute on new product launches, our clinical development and regulatory efforts, our corporate development objectives and the value of and market for our ordinary shares, will depend on future developments that are highly uncertain and cannot be predicted with confidence at this time, such as the ultimate duration and severity of the pandemic, governmental "stay-at-home" orders and travel restrictions, quarantines, social distancing and business closure requirements in the U.S., Ireland and other countries, and the effectiveness of actions taken globally to contain and treat the disease, including the effectiveness and timing of vaccination programs in the U.S. and worldwide. For example, the inability of our workforce to return to office and field-based work and the ongoing stress and reprioritization within the healthcare systems in our key markets may require us to reassess the timing and scope of key business activities for the remainder of 2021, including with respect to our ability to continue the launch momentum for Sunosi, Xywav and Zepzelca. These effects could materially and adversely affect our business, financial condition, results of operations and growth prospects, as further described in the risks and uncertainties described elsewhere in this ''Risk Factors'' section.

We have substantially expanded our international footprint and operations, and we may expand further in the future, which subjects us to a variety of risks and complexities which, if not effectively managed, could negatively affect our business.

We are headquartered in Dublin, Ireland and have multiple offices in the U.S., Canada, the UK, Italy and other countries in Europe and an affiliate in Australia. We may further expand our international operations into other countries in the future, either organically or by acquisition. Conducting our business in multiple countries subjects us to a variety of risks and complexities that may materially and adversely affect our business, results of operations, financial condition and growth prospects, including:

- the diverse regulatory, financial and legal requirements in the countries where we are located or do business, and any changes to those requirements;
- the impact of Brexit on trade relations between the EU and the UK;
- challenges inherent in efficiently managing employees in diverse geographies, including the need to adapt systems, policies, benefits and compliance programs to differing labor and employment law and other regulations, as well as maintaining positive interactions with our unionized employees;
- costs of, and liabilities for, our international operations, products or product candidates; and
- public health risks, such as the COVID-19 pandemic and potential related effects on supply chain, travel and employee health and availability.

In addition, there can be no guarantee that we will effectively manage the increasing, global complexity of our business without experiencing operating inefficiencies or control deficiencies. Our failure to do so could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

The UK's withdrawal from the EU, commonly referred to as Brexit, could increase our cost of doing business, reduce our gross margins or otherwise negatively impact our business and our financial results.

Brexit will continue to create significant uncertainty concerning the future relationship between the UK and the EU, following the UK withdrawal from the EU in January 2020. Since a significant portion of the regulatory framework in the UK is derived from EU laws, Brexit materially impacts the regulatory regime with respect to the development, manufacture, importation, approval and commercialization of our product candidates in the UK or the EU. In this regard, in December 2020, the EU and UK reached an agreement in principle on the framework for their future relationship, the EU-UK Trade and Cooperation Agreement, or TCA. The TCA primarily focuses on ensuring free trade between the EU and the UK in relation to goods, including medicinal products. Although the body of the TCA includes general terms which apply to medicinal products, greater detail on sector-specific issues is provided in an Annex to the TCA. The Annex provides a framework for the recognition of Good Manufacturing Practice, or GMP, inspections and for the exchange and acceptance of official GMP documents. The regime does not, however, extended to procedures such as batch release certification. Among the changes that will now occur are that Great Britain (England, Scotland and Wales) will be treated as a third country. Northern Ireland will, with regard to EU regulations, continue to follow the EU regulatory rules. As part of the TCA, the EU and the UK will recognize GMP inspections carried out by the other party and the acceptance of official GMP documents issued by the other party. The TCA also encourages, although it does not oblige, the parties to consult one another on proposals to introduce significant changes to technical regulations or inspection procedures. Among the areas of absence of mutual recognition are batch testing and batch release. The UK has unilaterally agreed to accept EU batch testing and batch release for a period of at least 2 years until January 1, 2023. However, the EU continues to apply EU laws that require batch testing and batch release to take place in the EU territory. This means that medicinal products that are tested and released in the UK must be retested and re-released when entering the EU market for commercial use. As it relates to marketing authorizations, Great Britain will have a separate regulatory submission process, approval process and a separate national marketing authorization. Northern Ireland will, however, continue to be covered by the marketing authorizations granted by the EC. For example, the scope of a marketing authorization for a medicinal product granted by the EC or by the competent authorities of EU member states will no longer encompass Great Britain (England, Scotland and Wales). In these circumstances, a separate marketing authorization granted by the UK competent authorities will be required to place medicinal products on the market in Great Britain. Northern Ireland will, however, continue to be covered by the marketing authorizations granted by the EC. All of these changes could increase our costs and otherwise adversely affect our business.

We have an office in Oxford, England, which is focused on commercialization of our products outside of the U.S. We do not know to what extent, or when, the UK's withdrawal from the EU will impact our business, particularly our ability to conduct international business from a base of operations in the UK. The UK could lose the benefits of global trade agreements negotiated by the EU on behalf of its member states, possibly resulting in increased trade barriers, which could make doing business in Europe more difficult and/or costly. Moreover, in the U.S., tariffs on certain U.S. imports have been imposed, and the EU and other countries have responded with retaliatory tariffs on certain U.S. exports. We cannot predict what effects these and potential additional tariffs will have on our business, including in

the context of escalating global trade and political tensions. However, these tariffs and other trade restrictions, whether resulting from the UK's withdrawal from the EU or otherwise, could increase our cost of doing business, reduce our gross margins or otherwise negatively impact our business and our financial results.

Significant disruptions of information technology systems or data security breaches could adversely affect our business.

In the ordinary course of our business, we collect, store, process and transmit large amounts of confidential information, including intellectual property, proprietary business information and personal data. We have also outsourced some of our operations (including parts of our information technology infrastructure) to a number of third party vendors who may have, or could gain, access to our confidential information. In addition, many of those third parties, in turn, subcontract or outsource some of their responsibilities to third parties.

Our information technology systems, and those of our vendors, are large and complex and store large amounts of confidential information. The size and complexity of these systems make them potentially vulnerable to service interruptions or to security breaches from inadvertent or intentional actions by our employees, third party vendors and/or business partners, or from cyber-attacks by malicious third parties. Attacks of this nature are increasing in frequency, persistence, sophistication and intensity, and are being conducted by sophisticated and organized groups and individuals with a wide range of motives (including, but not limited to, industrial espionage) and expertise, including organized criminal groups, "hacktivists," nation states and others. In addition to the extraction of important information, such attacks could include the deployment of harmful malware, ransomware, denial-of-service attacks, social engineering and other means to affect service reliability and threaten the confidentiality, integrity and availability of our information. Although the aggregate impact on our operations and financial condition has not been material to date, we and our vendors have been the target of events of this nature and expect them to continue.

Significant disruptions of our, our third party vendors' and/or business partners' information technology systems or security breaches, including in our remote work environment as a result of the COVID-19 pandemic, could adversely affect our business operations and/or result in the loss, misappropriation, and/or unauthorized access, use or disclosure of, or the prevention of access to, confidential information (including trade secrets or other intellectual property, proprietary business information and personal data), and could result in financial, legal, business and reputational harm to us. Any such event that leads to unauthorized access, use or disclosure of personal data, including personal data regarding our patients or employees, could harm our reputation, compel us to comply with federal and/or state breach notification laws and foreign law equivalents, subject us to mandatory corrective action, require us to verify the correctness of database contents and otherwise subject us to liability under laws and regulations that protect the privacy and security of personal data. This could disrupt our business, result in increased costs or loss of revenue, and/or result in significant legal and financial exposure. In addition, security breaches and other inappropriate access can be difficult to detect, and any delay in identifying them may further harm us. Moreover, the prevalent use of mobile devices to access confidential information increases the risk of security breaches. While we have implemented security measures to protect our information technology systems and infrastructure, there can be no assurance that such measures will prevent service interruptions or security breaches that could adversely affect our business. In addition, failure to maintain effective internal accounting controls related to security breaches and cybersecurity in general could impact our ability to produce timely and accurate financial statements and subject us to regulatory scrutiny.

We are subject to significant ongoing regulatory obligations and oversight, which may result in significant additional expense and limit our ability to commercialize our products.

FDA and Equivalent Non-U.S. Regulatory Authorities

Our activities are subject to extensive regulation encompassing the entire life cycle of our products, from research and development activities to marketing approval (including specific post-marketing obligations), manufacturing, labeling, packaging, adverse event and safety reporting, storage, advertising, promotion, sale, pricing and reimbursement, recordkeeping, distribution, importing and exporting. The failure by us or any of our third party partners, including our corporate development and collaboration partners, clinical trial sites, suppliers, distributors and our central pharmacy for Xyrem and Xywav, to comply with applicable requirements could subject us to administrative or judicial sanctions or other negative consequences, such as delays in approval or refusal to approve a product candidate, restrictions on our products, our suppliers, our other partners or us, the withdrawal, suspension or variation of product approval or manufacturing authorizations, untitled letters, warning letters, fines and other monetary penalties, unanticipated expenditures, product recall, withdrawal or seizure, total or partial suspension of production or distribution, interruption of manufacturing or clinical trials, operating restrictions, injunctions, suspension of licenses, civil penalties and/or criminal prosecution, any of which could result in a significant drop in our revenues from the affected products and harm to our reputation and could have a significant impact on our sales, business and financial condition.

We monitor adverse events resulting from the use of our products, as do the regulatory authorities, and we file periodic reports with the authorities concerning adverse events. The authorities review these events and reports, and if they determine that any events and/or

reports indicate a trend or signal, they can require a change in a product label, restrict sales and marketing and/or require conduct or other actions, potentially including variation, withdrawal or suspension of the marketing authorization, any of which could result in reduced market acceptance and demand for our products, could harm our reputation and our ability to market our products in the future, and could have a material adverse effect on our business, financial condition, results of operations and growth prospects. FDA, the competent authorities of the EU member states on behalf of the EMA, and the competent authorities of other European countries, also periodically inspect our records related to safety reporting. The EMA's Pharmacovigilance Risk Assessment Committee may propose to the Committee for Medicinal Products for Human Use that the marketing authorization holder be required to take specific steps or advise that the existing marketing authorization be varied, suspended or revoked. Failure to adequately and promptly correct the observation(s) can result in further regulatory enforcement action, which could include the variation, suspension or withdrawal of marketing authorization or imposition of financial penalties or other enforcement measures.

Erwinaze, defibrotide and Vyxeos are available on a named patient basis or through a compassionate use process in many countries where they are not commercially available. If any such country's regulatory authorities determine that we are promoting such products without proper authorization, we could be found to be in violation of pharmaceutical advertising laws or the regulations permitting sales under named patient programs. In that case, we may be subject to financial or other penalties. Any failure to maintain revenues from sales of Erwinaze, defibrotide and/or Vyxeos on a named patient basis and/or to generate revenues from commercial sales of these products exceeding historical sales on a named patient basis could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

FDA, the competent authorities of the EU member states and other European countries, and other governmental authorities require advertising and promotional materials to be truthful and not misleading, and products to be marketed only for their approved indications and in accordance with the provisions of the approved label. Regulatory authorities actively investigate allegations of off-label promotion in order to enforce regulations prohibiting these types of activities. A determination that we have promoted an approved product for off-label uses could subject us to significant liability, including civil and administrative financial penalties and other remedies as well as criminal financial penalties, other sanctions and imprisonment. Even if we are not determined to have engaged in off-label promotion, an allegation that we have engaged in such activities could have a significant impact on our sales, business and financial condition. The U.S. government has also required companies to enter into complex corporate integrity agreements and/or non-prosecution agreements that impose significant reporting and other burdens on the affected companies. Failure to maintain a comprehensive and effective compliance program, and to integrate the operations of acquired businesses into a combined comprehensive and effective compliance program on a timely basis, could subject us to a range of regulatory actions and/or civil or criminal penalties that could affect our ability to commercialize our products and could harm or prevent sales of the affected products, or could substantially increase the costs and expenses of commercializing and marketing our products.

Other Regulatory Authorities

We are also subject to regulation by other regional, national, state and local agencies, including the DEA, the DOJ, the FTC, the United States Department of Commerce, the Office of Inspector General of the U.S. Department of Health and Human Services, or OIG, and other regulatory bodies, as well as similar governmental authorities in those non-U.S. countries in which we commercialize our products.

We are subject to numerous fraud and abuse laws and regulations globally and our sales, marketing, patient support and medical activities may be subject to scrutiny under these laws and regulations. These laws are described in "Business—Government Regulation" in Part I, Item 1 of this Annual Report on Form 10-K. While we maintain a comprehensive compliance program to try to ensure that our practices and the activities of our third-party contractors and employees fall within the scope of available statutory exceptions and regulatory safe harbors whenever possible, and otherwise comply with applicable laws, regulations or guidance, regulators and enforcement agencies may disagree with our assessment or find fault with the conduct of our employees or contractors. In addition, existing regulations are subject to regulatory revision or changes in interpretation by the DOJ or OIG. For example, in November 2020, the U.S. Department of Health and Human Services finalized a previously abandoned proposal to amend the discount safe harbor regulation of the federal anti-kickback statute in a purported effort to create incentives to manufacturers to lower their list prices, and to lower federal program beneficiary out-of-pocket costs. The rule, which takes full effect January 1, 2022, revises the discount safe harbor to exclude manufacturer rebates to Medicare Part D plans, either directly or through PBMs, creates a new safe harbor for point-of-sale price reductions that are set in advance and are available to the beneficiary at the point-of-sale, and creates a new safe harbor for service fees paid by manufacturers to PBMs for services rendered to the manufacturer. It is too early to know what the effect of the rule will be on negotiations of coverage for our products with Medicare Part D plans, or whether the rule will affect our coverage arrangements with commercial insurers. It is also unclear whether the rule will have the intended effect of reducing net prices and beneficiary out-of-pocket costs without also increasing Medicare Part D premiums, which may impact the willingness of Part D plans to cover our products and the price concessions or other terms the plans or their PBMs may seek from us.

Many companies have faced government investigations or lawsuits by whistleblowers who bring a *qui tam* action under the False Claims Act on behalf of themselves and the government for a variety of alleged improper marketing activities, including providing free product to customers expecting that the customers would bill federal programs for the product, providing consulting fees, grants, free travel and other benefits to physicians to induce them to prescribe the company's products, and inflating prices reported to private price publication services, which are used to set drug reimbursement rates under government healthcare programs. In addition, the government and private whistleblowers have pursued False Claims Act cases against pharmaceutical companies for causing false claims to be submitted as a result of the marketing of their products for unapproved uses or violations of the federal anti-kickback statute. If we become the subject of a government False Claims Act or other investigation or whistleblower suit, we could incur substantial legal costs (including settlement costs) and business disruption responding to such investigation or suit, regardless of the outcome.

Public reporting under the Physician Payment Sunshine Act, or Sunshine provisions, and other similar state laws, the requirements of which are discussed in "Business—Government Regulation" in Part I, Item 1 of this Annual Report on Form 10-K, has resulted in increased scrutiny of the financial relationships between industry, teaching hospitals, physicians and other healthcare providers. Such scrutiny may negatively impact our ability to engage with physicians and other health care providers on matters of importance to us. In addition, government agencies and private entities may inquire about our marketing practices or pursue other enforcement activities based on the disclosures in those public reports. If the data reflected in our reports are found to be in violation of any of the Sunshine provisions or any other U.S. federal, state or local laws or regulations that may apply, or if we otherwise fail to comply with the Sunshine provisions or similar requirements of state or local regulators, we may be subject to significant civil, and administrative penalties, damages or fines.

We have various programs to help patients access our products, including patient assistance programs, which include co-pay coupons for certain of our products, assistance to help patients determine their insurance coverage for our products, and a free product program. Co-pay coupon programs for commercially insured patients, including our program for Xyrem, have received negative publicity related to allegations regarding their use to promote branded pharmaceutical products over other less costly alternatives, and some states have imposed restrictions on manufacturer co-pay programs when therapeutic equivalents are available. In September 2014, the OIG issued a Special Advisory Bulletin warning manufacturers that they may be subject to sanctions under the federal Anti-Kickback Statute and other laws if they do not take appropriate steps to exclude Medicare Part D beneficiaries from using co-pay coupons. It is possible that changes in insurer policies regarding co-pay coupons and/or the introduction and enactment of new legislation or regulatory action could restrict or otherwise negatively affect these patient support programs, which could result in fewer patients using affected products, including Xyrem, and therefore could have a material adverse effect on our sales, business and financial condition.

We have established programs to consider grant applications submitted by independent charitable organizations, including organizations that provide co-pay support to patients who suffer from the diseases treated by our drugs. The OIG has issued guidance for how pharmaceutical manufacturers can lawfully make donations to charitable organizations who provide co-pay assistance to Medicare patients, provided that such organizations, among other things, are *bona fide* charities, are entirely independent of and not controlled by the manufacturer, provide aid to applicants on a first-come basis according to consistent financial criteria, and do not link aid to use of a donor's product. In April 2019, we finalized our civil settlement agreement with the DOJ and OIG and entered into a corporate integrity agreement requiring us to maintain our ongoing corporate compliance program and obligating us to implement or continue, as applicable, a set of defined corporate integrity activities for a period of five years from the effective date of the corporate integrity agreement. Although we have structured our programs to follow available guidance and the requirements of our corporate integrity agreement, if we or our vendors or donation recipients are deemed to fail to comply with relevant laws, regulations or evolving government guidance in the operation of these programs, such facts could be used as the basis for an enforcement action against us by the federal government or other enforcement agencies or private litigants, or we could become liable for payment of certain stipulated penalties or could be excluded from participation in federal health care programs, which would have a material adverse effect on our sales, business and financial condition.

We may also become subject to similar investigations by other state or federal governmental agencies or offices of our patient assistance programs or other business practices, which could result in damages, fines, penalties, exclusion from participation in federal health care programs or other criminal, civil or administrative sanctions or enforcement actions, as well as negative publicity, reduction in demand for, or patient access to, our products and/or reduce coverage of our products, including by federal and state health care programs. If any or all of these events occur, our business, financial condition, results of operations and stock price could be materially and adversely affected.

Our business activities outside of the U.S. are subject to the U.S. Foreign Corrupt Practices Act, or FCPA, and similar anti-bribery or anti-corruption laws, regulations or rules of other countries in which we operate, including the UK Bribery Act of 2010, or the UK Bribery Act. In certain countries, the health care providers who prescribe pharmaceuticals are employed by their government and the purchasers of pharmaceuticals are government entities; therefore, our dealings with these prescribers and purchasers may be subject to regulation under

the FCPA and the UK Bribery Act. Recently the U.S. Securities and Exchange Commission and the DOJ have increased their FCPA enforcement activities with respect to pharmaceutical companies. Violation of these laws by us or our suppliers and other third party agents for which we may be liable may result in civil or criminal sanctions, which could include monetary fines, criminal penalties, and disgorgement of past profits, which could have a material adverse impact on our business and financial condition.

Outside the U.S., interactions between pharmaceutical companies and physicians are also governed by strict laws, such as national anti-bribery laws of European countries, national sunshine rules, regulations, industry self-regulation codes of conduct and physicians' codes of professional conduct. Failure to comply with these requirements could result in reputational risk, public reprimands, administrative penalties, fines or imprisonment.

Xyrem, Sunosi and Xywav are controlled substances under the Controlled Substances Act. Our suppliers, distributors, clinical sites and prescribers, as well as retail pharmacies for Sunosi and the central pharmacy for Xyrem and Xywav, are subject to DEA and state regulations relating to manufacturing, storage, distribution and physician prescription procedures, including limitations on prescription refills, and are required to maintain DEA registration and state licenses, when handling these drugs and their APIs. The DEA periodically inspects facilities for compliance with its rules and regulations. Failure to comply with current and future regulations of the DEA, relevant state authorities or any comparable international requirements could lead to a variety of sanctions, including revocation or denial of renewal of DEA registrations, fines, injunctions, or civil or criminal penalties, could result in, among other things, additional operating costs to us or delays in shipments outside or into the U.S. and could have an adverse effect on our business and financial condition.

We are also subject to federal, state and international laws and regulations governing the privacy and security of the personal data we collect and maintain (e.g., Section 5 of the Federal Trade Commission Act, the California Consumer Privacy Act, or CCPA, and the EU's General Data Protection Regulation, or GDPR). These laws and regulations are evolving and subject to interpretation, and may impose limitations on our activities or otherwise adversely affect our business. Because of the remote work policies we implemented due to the COVID-19 pandemic, information that is normally protected, including company confidential information, may be less secure. Cybersecurity and data security threats continue to evolve and raise the risk of an incident that could affect our operations or compromise our business information or sensitive personal data, including health data. We may also need to collect more extensive health-related information from our employees to manage our workforce. If we or our third party partners fail to comply or are alleged to have failed to comply with applicable data protection and privacy laws and regulations, and related employment rules, or if we were to experience a data breach involving personal data, we could be subject to government enforcement actions or private lawsuits. In addition, our business could be adversely impacted if our ability to transfer personal data outside of the European Economic Area or Switzerland is restricted, which could adversely impact our operating results. For example, in July 2020, the Court of Justice of the European Union, or the Court of Justice, declared the Privacy Shield Decision (Decision 2018/1250) invalid, which could adversely impact our ability to transfer personal data from the EU to the U.S. The Court of Justice further ruled that in order to transfer data outside of the EU, under the existing mechanism known as the Standard Contractual Clauses, or SCCs, the importing country's level of protection must be adequate. In addition, on September 8, 2020 the Federal Data Protection and Information Commissioner, or FDPIC, of Switzerland issued an opinion concluding that the Swiss-U.S. Privacy Shield Framework does not provide an adequate level of protection for data transfers from Switzerland to the United States. The FDPIC also found that SCCs may still be legally adequate at an individual level provided that they can pass a risk assessment conducted by the FDPIC. If the level of protection in the U.S. or any other importing country is called into question under the SCCs, this could further impact our ability to transfer data outside of the EU or Switzerland.

In addition, although we are not directly subject to privacy and security requirements under the Health Insurance Portability and Accountability Act of 1996 and its implementing regulations, or HIPAA, other than with respect to providing certain employee benefits, we potentially could be subject to criminal penalties if we, our affiliates or our agents knowingly obtain or disclose individually identifiable health information maintained by a HIPAA-covered entity in a manner that is not authorized or permitted by HIPAA. We also may obtain health information from third parties (including research institutions from which we obtain clinical trial data) that are subject to privacy and security requirements under HIPAA.

In addition, numerous other federal, state and international laws and regulations govern the privacy and security of the personal data we collect and maintain, including data breach notification laws, state health information and/or genetic privacy laws, federal and state consumer protection laws (e.g., Section 5 of the Federal Trade Commission Act, and CCPA), and laws outside of the United States that may apply to us, such as the GDPR and other country laws. Many of these laws and regimes, across countries but even within the United States across states, differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts. Compliance with these laws is difficult, constantly evolving, and time consuming. International regulators, federal regulators, state attorneys general, and plaintiffs' attorneys, including class action attorneys, have been and will likely continue to be active in this space.

In California, the CCPA took effect on January 1, 2020. The CCPA establishes certain requirements for data use and sharing transparency and creates new data privacy rights for consumers. These laws and regulations are evolving and subject to interpretation, and may impose limitations on our activities or otherwise adversely affect our business. Similarly, there are a number of legislative proposals in the European Union, the United States, at both the federal and state level, as well as other jurisdictions that could impose new obligations or limitations in areas affecting our business. In addition, some countries are considering or have passed legislation implementing data protection or privacy requirements or requiring local storage and processing of data or similar requirements that could increase the cost and complexity of delivering our services and research activities.

If we or our third party partners fail to comply or are alleged to have failed to comply with these or other applicable data protection and privacy laws and regulations, or if we were to experience a data breach involving personal data, we could be subject to government enforcement actions or private lawsuits. Any associated claims, inquiries, or investigations or other government actions could lead to unfavorable outcomes that have a material impact on our business including through significant penalties or fines, monetary judgments or settlements including criminal and civil liability for us and our officers and directors, increased compliance costs, delays or impediments in the development of new products, negative publicity, increased operating costs, diversion of management time and attention, or other remedies that harm our business, including orders that we modify or cease existing business practices.

If we fail to comply with our reporting and payment obligations under the Medicaid Drug Rebate program or other governmental pricing programs, we could be subject to additional reimbursement requirements, penalties, sanctions and fines, which could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

We participate in the Medicaid Drug Rebate program, the 340B program, the U.S. Department of Veterans Affairs, Federal Supply Schedule, or FSS, pricing program, and the Tricare Retail Pharmacy program, and have obligations to report the average sales price for certain of our drugs to the Medicare program. All of these programs are described in more detail under the heading "Business—Pharmaceutical Pricing, Reimbursement by Government and Private Payors and Patient Access" in Part I, Item 1 of this Annual Report on Form 10-K.

Pricing and rebate calculations vary across products and programs, are complex, and are often subject to interpretation by us, governmental or regulatory agencies and the courts, which can change and evolve over time. In the case of our Medicaid pricing data, if we become aware that our reporting for a prior quarter was incorrect, or has changed as a result of recalculation of the pricing data, we are obligated to resubmit the corrected data for up to three years after those data originally were due. Such restatements and recalculations increase our costs for complying with the laws and regulations governing the Medicaid Drug Rebate program and could result in an overage or underage in our rebate liability for past quarters. Price recalculations also may affect the ceiling price at which we are required to offer our products under the 340B program.

Civil monetary penalties can be applied if we are found to have knowingly submitted any false price or product information to the government, if we are found to have made a misrepresentation in the reporting of our average sales price, if we fail to submit the required price data on a timely basis, or if we are found to have charged 340B covered entities more than the statutorily mandated ceiling price. The Centers for Medicare and Medicaid Services, or CMS, could also decide to terminate our Medicaid drug rebate agreement, in which case federal payments may not be available under Medicaid or Medicare Part B for our covered outpatient drugs. We cannot assure you that our submissions will not be found by CMS to be incomplete or incorrect.

Our failure to comply with our reporting and payment obligations under the Medicaid Drug Rebate program and other governmental programs could negatively impact our financial results. CMS issued a final regulation, which became effective on April 1, 2016, to implement the changes to the Medicaid Drug Rebate program under the Healthcare Reform Act. On December 21, 2020, CMS issued a final regulation that modified prior Medicaid Drug Rebate program regulations to permit reporting multiple best price figures with regard to value-based purchasing arrangements (beginning in 2022); provide definitions for "line extension," "new formulation," and related terms, with the practical effect of expanding the scope of drugs considered to be line extensions that are subject to an alternative rebate formula (beginning in 2022); and revise best price and average manufacturer price exclusions of manufacturer-sponsored patient benefit programs, specifically regarding applicability of such exclusions in the context of pharmacy benefit manager "accumulator" programs (beginning in 2023). It is currently unclear whether the Biden administration will delay or suspend implementation of this final rule. The issuance of the final regulation, as well as any other regulations and coverage expansion by various governmental agencies relating to the Medicaid Drug Rebate program, has increased and will continue to increase our costs and the complexity of compliance, has been and will continue to be time-consuming to implement, and could have a material adverse effect on our results of operations, particularly if CMS challenges the approach we take in our implementation of the final regulation.

The Health Resources and Services Administration, or HRSA, issued a final regulation regarding the calculation of the 340B ceiling price and the imposition of civil monetary penalties on manufacturers that knowingly and intentionally overcharge covered entities, which became effective on January 1, 2019. Implementation of this regulation could affect our obligations and potential liability under the 340B program in ways we cannot anticipate. We are also required to report the 340B ceiling prices for our covered outpatient drugs to HRSA, which then publishes them to 340B covered entities. Any charge by HRSA that we have violated the requirements of the program or the regulation could negatively impact our financial results. Moreover, HRSA newly established an administrative dispute resolution, or ADR, process under a final regulation effective January 13, 2021, for claims by covered entities that a manufacturer engaged in overcharging, and by manufacturers that a covered entity violated the prohibitions against diversion or duplicate discounts. Such claims are to be resolved through an ADR panel of government officials rendering a decision that could be appealed only in federal court. An ADR proceeding could potentially subject us to discovery by covered entities and other onerous procedural requirements and could result in additional liability.

Further, legislation may be introduced that, if passed, would further expand the 340B program to additional covered entities or would require participating manufacturers to agree to provide 340B discounted pricing on drugs used in an inpatient setting, and any additional future changes to the definition of average manufacturer price and the Medicaid rebate amount under the Healthcare Reform Act or otherwise could affect our 340B ceiling price calculations and negatively impact our results of operations.

We have obligations to report the average sales price for certain of our drugs to the Medicare program. Statutory or regulatory changes or CMS guidance could affect the average sales price calculations for our products and the resulting Medicare payment rate, and could negatively impact our results of operations.

Pursuant to applicable law, knowing provision of false information in connection with price reporting under the U.S. Department of Veterans Affairs, FSS or Tricare Retail Pharmacy, or Tricare, programs can subject a manufacturer to civil monetary penalties. These program obligations also contain extensive disclosure and certification requirements. If we overcharge the government in connection with our arrangements with FSS or Tricare, we are required to refund the difference to the government. Failure to make necessary disclosures and/or to identify contract overcharges can result in allegations against us under the False Claims Act and other laws and regulations. Unexpected refunds to the government, and responding to a government investigation or enforcement action, would be expensive and time-consuming, and could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

Product liability and product recalls could harm our business.

The development, manufacture, testing, marketing and sale of pharmaceutical products are associated with significant risks of product liability claims or recalls. Side effects or adverse events known or reported to be associated with, or manufacturing defects in, the products sold by us could exacerbate a patient's condition, or could result in serious injury or impairment or even death. This could result in product liability claims against us and/or recalls of one or more of our products. In many countries, including in EU member states, national laws provide for strict (no-fault) liability which applies even where damages are caused both by a defect in a product and by the act or omission of a third party.

Product recalls may be issued at our discretion or at the discretion of our suppliers, government agencies and other entities that have regulatory authority for pharmaceutical sales. Any recall of our products could materially adversely affect our business by rendering us unable to sell that product for some time and by adversely affecting our reputation. A recall could also result in product liability claims by individuals and third party payors. In addition, product liability claims could result in an investigation of the safety or efficacy of our products, our manufacturing processes and facilities, or our marketing programs conducted by FDA, the EMA or the competent authorities of the EU member states. Such investigations could also potentially lead to a recall of our products or more serious enforcement actions, limitations on the therapeutic indications for which they may be used, or suspension, variation, or withdrawal of approval. Any such regulatory action by FDA, the EC or the competent authorities of the EU member states could lead to product liability lawsuits as well.

Product liability insurance coverage is expensive, can be difficult to obtain and may not be available in the future on acceptable terms, or at all. Our product liability insurance may not cover all of the future liabilities we might incur in connection with the development, manufacture or sale of our products. A successful claim or claims brought against us in excess of available insurance coverage could subject us to significant liabilities and could have a material adverse effect on our business, financial condition, results of operations and growth prospects. Such claims could also harm our reputation and the reputation of our products, adversely affecting our ability to market our products successfully.

We use hazardous materials in our manufacturing facilities, and any claims relating to the improper handling, storage, release or disposal of these materials could be time-consuming and expensive.

Our operations are subject to complex and increasingly stringent environmental, health and safety laws and regulations in the countries where we operate and, in particular, in Italy and Ireland where we have manufacturing facilities. If an accident or contamination involving pollutants or hazardous substances occurs, an injured party could seek to hold us liable for any damages that result and any liability could exceed the limits or fall outside the coverage of our insurance. We may not be able to maintain insurance with sufficient coverage on acceptable terms, or at all. Costs, damages and/or fines may result from the presence, investigation and remediation of such contamination at properties currently or formerly owned, leased or operated by us or at off-site locations, including where we have arranged for the disposal of hazardous substances or waste. In addition, we may be subject to third party claims, including for natural resource damages, personal injury and property damage, in connection with such contamination.

Risks Related to Our Financial Condition and Results

We have incurred substantial debt, which could impair our flexibility and access to capital and adversely affect our financial position, and our business would be adversely affected if we are unable to service our debt obligations.

As of December 31, 2020, we had total indebtedness of approximately $2.4 billion. Our substantial indebtedness may:

- limit our ability to borrow additional funds for working capital, capital expenditures, acquisitions or other general business purposes;
- limit our ability to use our cash flow or obtain additional financing for working capital, capital expenditures, acquisitions, investments or other general business purposes;
- require us to use a substantial portion of our cash flow from operations to make debt service payments;
- limit our flexibility to plan for, or react to, changes in our business and industry, or our ability to take specified actions to take advantage of certain business opportunities that may be presented to us;
- result in dilution to our existing shareholders in the event exchanges of our exchangeable senior notes are settled in our ordinary shares;
- place us at a competitive disadvantage compared to our less leveraged competitors; and
- increase our vulnerability to the impact of adverse economic and industry conditions.

If our cash flows and capital resources are insufficient to fund our debt service obligations, we may be forced to reduce or delay investments and capital expenditures, seek additional capital or restructure or refinance our debt. These alternative measures may not be successful and may not permit us to meet our debt service obligations. In the absence of such cash flows and resources, we could face substantial liquidity problems and might be required to dispose of material assets or operations to meet our debt service and other obligations. In addition, if we are unable to repay amounts under our secured credit agreement that we entered into in June 2015 and subsequently amended, which we refer to as the amended credit agreement, the lenders under the amended credit agreement could proceed against the collateral granted to them to secure that debt, which would seriously harm our business.

Covenants in our amended credit agreement restrict our business and operations in many ways and if we do not effectively manage our covenants, our financial conditions and results of operations could be adversely affected.

The amended credit agreement contains various covenants that, among other things, limit our ability and/or our restricted subsidiaries' ability to:

- incur or assume liens or additional debt or provide guarantees in respect of obligations of other persons;
- pay dividends or distributions or redeem or repurchase capital stock;
- prepay, redeem or repurchase certain debt;
- make loans, investments, acquisitions (including acquisitions of exclusive licenses) and capital expenditures;
- enter into agreements that restrict distributions from our subsidiaries;
- sell assets and capital stock of our subsidiaries; and
- consolidate or merge with or into, or sell substantially all of our assets to, another person.

The amended credit agreement also includes certain financial covenants that require us to maintain a maximum secured leverage ratio and a minimum interest coverage ratio. Our failure to comply with any of the covenants could result in a default under the amended credit agreement, which could permit the lenders to declare all or part of any outstanding borrowings to be immediately due and payable, or to refuse to permit additional borrowings under the revolving credit facility. Moreover, our failure to repurchase our exchangeable senior notes at a time when the repurchase is required by the indentures governing our exchangeable senior notes or to pay any cash payable on future exchanges of our exchangeable senior notes as required by those indentures would constitute a default under those indentures. A default under those indentures could also lead to a default under other debt agreements or obligations, including the amended credit agreement. Likewise, a default under the amended credit agreement could also lead to a default under other debt agreements or obligations, including the indentures governing our exchangeable senior notes.

To continue to grow our business, we will need to commit substantial resources, which could result in future losses or otherwise limit our opportunities or affect our ability to operate and grow our business.

The scope of our business and operations has grown substantially since 2012, including through a series of business combinations and acquisitions. To continue to grow our business over the longer term, we plan to commit substantial resources to product acquisition and in-licensing, product development, clinical trials of product candidates and expansion of our commercial, development, manufacturing and other operations. Acquisition opportunities that we pursue could materially affect our liquidity and capital resources and may require us to incur additional indebtedness, seek equity capital or both. Our ability to raise additional capital may be adversely impacted by potential worsening global economic conditions and the recent disruptions to, and volatility in, the credit and financial markets in the U.S. and worldwide resulting from the effects of the COVID-19 pandemic. In addition, under Irish law, we must have authority from our shareholders to issue any ordinary shares, including ordinary shares that are part of our authorized but unissued share capital. Moreover, when an Irish company issues shares for cash to new shareholders, it is required first to offer those shares on the same or more favorable terms to existing shareholders on a pro-rata basis unless otherwise authorized by its existing shareholders. While we are currently authorized to issue all ordinary shares that are part of our authorized but unissued share capital on a non-pre-emptive basis, these share issuance authorities are scheduled to expire in August 2021. If we are unable to obtain renewal of our existing share issuance authorities from our shareholders, or are otherwise limited by the terms of new share issuance authorities approved by our shareholders, our ability to use our unissued share capital to effect or to fund in-licensing or acquisition opportunities, or to otherwise raise capital, could be adversely affected after expiration of our existing share issuance authorities in August 2021. An inability to borrow or raise additional capital on attractive terms, or at all, could prevent us from expanding our business and otherwise could have a material adverse effect on our business and growth prospects. In addition, if we use a substantial amount of our funds to acquire or in-license products or product candidates, we may not have sufficient additional funds to conduct all of our operations in the manner we would otherwise choose.

We have significant intangible assets and goodwill. Consequently, the future impairment of our intangible assets and goodwill may significantly impact our profitability.

Our intangible assets and goodwill are significant and are subject to an impairment analysis whenever events or changes in circumstances indicate the carrying amount of the asset may not be recoverable. Additionally, goodwill and indefinite-lived assets are subject to an impairment test at least annually. Events giving rise to impairment are an inherent risk in the pharmaceutical industry and cannot be predicted. Our results of operations and financial position in future periods could be negatively impacted should future impairments of intangible assets or goodwill occur. For example, in the first quarter of 2020, we recorded a $136.1 million asset impairment charge following the decision to stop enrollment in our Phase 3 clinical study of defibrotide for the prevention of VOD due to a determination that the study is highly unlikely to reach one of its primary endpoints.

Our financial results have been and may continue to be adversely affected by foreign currency exchange rate fluctuations.

Because our financial results are reported in U.S. dollars, we are exposed to foreign currency exchange risk as the functional currency financial statements of non-U.S. subsidiaries are translated to U.S. dollars for reporting purposes. To the extent that revenue and expense transactions are not denominated in the functional currency, we are also subject to the risk of transaction losses. For example, because our Sunosi, Defitelio, Erwinase and Vyxeos product sales outside of the U.S. are primarily denominated in the euro, our sales of those products have been and may continue to be adversely affected by fluctuations in foreign currency exchange rates. Given the volatility of exchange rates, as well as our expanding operations, there is no guarantee that we will be able to effectively manage currency transaction and/or translation risks, which could adversely affect our operating results. Although we utilize foreign exchange forward contracts to manage currency risk primarily related to certain intercompany balances denominated in non-functional currencies, our efforts to manage currency risk may not be successful.

Changes in our effective tax rates could adversely affect our business and financial condition, results of operations and growth prospects.

We are incorporated in Ireland and maintain subsidiaries in North America and a number of other foreign jurisdictions. As a result, our effective tax rate is derived from a combination of applicable tax rates in the various jurisdictions where we operate. Our effective tax rate may fluctuate depending on a number of factors, including, but not limited to, the distribution of our profits or losses between the jurisdictions where we operate and changes to or differences in interpretation of tax laws. We are subject to reviews and audits by the U.S. Internal Revenue Services, or IRS, and other taxing authorities from time to time, and the IRS or other taxing authority may challenge our structure, transfer pricing arrangements and tax positions through an audit or lawsuit. Responding to or defending against challenges from taxing authorities could be expensive and consume time and other resources. If we are unsuccessful, we may be required to pay taxes for prior periods, interest, fines or penalties, and may be obligated to pay increased taxes in the future, any of which could require us to reduce our operating expenses, decrease efforts in support of our products or seek to raise additional funds. Any of these actions could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

The IRS may not agree with the conclusion that we should be treated as a foreign corporation for U.S. federal tax purposes.

Although we are incorporated in Ireland, the IRS may assert that we should be treated as a U.S. corporation (and, therefore, a U.S. tax resident) for U.S. federal tax purposes pursuant to Section 7874 of the U.S. Internal Revenue Code, or the Code. For U.S. federal tax purposes, a corporation generally is considered a tax resident in the jurisdiction of its organization or incorporation. Because we are an Irish incorporated entity, we would be classified as a foreign corporation (and, therefore, a non-U.S. tax resident) under these rules. Section 7874 of the Code provides an exception under which a foreign incorporated entity may, in certain circumstances, be treated as a U.S. corporation for U.S. federal tax purposes. Because we indirectly acquired all of Jazz Pharmaceuticals, Inc.'s assets through the acquisition of the shares of Jazz Pharmaceuticals, Inc. common stock when the businesses of Jazz Pharmaceuticals, Inc. and Azur Pharma Public Limited Company were combined in a merger transaction in January 2012, or the Azur Merger, the IRS could assert that we should be treated as a U.S. corporation for U.S. federal tax purposes under Section 7874. The IRS continues to scrutinize transactions that are potentially subject to Section 7874, and has issued several sets of final and temporary regulations under Section 7874 since 2012. We do not expect these regulations to affect the U.S. tax consequences of the Azur Merger. Nevertheless, new statutory and/or regulatory provisions under Section 7874 of the Code or otherwise could be enacted that adversely affect our status as a foreign corporation for U.S. federal tax purposes, and any such provisions could have prospective or retroactive application to us, our shareholders, Jazz Pharmaceuticals, Inc. and/or the Azur Merger.

Our U.S. affiliates' ability to use their net operating losses to offset potential taxable income and related income taxes that would otherwise be due is limited under Section 7874 of the Code and could be subject to further limitations if we do not generate taxable income in a timely manner or if the "ownership change" provisions of Sections 382 and 383 of the Code result in further annual limitations.

Following certain acquisitions of a U.S. corporation by a foreign corporation, Section 7874 of the Code can limit the ability of the acquired U.S. corporation and its U.S. affiliates to utilize U.S. tax attributes such as net operating losses, or NOLs, to offset U.S. taxable income resulting from certain transactions. Our U.S. affiliates have a significant amount of NOLs. As a result of Section 7874 of the Code, after the Azur Merger, our U.S. affiliates have not been able and will continue to be unable, for a period of time, to utilize their U.S. tax attributes to offset their U.S. taxable income, if any, resulting from certain taxable transactions. While we expect to be able to fully utilize our U.S. affiliates' U.S. NOLs prior to their expiration, as a result of this limitation, it may take our U.S. affiliates longer to use their NOLs.

Our ability to use these NOLs to offset potential future taxable income and related income taxes that would otherwise be due is also dependent upon our generation of future taxable income before the expiration dates of the NOLs, and we cannot predict with certainty when, or whether, our U.S. affiliates will generate sufficient taxable income to use all of the NOLs. In addition, the use of NOLs to offset potential future taxable income and related income taxes that would otherwise be due is subject to annual limitations under the "ownership change" provisions of Sections 382 and 383 of the Code and similar state provisions, which may result in the expiration of additional NOLs before future utilization.

Changes to tax laws relating to multinational corporations could adversely affect us.

The U.S. Congress, the EU, the Organization for Economic Co-operation and Development, or OECD, and other government agencies in jurisdictions where we and our affiliates do business have had an extended focus on issues related to the taxation of multinational corporations. One example is the OECD's initiative in the area of "base erosion and profit shifting," where payments are made between affiliates from a jurisdiction with high tax rates to a jurisdiction with lower tax rates. Many countries have begun to implement legislation and other guidance to align their international tax rules with the OECD's recommendation. As a result of the focus on the taxation of multinational corporations, the tax laws in Ireland, the U.S. and other countries in which we and our affiliates do business could change on a prospective or retroactive basis, and any such changes could adversely affect us.

On December 22, 2017, the U.S. Tax Cuts and Jobs Act, or U.S. Tax Act, was signed into law. The U.S. Tax Act made broad and complex changes to the U.S. tax code. The U.S. Department of Treasury has issued regulations and other interpretive guidance under the U.S. Tax Act, and is expected to issue additional guidance, the impact of which is uncertain but could adversely affect us. Furthermore, the impact of this tax reform on certain holders of our ordinary shares could be adverse. Among other things, changes to the rules for determining a foreign corporation's status as a controlled foreign corporation could have an adverse effect on U.S. persons who are treated as owning (directly or indirectly) at least 10% of the value or voting power of our ordinary shares. Investors should consult their own advisers regarding the potential application of these rules to their investments.

Further, the results of the recent U.S. presidential and Senate elections could lead to changes in U.S. tax laws, including an increase in the U.S. corporate income tax rate from that currently in effect under the U.S. Tax Act, which could adversely impact our tax provision, cash tax liability and effective tax rate.

A substantial portion of our indebtedness bears interest at variable interest rates based on USD LIBOR and certain of our financial contracts are also indexed to USD LIBOR. Changes in the method of determining LIBOR, or the replacement of LIBOR with an alternative reference rate, may adversely affect interest rates on our current or future indebtedness and may otherwise adversely affect our financial condition and results of operations.

In July 2017, the Financial Conduct Authority, the authority that regulates the London Inter-bank Offered Rate, or LIBOR, announced that it intended to stop compelling banks to submit rates for the calculation of LIBOR after 2021. We have certain financial contracts, including the amended credit agreement and our interest rate swaps, that are indexed to USD LIBOR. Changes in the method of determining LIBOR, or the replacement of LIBOR with an alternative reference rate, may adversely affect interest rates on our current or future indebtedness. Any transition process may involve, among other things, increased volatility or illiquidity in markets for instruments that rely on LIBOR, reductions in the value of certain instruments or the effectiveness of related transactions such as hedges, increased borrowing costs, uncertainty under applicable documentation, or difficult and costly consent processes. The transition away from LIBOR may result in increased expenses, may impair our ability to refinance our indebtedness or hedge our exposure to floating rate instruments, or may result in difficulties, complications or delays in connection with future financing efforts, any of which could adversely affect our financial condition and results of operations.

Risks Related to Our Ordinary Shares

The market price of our ordinary shares has been volatile and is likely to continue to be volatile in the future, and the value of your investment could decline significantly.

The stock market in general, including the market for life sciences companies, has experienced extreme price and trading volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies, including recently in connection with the evolving effects of the COVID-19 pandemic, which has resulted in decreased market prices, notwithstanding the lack of a fundamental change in the underlying business models of those companies. Worsening economic conditions and other adverse effects or developments relating to the evolving effects of the COVID-19 pandemic may negatively affect the market price of our ordinary shares, regardless of our actual operating performance. The market price for our ordinary shares is likely to continue to be volatile, particularly due to the evolving effects of the COVID-19 pandemic, and subject to significant price and volume fluctuations in response to market, industry and other factors, including the risk factors described in this "Risk Factors" section.

Our share price may be dependent upon the valuations and recommendations of the analysts who cover our business. If our results do not meet these analysts' forecasts, the expectations of our investors or the financial guidance we provide to investors in any period, the market price of our ordinary shares could decline. Our ability to meet analysts' forecasts, investors' expectations and our financial guidance is substantially dependent on our ability to maintain or increase sales of our marketed products.

In addition, the market price of our ordinary shares may decline if the effects of our strategic transactions on our financial or operating results are not consistent with the expectations of financial analysts or investors. The market price of our ordinary shares could also be affected by possible sales of our ordinary shares by holders of our exchangeable senior notes who may view our exchangeable senior notes as a more attractive means of equity participation in our company and by hedging or arbitrage trading activity involving our ordinary shares by the holders of our exchangeable senior notes.

We are subject to Irish law, which differs from the laws in effect in the U.S. and may afford less protection to holders of our securities.

It may not be possible to enforce court judgments obtained in the U.S. against us in Ireland based on the civil liability provisions of the U.S. federal or state securities laws. In addition, there is some uncertainty as to whether the courts of Ireland would recognize or enforce judgments of U.S. courts obtained against us or our directors or officers based on the civil liability provisions of the U.S. federal or state securities laws or hear actions against us or those persons based on those laws. We have been advised that the U.S. currently does not have a treaty with Ireland providing for the reciprocal recognition and enforcement of judgments in civil and commercial matters. Therefore, a final judgment for the payment of money rendered by any U.S. federal or state court based on civil liability, whether or not based solely on U.S. federal or state securities laws, would not automatically be enforceable in Ireland.

As an Irish company, we are governed by the Irish Companies Act 2014, which differs in some material respects from laws generally applicable to U.S. corporations and shareholders, including, among others, differences relating to interested director and officer transactions, mergers, amalgamations and acquisitions, takeovers and shareholder lawsuits. The duties of directors and officers of an Irish company are generally owed to the company only. Shareholders of Irish companies generally do not have a personal right of action against directors or officers of the company and may exercise such rights of action on behalf of the company only in limited circumstances. Accordingly, holders of our securities may have more difficulty protecting their interests than would holders of securities of a corporation incorporated in a U.S. jurisdiction.

Our articles of association, Irish law and the indentures governing our exchangeable senior notes contain provisions that could delay or prevent a takeover of us by a third party.

Our articles of association could delay, defer or prevent a third party from acquiring us, despite the possible benefit to our shareholders, or otherwise adversely affect the price of our ordinary shares. In addition to our articles of association, several mandatory provisions of Irish law could prevent or delay an acquisition of us. We are also subject to various provisions of Irish law relating to mandatory bids, voluntary bids, requirements to make a cash offer and minimum price requirements, as well as substantial acquisition rules and rules requiring the disclosure of interests in our shares in certain circumstances. Furthermore, the indentures governing our exchangeable senior notes require us to repurchase our exchangeable senior notes for cash if we undergo certain fundamental changes and, in certain circumstances, to increase the exchange rate for a holder of our exchangeable senior notes. A takeover of us may trigger the requirement that we purchase our exchangeable senior notes and/or increase the exchange rate, which could make it more costly for a potential acquirer to engage in a business combination transaction with us.

These provisions, whether alone or together, may discourage potential takeover attempts, discourage bids for our ordinary shares at a premium over the market price or adversely affect the market price of, and the voting and other rights of the holders of, our ordinary shares. These provisions, whether alone or together, could also discourage proxy contests and make it more difficult for our shareholders to elect directors other than the candidates nominated by our board.

Future sales and issuances of our ordinary shares, securities convertible into our ordinary shares or rights to purchase ordinary shares or convertible securities could result in additional dilution of the percentage ownership of our shareholders and could cause our share price to decline.

We expect to continue to opportunistically seek access to additional capital to license or acquire additional products, product candidates or companies to expand our operations or for general corporate purposes. To the extent we raise additional capital by issuing equity securities or securities convertible into or exchangeable for ordinary shares, our shareholders may experience substantial dilution. We may sell ordinary shares, and we may sell convertible or exchangeable securities or other equity securities in one or more transactions at prices and in a manner we determine from time to time. If we sell such ordinary shares, convertible or exchangeable securities or other equity securities in subsequent transactions, existing shareholders may be materially diluted.

We have never declared or paid dividends on our capital stock and we do not anticipate paying dividends in the foreseeable future.

We do not currently plan to pay cash dividends in the foreseeable future. Any future determination as to the payment of dividends will, subject to Irish legal requirements, be at the sole discretion of our board of directors and will depend on our financial condition, results of operations, capital requirements, compliance with the terms of the amended credit agreement and other factors our board of directors deems relevant. Accordingly, holders of our ordinary shares must rely on increases in the trading price of their shares for returns on their investment in the foreseeable future. In addition, in the event that we pay a dividend on our ordinary shares, in certain circumstances, as an Irish tax resident company, some shareholders may be subject to withholding tax, which could adversely affect the price of our ordinary shares.

General Risk Factors

Our business and operations could be negatively affected if we become subject to shareholder activism or hostile bids, which could cause us to incur significant expense, hinder execution of our business strategy and impact our stock price.

Shareholder activism, which takes many forms and arises in a variety of situations, has been increasingly prevalent. Recent stock price declines due to the evolving effects of the COVID-19 may also increase our vulnerability to unsolicited approaches. If we become the subject of certain forms of shareholder activism, such as proxy contests or hostile bids, the attention of our management and our board of directors may be diverted from execution of our strategy. Such shareholder activism could give rise to perceived uncertainties as to our future strategy, adversely affect our relationships with business partners and make it more difficult to attract and retain qualified personnel. Also, we may incur substantial costs, including significant legal fees and other expenses, related to activist shareholder matters. Our stock price could be subject to significant fluctuation or otherwise be adversely affected by the events, risks and uncertainties of any shareholder activism.

If we fail to attract, retain and motivate key personnel or to retain the members of our executive management team, our operations and our future growth may be adversely affected.

Our success and our ability to grow depend in part on our continued ability to attract, retain and motivate highly qualified personnel, including our executive management team. We do not carry "key person" insurance. The loss of services and institutional knowledge of one or more additional members of our executive management team or other key personnel could delay or prevent the successful completion of some of our vital activities and may negatively impact our operations and future growth. In addition, changes in our organization as a result of executive management transition may have a disruptive impact on our ability to implement our strategy. Until we integrate new personnel, and unless they are able to succeed in their positions, we may be unable to successfully manage and grow our business. In any event, if we are unable to attract, retain and motivate quality individuals, or if there are delays, or if we do not successfully manage personnel and executive management transitions, our business, financial condition, results of operations and growth prospects could be adversely affected.

Item 1B. Unresolved Staff Comments

There are no material unresolved written comments that were received from the SEC staff 180 days or more before the end of our 2020 fiscal year relating to our periodic or current reports under the Securities Exchange Act of 1934, as amended.

Item 2. Properties

Our corporate headquarters are located in Dublin, Ireland, and our U.S. operations are located in Palo Alto, California and Philadelphia, Pennsylvania.

We lease approximately 45,000 square feet of office space in Dublin, Ireland. This lease expires in December 2036, with an option to terminate in December 2024 with no less than one year's prior written notice and the payment of a termination fee, and a further option to terminate in December 2031 with no less than one year's prior written notice.

We own approximately 58,000 square foot of manufacturing and development facility in Athlone, Ireland, which is primarily used for the manufacture of Xyrem, Xywav and development-stage products.

In Palo Alto, California, we occupy a total of approximately 198,000 square feet of office space, 99,000 square feet of which is under a lease that expires in October 2029 and has an option to terminate in October 2027 with no less than one year's prior written notice and the payment of a termination fee. The remaining 99,000 square feet is under a lease that expires in July 2031 and an option to terminate in October 2029 with no less than one year's prior written notice and the payment of a termination fee. We have an option to extend the terms of both leases twice for a period of five years each.

We occupy approximately 60,000 square feet of office space in Philadelphia, Pennsylvania under a lease that expires in April 2029 with an option to terminate in December 2025 with no less than one year's prior written notice and the payment of a termination fee.

We occupy approximately 26,000 square feet of office space in Oxford, United Kingdom under a lease that expires in April 2028 with an option to terminate in April 2025 with six months written notice.

We own a manufacturing facility in Villa Guardia (Como), Italy, which is primarily used for the manufacture of Defitelio. The manufacturing facility is approximately 45,000 square feet. We also lease approximately 34,000 square feet of office and laboratory space in Villa Guardia (Como), Italy under a lease that expires in December 2023. In addition, we have offices in Canada, France and elsewhere in Europe.

We believe that our existing properties are in good condition and suitable for the conduct of our business. As we continue to expand our operations, we may need to lease additional or alternative facilities.

Item 3. Legal Proceedings

The information required to be set forth under this Item 3 is incorporated by reference to Note 13, Commitments and Contingencies—Legal Proceedings of the Notes to Consolidated Financial Statements included in Part IV of this Annual Report on Form 10-K.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

Our ordinary shares trade on The Nasdaq Global Select Market under the trading symbol "JAZZ."

Holders of Ordinary Shares

As of February 16, 2021, there were three holders of record of our ordinary shares. Because almost all of our ordinary shares are held by brokers, nominees and other institutions on behalf of shareholders, we are unable to estimate the total number of shareholders represented by these record holders.

Dividends

In 2020 and 2019, we did not declare or pay cash dividends on our common equity. Under Irish law, dividends may only be paid, and share repurchases and redemptions must generally be funded only out of, "distributable reserves." In addition, the terms of our credit agreement restrict our ability to make certain restricted payments, including dividends and other distributions by us in respect of our ordinary shares, subject to, among other exceptions, (1) a general exception for dividends and restricted payments up to $30 million in the aggregate and (2) an exception that allows for restricted payments, subject to a cap equal to the sum of (i) $100 million plus (ii) so long as our secured leverage ratio (as defined in our credit agreement) does not exceed 3:1 after giving pro forma effect to the restricted payment, a formula-based amount tied to our consolidated net income; provided that such cap applies only if our total leverage ratio (as defined in our credit agreement) exceeds 2:1 after giving pro forma effect to the restricted payment. Any future determination as to the payment of dividends will, subject to Irish legal requirements, be at the sole discretion of our board of directors and will depend on our consolidated financial condition, results of operations, capital requirements, compliance with the terms our credit agreement or other future borrowing arrangements, and other factors our board of directors deems relevant.

Unregistered Sales of Equity Securities

Except as previously reported in our Quarterly Reports on Form 10-Q and Current Reports on Form 8-K filed with the Securities and Exchange Commission, or SEC, during the year ended December 31, 2020, there were no unregistered sales of equity securities by us during the year ended December 31, 2020.

Irish Law Matters

As we are an Irish incorporated company, the following matters of Irish law are relevant to the holders of our ordinary shares.

Irish Restrictions on Import and Export of Capital

Except as indicated below, there are no restrictions on non-residents of Ireland dealing in Irish domestic securities, which includes ordinary shares of Irish companies. Dividends and redemption proceeds also continue to be freely transferable to non-resident holders of such securities. The Financial Transfers Act, 1992 gives power to the Minister for Finance of Ireland to restrict financial transfers between Ireland and other countries and persons. Financial transfers are broadly defined and include all transfers that would be movements of capital or payments within the meaning of the treaties governing the member states of the European Union. The acquisition or disposal of interests in shares issued by an Irish incorporated company and associated payments falls within this definition. In addition, dividends or payments on redemption or purchase of shares and payments on a liquidation of an Irish incorporated company would fall within this definition. At present the Financial Transfers Act, 1992 prohibits financial transfers involving the late Slobodan Milosevic and associated persons, Belarus, certain persons indicted by the International Criminal Tribunal for the former Yugoslavia, the late Osama bin Laden, Al-Qaida, the Taliban of Afghanistan, Democratic Republic of Congo, Democratic People's Republic of Korea (North Korea), Iran, Iraq, Côte d'Ivoire, Lebanon, Liberia, Zimbabwe, Sudan, Somalia, Republic of Guinea, Republic of Guinea-Bissau, Afghanistan, Egypt, Libya, Syria, Tunisia, certain known terrorists and terrorist groups, countries that harbor certain terrorist groups and Ukraine without the prior permission of the Central Bank of Ireland.

Any transfer of, or payment in respect of, a share or interest in a share involving the government of any country that is currently the subject of United Nations sanctions, any person or body controlled by any of the foregoing, or by any person acting on behalf of the foregoing, may be subject to restrictions pursuant to such sanctions as implemented into Irish law.

Irish Taxes Applicable to U.S. Holders

Irish Tax on Dividends. While we have no current plans to pay dividends, dividends on our ordinary shares would generally be subject to Irish Dividend Withholding Tax at the standard rate (currently 25%), unless an exemption applies.

Irish Tax on Capital Gains. A shareholder who is neither resident nor ordinarily resident in Ireland and does not hold our ordinary shares in connection with a trade or business carried on by such shareholder in Ireland through a branch or agency should not be subject to Irish tax on capital gains on a disposal of our ordinary shares.

Capital Acquisitions Tax. Irish capital acquisitions tax, or CAT, is comprised principally of gift tax and inheritance tax. CAT could apply to a gift or inheritance of our ordinary shares irrespective of the place of residence, ordinary residence or domicile of the parties. This is because our ordinary shares are regarded as property situated in Ireland as our share register must be held in Ireland. The person who receives the gift or inheritance has primary liability for CAT.

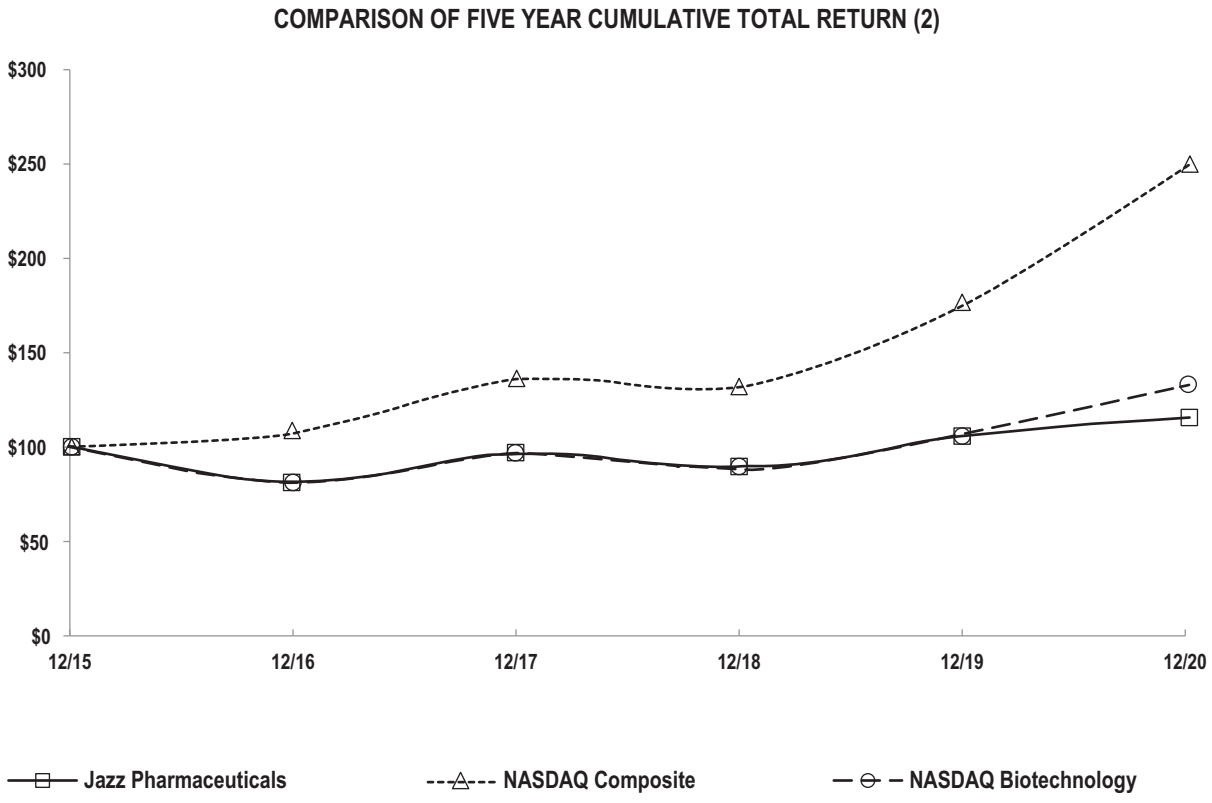
CAT is levied at a rate of 33% above certain tax-free thresholds. The appropriate tax-free threshold is dependent upon (i) the relationship between the donor and the donee and (ii) the aggregation of the values of previous gifts and inheritances received by the donee from persons within the same category of relationship for CAT purposes. Gifts and inheritances passing between spouses are exempt from CAT. Our shareholders should consult their own tax advisers as to any tax consequences of holding our ordinary shares, including whether CAT is creditable or deductible in computing any domestic tax liabilities.

Stamp Duty. Irish stamp duty (if any) may become payable in respect of ordinary share transfers. However, a transfer of our ordinary shares from a seller who holds shares through Depository Trust Company, or DTC, to a buyer who holds the acquired shares through DTC will not be subject to Irish stamp duty. A transfer of our ordinary shares (i) by a seller who holds ordinary shares outside of DTC to any buyer or (ii) by a seller who holds the ordinary shares through DTC to a buyer who holds the acquired ordinary shares outside of DTC, may be subject to Irish stamp duty (currently at the rate of 1% of the price paid or the market value of the ordinary shares acquired, if greater). The person accountable for payment of stamp duty is the buyer or, in the case of a transfer by way of a gift or for less than market value, all parties to the transfer.

A shareholder who holds ordinary shares outside of DTC may transfer those ordinary shares into DTC without giving rise to Irish stamp duty provided that the shareholder would be the beneficial owner of the related book-entry interest in those ordinary shares recorded in the systems of DTC (and in exactly the same proportions) as a result of the transfer and at the time of the transfer into DTC there is no sale of those book-entry interests to a third party being contemplated by the shareholder. Similarly, a shareholder who holds ordinary shares through DTC may transfer those ordinary shares out of DTC without giving rise to Irish stamp duty provided that the shareholder would be the beneficial owner of the ordinary shares (and in exactly the same proportions) as a result of the transfer, and at the time of the transfer out of DTC there is no sale of those ordinary shares to a third party being contemplated by the shareholder. In order for the share registrar to be satisfied as to the application of this Irish stamp duty treatment where relevant, the shareholder must confirm to us that the shareholder would be the beneficial owner of the related book-entry interest in those ordinary shares recorded in the systems of DTC (and in exactly the same proportions) (or vice-versa) as a result of the transfer and there is no agreement being contemplated for the sale of the related book-entry interest or the ordinary shares or an interest in the ordinary shares, as the case may be, by the shareholder to a third party.

Performance Measurement Comparison (1)

The following graph shows the total shareholder return on the last day of each year of an investment of $100 in cash as if made on December 31, 2015 in (i) our ordinary shares; (ii) the Nasdaq Composite Index; and (iii) the Nasdaq Biotechnology Index through December 31, 2020. The shareholder return shown in the graph below is not necessarily indicative of future performance, and we do not make or endorse any predictions as to future shareholder returns.



(1) This section is not "soliciting material," is not deemed "filed" with the SEC and is not to be incorporated by reference into any of our filings under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, or Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

(2) Information used in the graph was obtained from Research Data Group, Inc.

Issuer Purchases of Equity Securities

In November 2016, our board of directors authorized a share repurchase program and as of December 31, 2020 had authorized the repurchase of ordinary shares having an aggregate purchase price of up to $1.5 billion, exclusive of any brokerage commissions. Under this program, which has no expiration date, we may repurchase ordinary shares from time to time on the open market. During the three months ended December 31, 2020, we did not repurchase any of our ordinary shares. In 2020, we spent a total of $146.5 million to purchase 1.2 million of our ordinary shares under the share repurchase program at an average total purchase price, including commissions, of $121.98 per share. All ordinary shares repurchased were canceled. As of December 31, 2020, the remaining amount authorized under the share repurchase program was $431.2 million.

Item 6. Selected Financial Data

The following selected consolidated financial data should be read together with our consolidated financial statements and accompanying notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations" appearing elsewhere in this Annual Report on Form 10-K. The selected consolidated financial data in this section is not intended to replace our consolidated financial statements and the accompanying notes. Our historical results are not necessarily indicative of our future results.

We derived the consolidated statements of income data for the years ended December 31, 2020, 2019 and 2018 and the selected consolidated balance sheet data as of December 31, 2020 and 2019 from the audited consolidated financial statements appearing elsewhere in this Annual Report on Form 10-K. The consolidated statements of income data for the years ended December 31, 2017 and 2016, and the selected consolidated balance sheet data as of December 31, 2018, 2017 and 2016 are derived from audited consolidated financial statements not included in this Annual Report on Form 10-K.

	Year Ended December 31,				
	2020	2019	2018	2017	2016(1)
	(In thousands, except per share amounts)				
Consolidated Statements of Income Data:					
Revenues:					
Product sales, net	$2,346,660	$2,135,601	$1,869,473	$1,601,399	$1,477,261
Royalties and contract revenues	16,907	26,160	21,449	17,294	10,712
Total revenues	2,363,567	2,161,761	1,890,922	1,618,693	1,487,973
Operating expenses:					
Cost of product sales (excluding amortization of acquired developed technologies)	148,917	127,930	121,544	110,188	105,386
Selling, general and administrative	854,233	736,942	683,530	544,156	502,892
Research and development	335,375	299,726	226,616	198,442	162,297
Intangible asset amortization	259,580	354,814	201,498	152,065	101,994
Impairment charges	136,139	—	42,896	—	—
Acquired in-process research and development	251,250	109,975	—	85,000	23,750
Total operating expenses	1,985,494	1,629,387	1,276,084	1,089,851	896,319
Income from operations	378,073	532,374	614,838	528,842	591,654
Interest expense, net	(99,707)	(72,261)	(78,500)	(77,756)	(62,580)
Foreign exchange gain (loss)	(3,271)	(5,811)	(6,875)	(9,969)	3,372
Income before income tax provision (benefit) and equity in loss of investees	275,095	454,302	529,463	441,117	532,446
Income tax provision (benefit)	33,517	(73,154)	80,162	(47,740)	135,236
Equity in loss of investees	2,962	4,089	2,203	1,009	379
Net income	$ 238,616	$ 523,367	$ 447,098	$ 487,848	$ 396,831
Net income per ordinary share:					
Basic	$ 4.28	$ 9.22	$ 7.45	$ 8.13	$ 6.56
Diluted	$ 4.22	$ 9.09	$ 7.30	$ 7.96	$ 6.41
Weighted-average ordinary shares used in per share calculations—basic	55,712	56,749	59,976	60,018	60,500
Weighted-average ordinary shares used in per share calculations—diluted	56,517	57,550	61,221	61,317	61,870

	As of December 31,				
	2020	2019	2018	2017	2016(1)
			(In thousands)		
Consolidated Balance Sheet Data:					
Cash, cash equivalents and investments	$2,132,769	$1,077,344	$ 824,622	$ 601,035	$ 425,963
Working capital	2,185,823	1,265,778	888,518	674,330	490,663
Total assets	6,535,901	5,538,897	5,203,491	5,123,672	4,800,227
Long-term debt, current and non-current	2,094,838	1,607,257	1,596,412	1,581,038	2,029,625
Retained earnings	1,159,894	1,067,815	841,050	917,956	528,907
Total Jazz Pharmaceuticals plc shareholders' equity	3,659,745	3,110,981	2,757,422	2,713,097	1,877,339

(1) On July 12, 2016, we completed the acquisition of Celator Pharmaceuticals, Inc., or Celator, which acquisition we refer to in this report as the Celator Acquisition, for an aggregate cash consideration of $1.5 billion and the results of operations of the acquired Celator business, along with the estimated fair values of the assets acquired and liabilities assumed, have been included in our consolidated financial statements since the closing of the Celator Acquisition.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion of our financial condition and results of operations should be read in conjunction with the consolidated financial statements and notes to consolidated financial statements included elsewhere in this Annual Report on Form 10-K. This discussion contains forward-looking statements that involve risks and uncertainties. When reviewing the discussion below, you should keep in mind the substantial risks and uncertainties that impact our business. In particular, we encourage you to review the risks and uncertainties described in "Risk Factors" in Part I, Item 1A in this Annual Report on Form 10-K. These risks and uncertainties could cause actual results to differ materially from those projected in forward-looking statements contained in this report or implied by past results and trends.

Overview

Jazz Pharmaceuticals plc is an innovative global biopharmaceutical company dedicated to developing and commercializing life-changing medicines that transform the lives of patients with serious diseases – often with limited or no options. We have a diverse portfolio of marketed medicines and novel product candidates, in early- to late-stage development, across key therapeutic areas. Our focus is in neuroscience, including sleep and movement disorders, and in oncology, including hematologic malignancies and solid tumors. We actively explore new options for patients including novel compounds, small molecule advancements, biologics and innovative delivery technologies.

Our lead marketed products are:

- **Xyrem® (sodium oxybate) oral solution**, a product approved by the U.S. Food and Drug Administration, or FDA, and marketed in the U.S. for the treatment of both cataplexy and excessive daytime sleepiness, or EDS, in narcolepsy patients seven years of age and older;
- **Xywav™ (calcium, magnesium, potassium, and sodium oxybates) oral solution**, a product that contains 92% less sodium than Xyrem, approved by FDA and launched in the U.S. in November 2020 for the treatment of cataplexy or EDS in narcolepsy patients seven years of age and older;
- **Sunosi® (solriamfetol)**, a product approved by FDA and the European Commission and marketed in the U.S. and in Europe to improve wakefulness in adult patients with EDS associated with narcolepsy or obstructive sleep apnea, or OSA;
- **Defitelio® (defibrotide sodium)**, a product approved in the U.S. for the treatment of adult and pediatric patients with hepatic veno-occlusive disease, or VOD, also known as sinusoidal obstruction syndrome, with renal or pulmonary dysfunction following hematopoietic stem cell transplantation, or HSCT, and in Europe (where it is marketed as Defitelio® (defibrotide)) for the treatment of severe VOD in adults and children undergoing HSCT therapy;
- **Erwinaze® (asparaginase *Erwinia chrysanthemi*)**, a product approved in the U.S. and in certain markets in Europe (where it is marketed as Erwinase®) for patients with acute lymphoblastic leukemia, or ALL, who have developed hypersensitivity to *E. coli*-derived asparaginase;
- **Vyxeos® (daunorubicin and cytarabine) liposome for injection**, a product approved in the U.S. and in Europe (where it is marketed as Vyxeos® liposomal 44 mg/100 mg powder for concentrate for solution for infusion) for the treatment of adults with newly-diagnosed therapy-related acute myeloid leukemia, or AML, or AML with myelodysplasia-related changes; and
- **Zepzelca™ (lurbinectedin)**, a product approved by FDA and launched in July 2020 in the U.S. for the treatment of adult patients with metastatic small cell lung cancer, or SCLC, with disease progression on or after platinum-based chemotherapy.

Our strategy to create sustainable shareholder value is focused on:

- Strong commercial execution to drive diversified revenue growth and address unmet medical needs of our patients across our product portfolio including with rapid adoption of Xywav in the U.S., Sunosi growth globally and establishing Zepzelca as a treatment of choice for second line SCLC patients;
- Expanding and advancing our pipeline with internal and external patient-centric innovation to achieve a valuable product portfolio of durable, highly differentiated programs;
- Continuing to build a flexible, efficient, and productive development engine for targeted therapeutic conditions to identify and progress early- and mid-stage assets; and
- Investing in an efficient, scalable operating model and differentiated capabilities to enable growth and unlock further value through indication expansion and global markets.

In 2020, consistent with our strategy, we continued to focus on research and development activities within our neuroscience and oncology therapeutic areas, such as our expansion into movement disorders and solid tumors, and exploring and investing in adjacent therapeutic areas that could further diversify our portfolio, such as post-traumatic stress disorders through our acquisition of SpringWorks Therapeutics, Inc.'s, or SpringWorks', fatty acid amide hydrolase, or FAAH, inhibitor program. For a summary of our ongoing research and development activities, see "Business—Research and Development" in this Part I, Item 1.

Our development activities encompass all stages of development and currently include clinical testing of new product candidates and activities related to clinical improvements of, or additional indications or new clinical data for, our existing marketed products. We have also expanded into preclinical exploration of novel therapies, including precision medicines in hematology and oncology. We are increasingly leveraging our growing internal research and development function, and we have also entered into collaborations with third parties for the research and development of innovative early-stage product candidates and have supported additional investigator-sponsored trials that will generate additional data related to our products. We also seek out investment opportunities in support of development of early- and mid-stage technologies in our therapeutic areas and adjacencies. We have a number of licensing and collaboration agreements with third parties, including biotechnology companies, academic institutions and research-based companies and institutions, related to preclinical and clinical research and development activities in hematology and in precision oncology, as well as in neuroscience. A summary of our ongoing development activities is provided under "Business—Research and Development" in Part I, Item 1 of this Annual Report on Form 10-K. For 2021 and beyond, we expect that our research and development expenses will continue to increase from previous levels, particularly as we prepare for anticipated regulatory submissions and data read-outs from clinical trials, initiate and undertake additional clinical trials and related development work and potentially acquire rights to additional product candidates.

2020 Highlights and Recent Developments

Regulatory Approvals and Launches

- In January 2020, the European Commission approved Sunosi to improve wakefulness in adult patients with EDS associated with narcolepsy or OSA. In May and October 2020, we launched Sunosi in Germany and Denmark, respectively.
- In February 2020, FDA accepted for filing with priority review the new drug application, or NDA, for Zepzelca for the treatment of relapsed SCLC, a product candidate for which we recently acquired exclusive U.S. development and commercialization rights, with a Prescription Drug User Fee Act, or PDUFA, action date of August 16, 2020. In June 2020, FDA granted Zepzelca accelerated approval for the treatment of adult patients with metastatic SCLC with disease progression on or after platinum-based chemotherapy, a product for which we have exclusive U.S. commercialization rights. In July 2020, we launched Zepzelca in the U.S. and the National Comprehensive Cancer Network added Zepzelca to the clinical practice guidelines in oncology for SCLC as a preferred treatment in patients who relapse in six months or less after prior systemic therapy and as a recommended regimen in patients who relapse more than six months after prior systemic therapy. At launch, all planned contracts with distributors and group purchasing organizations were in place for Zepzelca.
- In January 2020, we submitted an NDA to FDA seeking marketing approval for Xywav (formerly JZP-258), an oxybate product candidate that contains 92% less sodium than Xyrem, for the treatment of cataplexy and EDS in narcolepsy patients seven years of age and older. In March 2020, FDA accepted our NDA for filing with priority review with a PDUFA action date of July 21, 2020. In July 2020, FDA approved our NDA for Xywav. In November 2020, we commenced the U.S. launch of Xywav. The 92% reduction of sodium translates into a reduction of approximately 1,000 to 1,500 milligrams per day for a patient prescribed an oxybate product, depending on the dose. When patients start Xywav after sodium oxybate, Xywav treatment is initiated at the same dose and regimen as sodium oxybate (gram for gram) and titrated as needed based on efficacy and tolerability. The label for Xywav, unlike Xyrem, does not include a warning to prescribers to monitor patients sensitive to sodium intake, including patients with heart failure, hypertension or renal impairment. There is a well-accepted relationship between dietary sodium and blood pressure as well as published hypertension guidelines underscoring that excessive consumption of sodium is independently associated with an increased risk of stroke, cardiovascular disease and other adverse outcomes. In approving Xywav, FDA approved a risk evaluation and mitigation strategy, or REMS, for Xywav and Xyrem. In an effort to support strong adoption of Xywav, we are focused on providing robust patient access programs and facilitating payor coverage for Xywav.
- In July 2020, Defitelio was approved by the Australian Therapeutic Goods Administration for the treatment of VOD.

Regulatory Submissions

- In October 2020, we announced positive top-line results from a Phase 3 clinical trial evaluating JZP-258 in adult patients with idiopathic hypersomnia, a chronic, neurological disorder that is primarily characterized by EDS and that currently has no approved therapies in the U.S. We completed the rolling submission of a supplemental new drug application in February 2021

and if approved by FDA in a timely manner, we expect a potential launch of JZP-258 w in the fourth quarter of 2021. FDA granted Fast Track designation for JZP-258 for the treatment of idiopathic hypersomnia in September 2020.

Research & Development

- In April 2020, we announced our decision to stop enrollment in our Phase 3 clinical study of defibrotide due to a determination that the study is highly unlikely to reach one of its primary endpoints, the prevention of VOD. This does not impact the approved indication or other ongoing defibrotide studies.
- In September 2020, FDA granted Rare Pediatric Disease designation for JZP-458 for the treatment of pediatric ALL, and prior to that, in October 2019, FDA granted Fast Track designation for JZP-458, a recombinant *Erwinia* asparaginase product candidate, for the treatment of pediatric and adult patients with ALL or lymphoblastic lymphoma who are hypersensitive to *E. coli*-derived asparaginase products. Our pivotal Phase 2/3 clinical study (conducted in collaboration with the Children's Oncology Group) for JZP-458 continues to enroll, and we initiated the submission of our biologics license application, or BLA, to FDA for JZP-458 in December 2020, with an objective of launching in the U.S. in mid-2021 to ensure that ALL patients have access to a reliable, high-quality recombinant product given the ongoing supply issues with Erwinaze.
- In September 2020, we completed our healthy volunteer study in JZP-385 for the potential treatment of essential tremor.

Other Significant Developments

- During 2020, we repurchased an aggregate of $146.5 million of our ordinary shares under our share repurchase program at an average price of $121.98 per share.
- In June 2020, Jazz Investments I Limited, our wholly owned subsidiary, completed a private offering of an aggregate $1.0 billion principal amount of 2.00% exchangeable senior notes due 2026, or the 2026 Notes. We used a portion of the net proceeds from the issuance of the 2026 Notes to repurchase for cash $356.2 million aggregate principal amount of existing 1.875% exchangeable senior notes due 2021, or the 2021 Notes. The remaining net proceeds were used for general corporate purposes.
- In September 2020, we entered into a new research collaboration agreement with Redx Pharma plc, or Redx, to discover and develop drug candidates for two cancer targets in the Ras/Raf/MAP kinase pathway. This research collaboration follows our previously announced purchase of Redx's preclinical pan-Raf inhibitor program for the potential treatment of Raf and Ras mutant tumors in July 2019. Under the terms of the 2020 research collaboration agreement, we made an upfront payment to Redx of $10.0 million, which will be followed by another $10.0 million in 2021, provided research work is continuing. Following delivery of an investigational new drug, or IND,-ready molecule, Redx will be eligible to receive up to a further $200.0 million from us in development, regulatory and commercial milestone payments for each program. The first milestone is payable upon successful IND submission. In addition, Redx is eligible to receive tiered royalties in mid-single digit percentages of any future net sales. Following a successful submission of an IND application, we will be responsible for further development, manufacturing, regulatory activities and commercialization.
- In October 2020, we entered into an asset purchase and exclusive license agreement with SpringWorks under which we acquired SpringWorks' FAAH inhibitor program. Under the terms of the agreement, SpringWorks has assigned or exclusively licensed all assets relating to its FAAH inhibitor program to us, including assignment of SpringWorks' proprietary FAAH inhibitor PF-04457845, or PF-'845, now named JZP-150, and its license agreement with Pfizer, Inc., or Pfizer, under which Pfizer exclusively licensed PF-'845 to SpringWorks in 2017. We will initially focus on developing JZP-150 for the potential treatment of post-traumatic stress disorder and associated symptoms. In addition to assuming all milestone and royalty obligations owed by SpringWorks to Pfizer, we made an upfront payment of $35.0 million to SpringWorks, which was recorded as acquired in-process research and development, or IPR&D expense in our consolidated statement of income for the year ended December 31, 2020, and may make potential milestone payments to SpringWorks of up to $375.0 million upon the achievement of certain clinical, regulatory and commercial milestones, and pay incremental tiered royalties to SpringWorks on future net sales of JZP-150 in the mid- to high-single digit percentages.
- In October 2020, we entered into an amendment and restatement of our license agreement, or the amended license agreement, with PharmaMar, S.A., or PharmaMar, which expanded our exclusive license to include rights to develop and commercialize Zepzelca in Canada.
- In February 2021, we entered into a definitive transaction agreement, or the Transaction Agreement, with GW Pharmaceuticals plc, or GW. The GW Transaction Agreement provides, among other things, that, subject to the satisfaction or waiver of the conditions set forth in the GW Transaction Agreement, we will acquire the entire issued share capital of GW. Under the GW

Transaction Agreement, the consideration to be paid by us in the GW Acquisition consists of $220.00 per American Depositary Share in GW, to be paid in the form of $200 in cash and $20 in our ordinary shares, for total consideration of approximately $7.2 billion. The GW Acquisition is expected to close in the second quarter of 2021, subject to the satisfaction or waiver of the conditions set forth in the GW Transaction Agreement, including applicable regulatory approvals and the approval of GW shareholders. On February 3, 2021, in connection with the execution of the GW Transaction Agreement, we entered into a commitment letter with BofA Securities, Inc., Bank of America, N.A. and JPMorgan Chase Bank, N.A. pursuant to which these commitment parties have committed to provide us with a senior secured revolving credit facility in an aggregate principal amount of up to $500.0 million, a senior secured term loan B facility in an aggregate principal amount of up to $3,150.0 million and a senior secured bridge loan facility in an aggregate principal amount of up to $2,200.0 million to, among other things, finance our obligations in respect of the GW Acquisition. The effectiveness of such credit facilities is subject to the occurrence of customary closing conditions, including the consummation of the GW Acquisition. We expect that product sales, operating expenses and interest expense, will be higher in 2021 than in 2020 due to the continued growth of the organization and, upon closing, the impact of the inclusion of the results of operations from GW and the higher debt balance.

Operational Excellence

In addition, we remain focused on continuing to build excellence in areas that we believe will give us a competitive advantage, including building an increasingly agile and adaptable commercialization engine and strengthening our customer-focused market expertise across patients, providers and payors. We are refining our approach to engaging our customers by strengthening alignment and integration across functions and across regions. This includes a more integrated approach to brand planning, a heightened focus on launch and operational excellence and multichannel customer engagement. We have fully adapted to virtual scientific congresses designed to ensure we can continue to provide promotional and non-promotional interactions and have supported our field-based teams with virtual customer interaction tools, training and content. These initiatives mark a significant operational evolution that is directly linked to our corporate strategy and are designed to better enable our teams to work collaboratively on an aligned and shared agenda. We are leveraging our differentiated operational capabilities this year in achieving three product approvals and executing our ongoing launches.

COVID-19 Business Update

With the global impact of the COVID-19 pandemic, we have developed a comprehensive response strategy including establishing cross-functional response teams and implementing business continuity plans to manage the impact of the COVID-19 pandemic on our employees, patients and our business. Since the second quarter of 2020, we have been experiencing financial and other impacts of the pandemic, and given the global economic slowdown, the overall disruption of global healthcare systems and the other risks and uncertainties associated with the pandemic, we expect that our business, financial condition, results of operations and growth prospects will continue to be adversely affected in future quarters.

We support broad public health strategies designed to prevent the spread of COVID-19 and are focused on the health and welfare of our employees. In accordance with guidance issued by the Centers for Disease Control and Prevention, the World Health Organization and local authorities, in March 2020, our global workforce, including field-based teams, transitioned to working remotely. Our global organization has mobilized to enable our employees to accomplish our most critical goals in new ways, leveraging positivity, innovation and prioritization of resources to overcome new obstacles. In addition to rolling out new technologies and collaboration tools, we have implemented processes and resources to support our employees in the event an employee receives a positive COVID-19 diagnosis. We have developed and are implementing plans regarding the opening of our sites and enable our employees to return to work in our global offices, the field and our manufacturing facilities, which plans take into account applicable public health authority and local government guidelines and which are designed to ensure community and employee safety. However, the effects of the COVID-19 pandemic continue to rapidly evolve and even if our employees more broadly return to work in our global offices, the field and our manufacturing facilities, we may nevertheless have to resume a remote work model. We continue to evaluate our remote work model and the impact of global spikes or surges in COVID-19 infection or hospitalization rates.

Commercialization

With respect to our commercialization activities, the evolving effects of the COVID-19 pandemic continue to have a negative impact on demand, new patient starts and treatments for our products, primarily due to the inherent limitations of telemedicine and a reprioritization of healthcare resources toward COVID-19. Due to the nature of the pandemic, we are not able to accurately predict the duration or extent of these impacts on demand for our products. Beginning in March 2020, we transitioned our field-based sales, market access, reimbursement and medical employees out of the field and suspended work-related travel and in-person customer interactions. We utilized technology to continue to engage healthcare professionals and other customers virtually to support patient care. In late June 2020, as clinics and institutions began to allow in-person interactions pursuant to local health authority and government guidelines, our field

teams resumed in-person interactions with healthcare professionals and clinics combined with virtual engagement. The level of renewed engagement varies by account, region and country and may be adversely impacted in the future as a result of the continuing impact of the COVID-19 pandemic.

For Xyrem and Xywav, COVID-19 protocols and staffing shortages at sleep labs across the U.S. have resulted in reduced access to sleep testing. Since the end of the first quarter of 2020, we have seen a decline in prescribers' ability to diagnose new narcolepsy patients and a related overall decline in new patients starting on therapy. Although patient persistence and compliance with oxybate therapy have increased during 2020, we continue to expect that delays in obtaining a narcolepsy diagnosis will have a negative impact on new Xyrem and Xywav patient enrollments in future quarters. For Sunosi, the impact on demand has been primarily related to the reduced ability of our field-based teams to interact with prescribers and patients' inability to meet with healthcare providers during this time. COVID-19 affected our Sunosi launch, impairing our ability to build new relationships, especially with pulmonologists, the main OSA prescriber group, who were at the forefront in the battle against the pandemic. As a result, we have seen slower than expected growth of Sunosi prescribers and new patient starts in the U.S. We also anticipate that pricing and reimbursement reviews by certain European regulatory authorities may take longer in certain countries due to the pandemic, which could delay our rolling Sunosi launch in those European Union, or EU, member states.

Following a decline in demand for Defitelio in the second quarter of 2020, we saw a resurgence in demand in the U.S. and outside the U.S. at the end of the second quarter through year's end due to some hematopoietic stem cell transplants being performed that were previously postponed due to COVID-19 related delays, postponements or suspensions of stem cell transplant procedures. Vyxeos demand declined in 2020 due to COVID-19 related delays in AML treatments primarily in the U.S. and due to recommendations to increase the use of oral oncology products to avoid hospitalizations and use of intensive care beds during the pandemic, which was partially offset by launches in Germany and Italy outside the U.S. Due to the ongoing impacts of the COVID-19 pandemic, we continue to expect a regional variation in the utilization of Defitelio and Vyxeos. Since the launch of Zepzelca in July 2020, we are experiencing strong initial physician reception and uptake of Zepzelca across academic and community accounts. Our sales force is actively engaging with target prescribers through virtual and live interactions, and we have been executing a broad multi-channel awareness campaign designed to grow awareness and utilization of Zepzelca.

We have also seen an upward trend in demand for patient financial assistance programs since the end of the first quarter of 2020. In this regard, total net product sales of Xywav for the year ended December 31, 2020 were offset by the cost of launch related co-pay coupons and a free product program for certain qualified patients. Depending on the ultimate duration and severity of the COVID-19 pandemic and the extent of a global economic slowdown, widespread unemployment and resulting loss of employer-sponsored insurance coverage, we may experience an increasing shift from commercial payor coverage to government payor coverage or increasing demand for patient assistance and/or free drug programs, which could continue to adversely affect net product sales.

Supply Chain

Our manufacturing facility in Athlone, Ireland, which produces Xyrem and Xywav, continues to be operational with essential staff onsite and office-based staff working remotely. In March 2020, we temporarily ceased operations at our Villa Guardia, Italy manufacturing facility, which produces defibrotide, to ensure the safety of our employees and communities in northern Italy. We reopened the facility in the second quarter of 2020 taking into account applicable public health authority and local government guidelines as well as employee safety, and the facility has now resumed operations. While we currently expect to have adequate global supply of Xyrem, Xywav, Sunosi, Defitelio, Vyxeos and Zepzelca for 2021, if the impacts of the COVID-19 pandemic become more severe and begin to impact supply of manufacturing materials or essential distribution systems such as general delivery services, or require us or our suppliers to again cease or restrict operations at our respective manufacturing facilities, we could experience disruptions to our supply chain and operations, and associated delays in the manufacturing and supply of our products, which would adversely impact our ability to generate sales of and revenues from our approved products.

Research and Development

With respect to our clinical trial activities, we have taken measures to implement remote and virtual approaches, including remote data monitoring where possible, to maintain patient safety and trial continuity and to preserve study integrity. We have seen limited COVID-19-related impact to our mid- and late-stage clinical trial activity, despite delays in initiating trial sites. For example, while we temporarily suspended two of our healthy volunteer clinical development programs, JZP-385 and JZP-324, in the interest of volunteer safety, we were able to restart these clinical trials in the third quarter of 2020 with the implementation of appropriate safety protocols. While it has not been the case thus far, we could still see an impact on the ability to supply study drug, report trial results, or interact with regulators, ethics committees or other important agencies due to limitations in regulatory authority employee resources or otherwise. In

addition, we rely on contract research organizations or other third parties to assist us with clinical trials, and we cannot guarantee that they will continue to perform their contractual duties in a timely and satisfactory manner as a result of the evolving effects of the COVID-19 pandemic. If these effects become more severe, we could experience significant disruptions to our clinical development timelines, which would adversely affect our business, financial condition, results of operations and growth prospects. In addition, some patients may not be able to comply with clinical trial protocols if quarantines impede patient movement or interrupt healthcare services. Similarly, our ability to recruit and retain patients and principal investigators and site staff who, as healthcare providers, may have heightened exposure to COVID-19, may adversely impact our clinical trial operations.

Corporate Development and Other Financial Impacts

With our strong cash balance and positive cash flow, we anticipate having sufficient liquidity to make planned investments in our business in support of our long-term growth strategy. However, the COVID-19 pandemic continues to rapidly evolve and has resulted in significant volatility in the global financial markets. If the disruption persists and deepens, we could experience an inability to access additional capital, which could in the future negatively affect our capacity for certain corporate development transactions or our ability to make other important, opportunistic investments. The effects of the pandemic could also impact our ability to do in-person due diligence, negotiations, and other interactions to identify new opportunities.

While we expect the effects of the COVID-19 pandemic to adversely affect our business operations and financial results, the extent of the impact on our ability to generate sales of and revenues from our approved products, execute on new product launches, our clinical development and regulatory efforts, our corporate development objectives and the value of and market for our ordinary shares, will depend on future developments that are highly uncertain and cannot be predicted with confidence at this time, such as the ultimate duration and severity of the pandemic, governmental “stay-at-home” orders and travel restrictions, quarantines, social distancing and business closure requirements in the U.S., Ireland and other countries, and the effectiveness of actions taken globally to contain and treat the disease, including the effectiveness and timing of vaccination programs in the U.S. and worldwide. For example, the inability of our workforce to return to office and field-based work and the ongoing stress and reprioritization within the healthcare systems in our key markets may require us to reassess the timing and scope of key business activities for the remainder of 2021, including with respect to our ability to continue the launch momentum for Xywav, Sunosi and Zepzelca.

Corporate Response

The COVID-19 pandemic has caused a significant burden on health systems globally and has highlighted the need for companies to evaluate existing therapies to assess if they can be utilized beyond their current indications to treat COVID-19 as well as consider developing new therapies. We have accelerated our efforts to study, build expertise and generate data around defibrotide in the treatment of acute respiratory distress syndrome, a severe and relatively common symptom of COVID-19. We have received and granted requests for multiple investigator-sponsored trials, or ISTs, to evaluate the use of defibrotide in COVID-19 patients experiencing respiratory distress. Three of these trials are currently recruiting patients including an IST in Spain for the prevention and treatment of respiratory distress and cytokine release syndrome, a trial in Italy to evaluate the reduction in the rate of respiratory failure in patients with COVID-19 pneumonia and an IST in Michigan evaluating the safety and tolerability of defibrotide for therapy of patients with SARS-CoV2-related acute respiratory distress syndrome.

In addition, we are supporting our local communities and patient-focused organizations in COVID-19 relief efforts including through corporate donations to charitable organizations providing food and medical relief to our communities in which we operate in Italy, Philadelphia and the San Francisco Bay Area, and other localities where the needs related to the impact of COVID-19 are greatest. We are engaging with patient advocacy organizations to better understand the impact of COVID-19 and working to ensure that patients living with sleep disorders and hematology and oncology conditions continue to have access to treatments and that their other needs are addressed given the impact of COVID-19 on the healthcare system. We are committed to enabling our employees to give back, including allowing licensed healthcare practitioners employed by us to support local response efforts.

Other Challenges, Risks and Trends Related to Our Business

Our business has been substantially dependent on Xyrem. Our future plans assume that our newly launched oxybate product Xywav, with 92% lower sodium compared to Xyrem, depending on the dose, absence of a sodium warning and dosing titration option, will become the treatment of choice for patients who can benefit from oxybate treatment, current Xyrem patients, and patients who previously were not prescribed Xyrem, including those patients for whom sodium content is a concern. While we expect that our business will continue to be substantially dependent on oxybate product sales from both Xyrem and Xywav, there is no guarantee that we can maintain oxybate sales at or near historical levels, or that oxybate sales will continue to grow.

Our ability to successfully commercialize Xywav will depend on, among other things, our ability to obtain and maintain adequate coverage and reimbursement for Xywav and acceptance of Xywav by payors, physicians and patients. In an effort to support strong adoption of Xywav, we are focused on providing robust patient access programs and facilitating payor coverage for Xywav. Moreover, we have increasingly experienced pressure from third party payors to agree to discounts, rebates or restrictive pricing terms for our products, and we cannot guarantee we will be able to agree to commercially reasonable terms with pharmacy benefit managers, or PBMs, and other third party payors, or that we will be able to ensure patient access to our existing and future products and acceptance of our products on institutional formularies. Entering into agreements with PBMs and payors to ensure patient access has and will likely continue to result in higher gross to net deductions for these products. In addition to the COVID-19 related impacts described above, in the future, we expect our oxybate products to face competition from generic and authorized generic versions of sodium oxybate pursuant to the settlement agreements we have entered into with multiple abbreviated new drug application filers. Generic competition can decrease the prices at which Xyrem and Xywav are sold and the number of prescriptions written for Xyrem and Xywav. Xyrem and Xywav may also face increased competition from new branded products for treatment of cataplexy and/or EDS in narcolepsy in the U.S. market.

As for other products in our neuroscience therapeutic area, if we are unable to successfully commercialize Sunosi in the U.S. and Europe, or if sales of Sunosi do not reach the levels we expect, our anticipated revenue from Sunosi will be negatively affected, which would have a material adverse effect on our business, financial condition, results of operations and growth prospects.

In addition to our neuroscience products and product candidates, we are commercializing a portfolio of oncology products, including Defitelio, Erwinaze, Vyxeos and Zepzelca. An inability to effectively commercialize Defitelio, Vyxeos and Zepzelca and to maximize their potential where possible through successful research and development activities could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

Our license and supply agreement with Porton Biopharma Limited, a limited liability company wholly owned by the UK Secretary of State for Health, or PBL, which includes an exclusive right to market, sell or distribute Erwinaze, an exclusive license to Erwinaze trademarks, and a non-exclusive license to PBL's manufacturing know-how, expired on December 31, 2020. Under our agreement with PBL, we have the right to sell certain Erwinaze inventory for a post-termination sales period of 12 months and retain ownership of certain data, know-how and other property interests, including the BLA for Erwinaze in the U.S. and marketing authorizations for Erwinase in several other countries. Subject to successful receipt, release and FDA approval for the batches from PBL, we expect to distribute available Erwinaze supply during the first half of 2021. In addition, if we are unable to replace the future product sales we will lose from Erwinaze with our existing or future products, our business, financial condition, results of operations and growth prospects would be materially adversely affected.

A key aspect of our growth strategy is our continued investment in our evolving and expanding research and development activities. If we are not successful in the clinical development of these or other product candidates, if we are unable to obtain regulatory approval for our product candidates in a timely manner, or at all, or if sales of an approved product do not reach the levels we expect, our anticipated revenue from our product candidates would be negatively affected, which could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

In addition to continued investment in our research and development pipeline, we intend to grow our business by acquiring or in-licensing, and developing, including with collaboration partners, additional products and product candidates that we believe are highly differentiated and have significant commercial potential. Failure to identify and acquire, in-license or develop additional products or product candidates, successfully manage the risks associated with integrating any products or product candidates into our portfolio or the risks arising from anticipated and unanticipated problems in connection with an acquisition or in-licensing, could have a material adverse effect on our business, results of operations and financial condition.

Our industry has been, and is expected to continue to be, subject to healthcare cost containment and drug pricing scrutiny by regulatory agencies in the U.S. and internationally. If healthcare policies or reforms intended to curb healthcare costs are adopted or if we experience negative publicity with respect to pricing of our products or the pricing of pharmaceutical drugs generally, the prices that we charge for our products may be affected, our commercial opportunity may be limited and/or our revenues from sales of our products may be negatively impacted. We are also subject to increasing pricing pressure and restrictions on reimbursement imposed by payors. If we fail to obtain and maintain adequate formulary positions and institutional access for newly-launched products such as Sunosi, Xywav, Zepzelca and future approved products, we will not be able to achieve a return on our investment and our business, financial condition, results of operations and growth prospects would be materially adversely affected.

Finally, business practices by pharmaceutical companies, including product formulation improvements, patent litigation settlements, and REMS programs, have increasingly drawn public scrutiny from legislators and regulatory agencies, with allegations that such programs are used as a means of improperly blocking or delaying competition. If we become the subject of any future government investigation with

respect to our business practices, including as they relate to the Xywav and Xyrem REMS, the launch of Xywav, our Xyrem patent litigation settlement agreements or otherwise, we could incur significant expense and could be distracted from operation of our business and execution of our strategy. From June to September 2020, a number of class action lawsuits were filed on behalf of purported direct and indirect Xyrem purchasers, alleging that the patent litigation settlement agreements we entered with certain generic companies violate state and federal antitrust and consumer protection laws. For additional information on these class action complaints, see Note 13, Commitments and Contingencies-Legal Proceedings of the Notes to Consolidated Financial Statements included in Part IV of this Annual Report on Form 10-K. It is possible that additional lawsuits will be filed against us making similar or related allegations. We cannot predict the outcome of these or potential additional lawsuits or government action; however, if the plaintiffs were to be successful in their claims, they may be entitled to injunctive relief or we may be required to pay significant monetary damages. Any of the foregoing risks and uncertainties could have a material adverse effect on our business, financial condition, results of operations and growth prospects. In addition, to the extent the COVID-19 pandemic continues to adversely affect our business and results of operations, it may also have the effect of heightening many of the other risks and uncertainties described above. All of these risks and uncertainties are discussed in greater detail, along with other risks and uncertainties, in "Risk Factors" in Part I, Item 1A of this Annual Report on Form 10-K.

Results of Operations

The following table presents revenues and expenses for the years ended December 31, 2020, 2019 and 2018 (in thousands except percentages):

	2020	Change	2019	Change	2018
Product sales, net	$2,346,660	10%	$2,135,601	14%	$1,869,473
Royalties and contract revenues	16,907	(35)%	26,160	22%	21,449
Cost of product sales (excluding amortization of acquired developed technologies)	148,917	16%	127,930	5%	121,544
Selling, general and administrative	854,233	16%	736,942	8%	683,530
Research and development	335,375	12%	299,726	32%	226,616
Intangible asset amortization	259,580	(27)%	354,814	76%	201,498
Impairment charges	136,139	N/A(1)	—	N/A(1)	42,896
Acquired in-process research and development	251,250	128%	109,975	N/A(1)	—
Interest expense, net	99,707	38%	72,261	(8)%	78,500
Foreign exchange loss	3,271	(44)%	5,811	(15)%	6,875
Income tax provision (benefit)	33,517	N/A(1)	(73,154)	N/A(1)	80,162
Equity in loss of investees	2,962	(28)%	4,089	86%	2,203

(1) Comparison to prior period is not meaningful.

Revenues

The following table presents product sales, royalties and contract revenues, and total revenues for the years ended December 31, 2020, 2019 and 2018 (in thousands except percentages):

	2020	Change	2019	Change	2018
Xyrem	$1,741,758	6%	$1,642,525	17%	$1,404,866
Xywav	15,264	N/A(1)	—	N/A(1)	—
Total Oxybate	1,757,022	7%	1,642,525	17%	1,404,866
Sunosi	28,333	N/A(1)	3,714	N/A(1)	—
Total Neuroscience	1,785,355	8%	1,646,239	17%	1,404,866
Defitelio/defibrotide	195,842	13%	172,938	16%	149,448
Erwinaze/Erwinase	147,136	(17)%	177,465	2%	174,739
Vyxeos	121,105	— %	121,407	20%	100,835
Zepzelca	90,380	N/A(1)	—	N/A(1)	—
Total Oncology	554,463	18%	471,810	11%	425,022
Other	6,842	(61)%	17,552	(56)%	39,585
Product sales, net	2,346,660	10%	2,135,601	14%	1,869,473
Royalties and contract revenues	16,907	(35)%	26,160	22%	21,449
Total revenues	$ 2,363,567	9%	$ 2,161,761	14%	$ 1,890,922

(1) Comparison to prior period is not meaningful.

Product Sales, Net

Xyrem product sales increased in 2020 compared to 2019 primarily due to a higher average selling price and, to a lesser extent, an increase in sales volume, partially offset by higher gross to net deductions driven by managed care plans and commercial payor contracts. Price increases were instituted in January 2020, January and July 2019 and in January 2018. Xyrem product sales volume increased by 3% in 2020 compared to 2019 primarily driven by persistence and compliance among existing patients. In 2020 new patient diagnoses and enrollments were negatively impacted by COVID-19. Xywav product sales were $15.3 million in 2020, following its U.S. launch in November 2020. Total Oxybate product sales increased in 2020 compared to 2019 primarily due to a higher average selling price and, to a lesser extent, an increase in sales volume, partially offset by higher gross to net deductions. Total Oxybate product sales volume increased by 4% in 2020 compared to 2019. Xyrem product sales increased in 2019 compared to 2018 primarily due to a higher average net selling price and, to a lesser extent, an increase in sales volume. Xyrem product sales volume increased by 6% in 2019 compared to 2018 primarily driven by an increase in the average number of patients on Xyrem. Sunosi product sales were $28.3 million in 2020 compared to $3.7 million in 2019. Sunosi launched in the U.S. in July 2019 and the European rolling launch commenced in May 2020. Defitelio/defibrotide product sales increased in 2020 compared to 2019, primarily due to higher sales volumes, partially offset by lower average net selling price due to regional mix. Defitelio/defibrotide product sales increased in 2019 compared to 2018, primarily due to higher sales volumes, partially offset by the negative impact of foreign exchange rates. Erwinaze/Erwinase product sales decreased in 2020 compared to 2019 primarily due to limited availability of supply of inventory from the manufacturer. Erwinaze/Erwinase product sales increased in 2019 compared to 2018 primarily due to higher sales volume as a result of the timing of availability of supply from the manufacturer. Ongoing supply challenges continue to negatively impact our ability to supply the market. Vyxeos product sales in 2020 were in line with 2019. Vyxeos product sales increased in 2019 compared to 2018 primarily due to volumes following the commercial launch in Europe in September 2018. Zepzelca product sales were $90.4 million in 2020, following its U.S. launch in July 2020.

Royalties and Contract Revenues

Royalties and contract revenues decreased in 2020 compared to 2019 primarily due to lower milestone revenues from out-licensing agreements. Royalties and contract revenues increased in 2019 compared to 2018 primarily due to higher contract revenues from out-licensing agreements.

Cost of Product Sales

Cost of product sales increased in 2020 and in 2019 compared to 2018, primarily due to changes in product mix and increases in net product sales. Gross margin as a percentage of net product sales was 93.7%, 94.0% and 93.5% in 2020, 2019 and 2018, respectively.

Selling, General and Administrative Expenses

Selling, general and administrative expenses increased in 2020 compared to 2019 primarily due to increased investment in sales, marketing and launch activities related to the launches of Zepzelca and Xywav in the U.S., and the continuation of the launch of Sunosi in the U.S., as well as an increase in other expenses related to the expansion of our business. Selling, general and administrative expenses increased in 2019 compared to 2018 primarily due to higher expenses related to the launch of Sunosi in the U.S., an increase in compensation-related expenses driven by higher headcount, and an increase in other expenses related to the expansion and support of our business, partially offset by the recognition of a loss contingency, including related interest, of $58.2 million in 2018 resulting from a settlement agreement with the U.S. Department of Justice, or DOJ, and the Office of Inspector General of the U.S. Department of Health and Human Services, or OIG.

Research and Development Expenses

Research and development expenses consist primarily of costs related to clinical studies and outside services, personnel expenses, milestone expenses and other research and development costs. Clinical study and outside services costs relate primarily to services performed by clinical research organizations, materials and supplies, and other third party fees. Personnel expenses relate primarily to salaries, benefits and share-based compensation. Other research and development expenses primarily include overhead allocations consisting of various support and facilities-related costs. We do not track fully-burdened research and development expenses on a project-by-project basis. We manage our research and development expenses by identifying the research and development activities that we anticipate will be performed during a given period and then prioritizing efforts based on our assessment of which development activities are important to our business and have a reasonable probability of success, and by dynamically allocating resources accordingly. We also continually review our development pipeline projects and the status of their development and, as necessary, reallocate resources among our development pipeline projects that we believe will best support the future growth of our business.

The following table provides a breakout of our research and development expenses by major categories of expense (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Clinical studies and outside services	$169,904	$133,042	$117,903
Personnel expenses	127,794	100,090	71,158
Milestone expense	1,000	26,000	11,000
Other	36,677	40,594	26,555
Total	$335,375	$299,726	$226,616

Research and development expenses increased by $35.6 million in 2020 compared to 2019. Clinical studies and outside services costs increased in 2020 compared to 2019 primarily due to the progress made on our clinical programs, including JZP-458 and JZP-385. Personnel expenses increased by $27.7 million in 2020 compared to 2019, primarily due to increased headcount in support of our development programs. Milestone expense decreased by $25.0 million in 2020 compared to 2019. Milestone expense of $26.0 million in 2019 related to milestone payments made under our license and option agreement with Ligand. Research and development expenses increased by $73.1 million in 2019 compared to 2018. Clinical studies and outside services costs increased in 2019 compared to 2018 primarily due to an increase in expenses related to our ongoing preclinical and clinical development programs and support of partner programs. Personnel expenses increased by $28.9 million in 2019 compared to 2018, primarily due to increased headcount in support of our development programs. Milestone expense increased by $15.0 million in 2019 compared to 2018. Milestone expense of $11.0 million in 2018 related to milestone payments following FDA acceptance of our NDA for Sunosi.

Intangible Asset Amortization

Intangible asset amortization decreased in 2020 compared to 2019 primarily due to the amortization of the cost of the priority review voucher, or PRV, of $111.1 million in full in 2019 following the notification to FDA of our intention to redeem it in the NDA submission for Xywav, partially offset by the commencement of amortization of the Zepzelca intangible asset upon FDA approval in June 2020. Intangible asset amortization increased in 2019 compared to 2018 primarily due to the amortization of the cost of the PRV of $111.1 million and the reduction in the estimated remaining useful life of the Erwinaze intangible asset resulting from the contract termination notice we received from PBL in February 2019.

Impairment Charges

In 2020, we recorded an acquired in-process research and development, or IPR&D, asset impairment charge of $136.1 million following the decision to stop enrollment in our Phase 3 clinical study of defibrotide for the prevention of VOD due to a determination that the study is highly unlikely to reach one of its primary endpoints.

In June 2018, we entered into an asset purchase agreement, or APA, with TerSera Therapeutics LLC, or TerSera, pursuant to which TerSera agreed to purchase substantially all of the assets held by us related to Prialt. In connection with the entry into the APA, which was subsequently amended, we reclassified the Prialt assets to be transferred to TerSera as assets held for sale and recorded these assets at fair value, less estimated sales costs, resulting in the recognition of an impairment charge of $42.9 million in 2018. The transaction closed in September 2018.

Acquired In-Process Research and Development

Acquired IPR&D expense in 2020 primarily related to an upfront payment of $200.0 million to PharmaMar in connection with our license agreement for Zepzelca. In 2019, acquired IPR&D expense primarily related to an upfront payment of $56.0 million to Codiak in connection with our strategic collaboration agreement and the value attributed to JZP-385 in the acquisition of Cavion, Inc., or Cavion.

Interest Expense, Net

Interest expense, net increased by $27.4 million in 2020 compared to 2019, primarily due to higher non-cash interest expense following the issuance of the 2026 Notes, lower interest income and a loss on extinguishment of debt related to the partial repurchases of the 2021 Notes. Interest expense, net decreased by $6.2 million in 2019 compared to 2018, primarily due to higher interest income.

Foreign Exchange Loss

The foreign exchange loss is primarily related to the translation of euro-denominated net monetary liabilities, primarily intercompany balances, held by subsidiaries with a U.S. dollar functional currency and related foreign exchange forward contracts not designated as hedging instruments.

Income Tax Provision (Benefit)

Our income tax provision was $33.5 million and $80.2 million in 2020 and 2018, respectively, and our income tax benefit was $73.2 million in 2019. The income tax benefit in 2019 included a discrete tax benefit of $112.3 million resulting from an intra-entity intellectual property asset transfer. The tax benefit, which represents a deferred future benefit, was recorded as a deferred tax asset. The effective tax rates for 2020, 2019 and 2018 were 12.2%, (16.1)% and 15.1%, respectively. The effective tax rate for 2020 was lower than the Irish statutory rate of 12.5% primarily due to the impact of originating tax credits and deductions on subsidiary equity, partially offset by income taxable at a higher rate than the Irish statutory rate, the disallowance of certain interest deductions and a provision for a proposed settlement reached with the French tax authorities. The effective tax rate for 2019 was lower than the Irish statutory rate of 12.5% primarily due to the impact of the intra-entity intellectual property asset transfer. The effective tax rate for 2018 was higher than the Irish statutory rate of 12.5%, primarily due to income taxable at a rate higher than the Irish statutory rate and unrecognized tax benefits, partially offset by the release of reserves related to unrecognized tax benefits from the expiration of a statute of limitation, originating tax credits and the release of a valuation allowance held against certain foreign net operating losses, or NOLs. The increase in the effective tax rate in 2020 compared to 2019 was primarily due to the impact of the intra-entity intellectual property asset transfer. Excluding this effect, the increase in the effective tax rate for 2020 compared to 2019 was primarily due to the benefit recognized in 2019 from the application of the Italian patent box incentive regime 2015 through 2019 and the impact of the disallowance of certain interest deductions and a provision for a proposed settlement reached with the French tax authorities. The decrease in the effective tax rate in 2019 compared to 2018 was primarily due to the impact of the intra-entity intellectual property asset transfer. Excluding this effect, the decrease in the effective tax rate in 2019 compared to 2018 was primarily due to the benefit from the application of the Italian patent box incentive regime for 2015 through 2019.

Equity in Loss of Investees

Equity in loss of investees relates to our share in the net loss of companies in which we have made investments accounted for under the equity method of accounting.

Liquidity and Capital Resources

As of December 31, 2020, we had cash, cash equivalents and investments of $2.1 billion, borrowing availability under our revolving credit facility of $1.6 billion and a long-term debt principal balance of $2.4 billion. Our long-term debt included $584.3 million aggregate principal amount term loan, $218.8 million principal amount of the 2021 Notes, $575.0 million principal amount of our 1.50% exchangeable senior notes due 2024, or the 2024 Notes, and $1.0 billion principal amount of the 2026 Notes. During 2020, 2019 and 2018, we generated cash flows from operations of $899.6 million, $776.4 million and $798.9 million, respectively, and we expect to continue to generate positive cash flow from operations.

We believe that our existing cash, cash equivalents and investments balances, cash we expect to generate from operations and funds available under our revolving credit facility will be sufficient to fund our operations and to meet our existing obligations for the foreseeable future. The adequacy of our cash resources depends on many assumptions, including primarily our assumptions with respect to product sales and expenses, as well as the other factors set forth in "Risk Factors" in Part I, Item 1A of this Annual Report on Form 10-K under the headings "Risks Related to our Lead Products and Product Candidates" and *"To continue to grow our business, we will need to commit substantial resources, which could result in future losses or otherwise limit our opportunities or affect our ability to operate and grow our business."* Our assumptions may prove to be wrong or other factors may adversely affect our business, and as a result we could exhaust or significantly decrease our available cash resources, and we may not be able to generate sufficient cash to service our debt obligations which could, among other things, force us to raise additional funds and/or force us to reduce our expenses, either of which could have a material adverse effect on our business.

To continue to grow our business over the longer term, we plan to commit substantial resources to product acquisition and in-licensing, product development, clinical trials of product candidates and expansion of our commercial, development, manufacturing and other operations. In this regard, we have evaluated and expect to continue to evaluate a wide array of strategic transactions as part of our strategy to acquire or in-license and develop additional products and product candidates. Acquisition opportunities that we pursue could materially affect our liquidity and capital resources and may require us to incur additional indebtedness, seek equity capital or both. In

addition, we may pursue new operations or continue the expansion of our existing operations. Accordingly, we expect to continue to opportunistically seek access to additional capital to license or acquire additional products, product candidates or companies to expand our operations or for general corporate purposes. Raising additional capital could be accomplished through one or more public or private debt or equity financings, collaborations or partnering arrangements. However, the COVID-19 pandemic continues to rapidly evolve and has resulted in significant volatility in the global financial markets. If the disruption persists and deepens, we could experience an inability to access additional capital or an impact on liquidity, which could in the future negatively affect our capacity for certain corporate development transactions or our ability to make other important, opportunistic investments. In addition, any equity financing would be dilutive to our shareholders, and the consent of the lenders under the amended credit agreement could be required for certain financings.

In November 2016, our board of directors authorized a share repurchase program and as of December 31, 2020 had authorized the repurchase of up to $1.5 billion, exclusive of any brokerage commissions. Under this program, which has no expiration date, we may repurchase ordinary shares from time to time on the open market. The timing and amount of repurchases will depend on a variety of factors, including the price of our ordinary shares, alternative investment opportunities, restrictions under the amended credit agreement, corporate and regulatory requirements and market conditions. The share repurchase program may be modified, suspended or discontinued at any time without prior notice. In 2020, we spent a total of $146.5 million to repurchase 1.2 million of our ordinary shares at an average total purchase price, including brokerage commissions, of $121.98 per share. In 2019, we spent a total of $301.5 million to repurchase 2.3 million of our ordinary shares at an average total purchase price, including brokerage commissions, of $133.97 per share. All ordinary shares repurchased were canceled. As of December 31, 2020, the remaining amount authorized under the share repurchase program was $431.2 million.

The following table shows a summary of our cash flows for the periods indicated (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Net cash provided by operating activities	$ 899,648	$ 776,401	$ 798,904
Net cash used in investing activities	(1,007,670)	(155,300)	(394,487)
Net cash provided by (used in) financing activities	528,073	(293,745)	(479,130)
Effect of exchange rates on cash and cash equivalents	374	366	(1,700)
Net increase (decrease) in cash and cash equivalents	$ 420,425	$ 327,722	$ (76,413)

Operating activities

Net cash provided by operating activities increased by $123.2 million in 2020 compared to 2019, primarily due to:

- A decrease in net outflow related to changes in operating assets and liabilities including the impact of a $58.6 million payment related to a civil settlement agreement with the DOJ and the OIG in 2019 together with an increase in accounts receivable of $38.6 million due to higher product sales together with the timing of receipts from customers and other working capital movements.

Net cash provided by operating activities decreased by $22.5 million in 2019 compared to 2018, primarily due to:

- An increase in net outflow related to changes in operating assets and liabilities including the impact of the $58.6 million payment related to the civil settlement agreement with the DOJ and the OIG in 2019 together with the timing of receipts from customers and other working capital movements.

Investing activities

Net cash used in investing activities increased by $852.4 million in 2020 compared to 2019, primarily due to the following:

- $710.6 million net increase in the acquisition of investments, primarily time deposits;
- $189.6 million increase in upfront payments for acquired IPR&D primarily driven by the $200.0 million payment under our license agreement with PharmaMar and the $35.0 million payment under our asset purchase and exclusive license agreement with SpringWorks in 2020, compared to 2019 which included a payment of $56.0 million under our strategic collaboration agreement with Codiak; partially offset by
- The impact of consideration, net of cash acquired of $55.1 million related to our acquisition of Cavion in 2019.

Net cash used in investing activities decreased by $239.2 million in 2019 compared to 2018, primarily due to the following:

- $378.8 million net decrease in the acquisition of investments, primarily time deposits; partially offset by
- $61.7 million increase in upfront payments for acquired IPR&D primarily driven by the upfront payment of $56.0 million to Codiak in 2019;
- The impact of consideration, net of cash acquired of $55.1 million related to our acquisition of Cavion in 2019; and
- $33.7 million decrease in net proceeds from the sale of assets related to the sale of our rights to Prialt to TerSera in September 2018.

Financing activities

Net cash provided by (used in) financing activities increased by $821.8 million in 2020 compared to 2019, primarily due to:

- The receipt of $981.4 million in net proceeds from the issuance of the 2026 Notes, partially offset by $356.2 million of payments for partial repurchases of the 2021 Notes;
- A decrease of $154.9 million in share repurchases; and
- An increase of $41.9 million in proceeds from employee equity incentive and purchase plans.

Net cash provided by (used in) financing activities decreased by $185.4 million in 2019 compared to 2018, primarily due to:

- A decrease of $222.2 million in share repurchases; partially offset by
- A decrease of $35.5 million in proceeds from employee equity incentive and purchase plans.

Credit Agreement

On June 18, 2015, Jazz Pharmaceuticals plc, as guarantor, and certain of our wholly owned subsidiaries, as borrowers, entered into the 2015 credit agreement that provided for a $750.0 million principal amount term loan, which was drawn in full at closing, and a $750.0 million revolving credit facility, of which $160.0 million was drawn at closing and subsequently repaid. We used the proceeds from initial borrowings under the 2015 credit agreement to repay in full the $893.1 million principal amount of term loans outstanding under a previous credit agreement, and to pay related fees and expenses. The previous credit agreement was terminated upon repayment of the term loans outstanding thereunder.

On July 12, 2016, Jazz Pharmaceuticals plc, as guarantor, and certain of our wholly owned subsidiaries, as borrowers, entered into Amendment No. 1 to our 2015 credit agreement to provide for a revolving credit facility of $1.25 billion and a $750.0 million term loan facility. We used the proceeds of $1.0 billion of loans under the revolving credit facility, together with cash on hand, to fund the Celator Acquisition.

On June 7, 2018, we entered into the second amendment to the 2015 credit agreement to provide for a revolving credit facility of $1.6 billion, which replaced the existing revolving credit facility of $1.25 billion, and a new $667.7 million term loan facility, which replaced the $750.0 million term loan facility, of which $584.3 million principal amount was outstanding as of December 31, 2020. We refer to the 2015 credit agreement as amended by the first and second amendments as the amended credit agreement in this report. We expect to use the proceeds from future loans under the revolving credit facility, if any, for permitted capital expenditures and acquisitions, to provide for ongoing working capital requirements and for other general corporate purposes.

Under the amended credit agreement, the term loan matures on June 7, 2023 and the revolving credit facility terminates, and any loans outstanding thereunder become due and payable, on June 7, 2023.

Borrowings under the amended credit agreement bear interest, at our option, at a rate equal to either (a) the LIBOR rate, plus an applicable margin ranging from 1.375% to 1.750% per annum, based upon our secured leverage ratio, or (b) the prime lending rate, plus an applicable margin ranging from 0.375% to 0.750% per annum, based upon our secured leverage ratio. The revolving credit facility has a commitment fee payable on the undrawn amount ranging from 0.25% to 0.35% per annum based upon our secured leverage ratio.

As of December 31, 2020, the interest rate on the term loan was 1.52% and the effective interest rate was 3.66%. As of December 31, 2020, we had undrawn amounts under our revolving credit facility totaling $1.6 billion.

Jazz Pharmaceuticals plc and certain of our wholly owned subsidiaries are borrowers under the amended credit agreement. The borrowers' obligations under the amended credit agreement and any hedging or cash management obligations entered into with a lender are guaranteed on a senior secured basis by Jazz Pharmaceuticals plc and certain of our subsidiaries (including the issuer of the 2021 Notes, the 2024 Notes and the 2026 Notes, together referred to as the Exchangeable Senior Notes as described below) and are secured by substantially all of Jazz Pharmaceuticals plc's, the borrowers' and the guarantor subsidiaries' assets.

We may make voluntary prepayments of principal at any time without payment of a premium. We are required to make mandatory prepayments of the term loan (without payment of a premium) with (1) net cash proceeds from certain non-ordinary course asset sales (subject to other exceptions), (2) net cash proceeds from issuances of debt (other than certain permitted debt), and (3) casualty proceeds and condemnation awards (subject to other exceptions).

Principal repayments of the term loan, which are due quarterly, are equal to 5.0% per annum of the principal amount outstanding on June 7, 2018 of $667.7 million, with any remaining balance payable on the maturity date.

The amended credit agreement contains financial covenants that require Jazz Pharmaceuticals plc and our restricted subsidiaries to not (a) exceed a maximum secured net leverage ratio or (b) fall below a cash interest coverage ratio. As of December 31, 2020, we were in compliance with these financial covenants.

Exchangeable Senior Notes

2026 Notes. In the second quarter of 2020, Jazz Investments I Limited, our wholly owned subsidiary, completed a private placement of $1.0 billion principal amount of the 2026 Notes. We used a portion of the net proceeds from this offering to repurchase for cash $332.9 million aggregate principal amount of the 2021 Notes through privately-negotiated transactions concurrently with the offering of the 2026 Notes. Interest on the 2026 Notes is payable semi-annually in cash in arrears on June 15 and December 15 of each year, beginning on December 15, 2020, at a rate of 2.00% per year. In certain circumstances, we may be required to pay additional amounts as a result of any applicable tax withholding or deductions required in respect of payments on the 2026 Notes. The 2026 Notes mature on June 15, 2026, unless earlier exchanged, repurchased or redeemed.

The holders of the 2026 Notes have the ability to require us to repurchase all or a portion of their 2026 Notes for cash in the event we undergo certain fundamental changes, such as specified change of control transactions, our liquidation or dissolution or the delisting of our ordinary shares from any of The New York Stock Exchange, The Nasdaq Global Market, The Nasdaq Global Select Market or The Nasdaq Capital Market (or any of their respective successors). Additionally, the terms and covenants in the indenture related to the 2026 Notes include certain events of default after which the 2026 Notes may be due and payable immediately. Prior to June 15, 2026, we may redeem the 2026 Notes, in whole but not in part, subject to compliance with certain conditions, if we have, or on the next interest payment date would, become obligated to pay to the holder of any 2026 Notes additional amounts as a result of certain tax-related events. We also may redeem the 2026 Notes on or after June 20, 2023 and prior to March 15, 2026, in whole or in part, if the last reported sale price per ordinary share has been at least 130% of the exchange price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period ending on, and including, the trading day immediately preceding the date on which we provide the notice of redemption.

The 2026 Notes are exchangeable at an initial exchange rate of 6.4182 ordinary shares per $1,000 principal amount of 2026 Notes, which is equivalent to an initial exchange price of approximately $155.81 per ordinary share. Upon exchange, the 2026 Notes may be settled in cash, ordinary shares or a combination of cash and ordinary shares, at our election. Our intent and policy is to settle the principal amount of the 2026 Notes in cash upon exchange. The exchange rate will be subject to adjustment in some events but will not be adjusted for any accrued and unpaid interest. In addition, following certain make-whole fundamental changes occurring prior to the maturity date of the 2026 Notes or upon our issuance of a notice of redemption, we will in certain circumstances increase the exchange rate for holders of the 2026 Notes who elect to exchange their 2026 Notes in connection with that make-whole fundamental change or during the related redemption period. Prior to March 15, 2026, the 2026 Notes will be exchangeable only upon satisfaction of certain conditions and during certain periods, and thereafter, at any time until the close of business on the second scheduled trading day immediately preceding the maturity date.

2024 Notes. In the third quarter of 2017, our wholly owned subsidiary Jazz Investments I Limited, completed a private placement of $575.0 million principal amount of 2024 Notes. We used the net proceeds from this offering to repay $500.0 million in outstanding loans under the revolving credit facility under the amended credit agreement and to pay related fees and expenses. We used the remainder of the net proceeds for general corporate purposes. The 2024 Notes are senior unsecured obligations of Jazz Investments I Limited and are fully and unconditionally guaranteed on a senior unsecured basis by Jazz Pharmaceuticals plc and will rank pari passu in right of payment

with the existing 2021 Notes. Interest on the 2024 Notes is payable semi-annually in cash in arrears on February 15 and August 15 of each year, beginning on February 15, 2018, at a rate of 1.50% per year. In certain circumstances, we may be required to pay additional amounts as a result of any applicable tax withholding or deductions required in respect of payments on the 2024 Notes. The 2024 Notes mature on August 15, 2024, unless earlier exchanged, repurchased or redeemed.

The holders of the 2024 Notes have the ability to require us to repurchase all or a portion of their 2024 Notes for cash in the event we undergo certain fundamental changes, such as specified change of control transactions, our liquidation or dissolution or the delisting of our ordinary shares from The Nasdaq Global Select Market. Prior to August 15, 2024, we may redeem the 2024 Notes, in whole but not in part, subject to compliance with certain conditions, if we have, or on the next interest payment date would, become obligated to pay to the holder of any 2024 Notes additional amounts as a result of certain tax-related events. We also may redeem the 2024 Notes on or after August 20, 2021, in whole or in part, if the last reported sale price per ordinary share has been at least 130% of the exchange price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period ending on, and including, the trading day immediately preceding the date on which we provide the notice of redemption.

The 2024 Notes are exchangeable at an initial exchange rate of 4.5659 ordinary shares per $1,000 principal amount of 2024 Notes, which is equivalent to an initial exchange price of approximately $219.02 per ordinary share. Upon exchange, the 2024 Notes may be settled in cash, ordinary shares or a combination of cash and ordinary shares, at our election. Our intent and policy is to settle the principal amount of the 2024 Notes in cash upon exchange. The exchange rate will be subject to adjustment in some events but will not be adjusted for any accrued and unpaid interest. In addition, following certain make-whole fundamental changes occurring prior to the maturity date of the 2024 Notes or upon our issuance of a notice of redemption, we will in certain circumstances increase the exchange rate for holders of the 2024 Notes who elect to exchange their 2024 Notes in connection with that make-whole fundamental change or during the related redemption period. Prior to May 15, 2024, the 2024 Notes will be exchangeable only upon satisfaction of certain conditions and during certain periods, and thereafter, at any time until the close of business on the second scheduled trading day immediately preceding the maturity date.

2021 Notes. In August 2014, Jazz Investments I Limited completed a private placement of $575.0 million principal amount of the 2021 Notes. The 2021 Notes are senior unsecured obligations of Jazz Investments I Limited and are fully and unconditionally guaranteed on a senior unsecured basis by Jazz Pharmaceuticals plc. Interest on the 2021 Notes is payable semi-annually in cash in arrears on February 15 and August 15 of each year, beginning on February 15, 2015, at a rate of 1.875% per year. In certain circumstances, we may be required to pay additional amounts as a result of any applicable tax withholding or deductions required in respect of payments on the 2021 Notes. The 2021 Notes mature on August 15, 2021, unless earlier exchanged, repurchased or redeemed.

The holders of the 2021 Notes have the ability to require us to repurchase all or a portion of their 2021 Notes for cash in the event we undergo certain fundamental changes, such as specified change of control transactions, our liquidation or dissolution or the delisting of our ordinary shares from The Nasdaq Global Select Market. Prior to August 15, 2021, we may redeem the 2021 Notes, in whole but not in part, subject to compliance with certain conditions, if we have, or on the next interest payment date would, become obligated to pay to the holder of any 2021 Note additional amounts as a result of certain tax-related events. We also may redeem the 2021 Notes on or after August 20, 2018, in whole or in part, if the last reported sale price per ordinary share has been at least 130% of the exchange price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period ending on, and including, the trading day immediately preceding the date on which we provide the notice of redemption.

The 2021 Notes are exchangeable at an initial exchange rate of 5.0057 ordinary shares per $1,000 principal amount of 2021 Notes, which is equivalent to an initial exchange price of approximately $199.77 per ordinary share. Upon exchange, the 2021 Notes may be settled in cash, ordinary shares or a combination of cash and ordinary shares, at our election. Our intent and policy is to settle the principal amount of the 2021 Notes in cash upon exchange. The exchange rate will be subject to adjustment in some events but will not be adjusted for any accrued and unpaid interest. In addition, following certain make-whole fundamental changes occurring prior to the maturity date of the 2021 Notes or upon our issuance of a notice of redemption, we will in certain circumstances increase the exchange rate for holders of the 2021 Notes who elect to exchange their 2021 Notes in connection with that make-whole fundamental change or during the related redemption period. Prior to February 15, 2021, the 2021 Notes will be exchangeable only upon satisfaction of certain conditions and during certain periods, and thereafter, at any time until the close of business on the second scheduled trading day immediately preceding the maturity date.

Concurrently with the offering of the 2026 Notes, we repurchased $332.9 million aggregate principal amount of the 2021 Notes. In the third quarter of 2020, we repurchased a further $23.3 million aggregate principal amount of the 2021 Notes. As of December 31, 2020, the principal amount of the 2021 Notes remaining was $218.8 million.

Contractual Obligations

The table below presents a summary of our contractual obligations as of December 31, 2020 (in thousands):

Contractual Obligations (1)	Payments Due by Period				
	Total	Less than 1 Year	1-3 Years	3-5 Years	More than 5 years
Term loan—principal	$ 584,268	$ 33,387	$550,881	$ —	$ —
Term loan—interest (2)	23,348	11,632	11,716	—	—
Exchangeable Senior Notes—principal	1,793,812	218,812	—	575,000	1,000,000
Exchangeable Senior Notes—interest (3)	148,603	32,728	57,250	48,625	10,000
Revolving credit facility—commitment fee (4)	9,856	4,056	5,800	—	—
Commitment to equity method investees	7,400	7,000	400	—	—
Purchase and other obligations (5)	128,669	111,987	16,265	378	39
Operating lease obligations (6)	196,341	22,393	44,772	42,681	86,495
Total	$2,892,297	$441,995	$687,084	$666,684	$1,096,534

(1) This table does not include potential future milestone payments or royalty obligations to third parties under asset purchase, product development, license and other agreements as the timing and likelihood of such milestone payments are not known, and, in the case of royalty obligations, as the amount of such obligations are not estimable. Our contingent obligations to third parties, in the form of development, regulatory and sales-based milestone payments, as of December 31, 2020 included $1,025.0 million across five targets under our strategic collaboration agreement with Codiak, $707.0 million under our amended license agreement with PharmaMar, $613.0 million under asset purchase and collaboration agreements with Redx, $375.0 million under the asset purchase and exclusive license agreement with SpringWorks, $260.0 million in connection with our acquisition of Cavion, $165.0 million to Aerial BioPharma LLC and SK Biopharmaceuticals Co. Ltd in connection with our acquisition of the rights to Sunosi, $162.5 million under our license agreement with Ligand and $531.5 million related to other agreements.

(2) Estimated interest for variable rate debt was calculated based on the interest rates in effect as of December 31, 2020. The interest rate for our term loan borrowing was 1.52% as of December 31, 2020. Interest that is fixed, associated with our interest rate swaps, is calculated based on the fixed interest swap rate as of December 31, 2020.

(3) We used the fixed interest rates of 1.875% on the 2021 Notes, 1.5% on the 2024 Notes and 2.0% on the 2026 Notes to estimate interest owed as of December 31, 2020 until the respective final maturity dates of these notes.

(4) Our revolving credit facility has a commitment fee payable on the undrawn amount ranging from 0.25% to 0.35% per annum based upon our secured leverage ratio. In the table above, we used a rate of 0.25% and assumed undrawn amounts of $1.6 billion as of December 31, 2020 to estimate commitment fees owed.

(5) Consists primarily of non-cancelable commitments to our third party manufacturers and for marketing campaigns.

(6) Consists primarily of the minimum lease payments for our office buildings and automobile lease payments for our sales force. Operating expenses associated with our leased office buildings are not included in table above.

We do not provide for Irish income taxes on undistributed earnings of our foreign operations that are intended to be indefinitely reinvested in our foreign subsidiaries. Temporary differences related to foreign subsidiaries that are considered indefinitely reinvested totaled approximately $1.9 billion at December 31, 2020. In the event of the distribution of those earnings in the form of dividends, a sale of the subsidiaries, or certain other transactions, we may be liable for income taxes, subject to an adjustment, if any, for foreign tax credits and foreign withholding taxes payable to certain foreign tax authorities. As of December 31, 2020, it is not practicable to determine the amount of the income tax liability related to these undistributed earnings due to a variety of factors.

In addition, our liability for unrecognized tax benefits has been excluded from the above contractual obligations table as the nature and timing of future payments, if any, cannot be reasonably estimated. As of December 31, 2020, our liability for gross unrecognized tax benefits amounted to $146.6 million (excluding interest and penalties). We do not anticipate that the amount of our existing liability for unrecognized tax benefits will significantly change in the next twelve months.

Critical Accounting Policies and Significant Estimates

A critical accounting policy is one that is both important to the portrayal of our financial condition and results of operations and requires management's most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. While our significant accounting policies are described in more detail in Note 2, Summary of Significant Accounting Policies, of the Notes to Consolidated Financial Statements included in Part IV of this Annual Report on Form 10-K, we believe the following accounting estimates and policies to be critical.

Revenue Recognition

Revenues are recognized when control of the promised goods or services is transferred to our customers, in an amount that reflects the consideration we expect to be entitled to in exchange for those goods or services.

Product Sales, Net

Product sales revenue is recognized when control has transferred to the customer, which occurs at a point in time, which is typically on delivery to the customer or, in the case of products that are subject to consignment agreements, when the customer removes product from our consigned inventory location for shipment directly to a patient.

A significant portion of our net product revenues is derived from sales of Xyrem. We sell Xyrem in the U.S. to a single central pharmacy, Express Scripts Specialty Distribution Services, Inc., or ESSDS. In 2020, sales of Xyrem to Express Scripts accounted for 74% of our net product sales. We recognize revenues from sales of Xyrem within the U.S. when control has transferred to the customer, which occurs when ESSDS removes product from our consigned inventory location at its facility for shipment directly to a patient. We do not accept returns of Xyrem from ESSDS.

Items Deducted from Gross Product Sales. Revenues from sales of products are recorded net of government rebates and rebates under managed care plans and commercial payor contracts, estimated allowances for sales returns, government chargebacks, prompt payment discounts, patient coupon programs, and specialty distributor and wholesaler fees. Calculating certain of these items involves estimates and judgments based on sales or invoice data, contractual terms, historical utilization rates, new information regarding changes in applicable regulations and guidelines that would impact the amount of the actual rebates, our expectations regarding future utilization rates and channel inventory data. We review the adequacy of our provisions for sales deductions on a quarterly basis. Amounts accrued for sales deductions are adjusted when trends or significant events indicate that adjustment is appropriate and to reflect actual experience. Because we derive a significant portion of our revenues from sales of Xyrem in the U.S. to one specialty pharmacy customer, ESSDS, we have a much higher level of knowledge about each prescription than if we sold the product through the normal pharmaceutical wholesaler channel as we do with most of our other products. The most significant items deducted from gross product sales where we exercise judgment are rebates, sales returns and chargebacks.

The following table presents the activity and ending balances for our sales-related accruals and allowances (in thousands):

	Rebates Payable	Sales Returns Reserve	Chargebacks	Discounts and Distributor Fees	Total
Balance at December 31, 2017	$ 77,162	$ 3,651	$ 3,663	$ 4,309	$ 88,785
Provision, net	160,648	1,203	41,387	42,956	246,194
Payments/credits	(156,696)	(2,344)	(44,642)	(41,808)	(245,490)
Balance at December 31, 2018	81,114	2,510	408	5,457	89,489
Provision, net	153,930	5,519	41,864	56,041	257,354
Payments/credits	(152,191)	(4,567)	(41,139)	(47,378)	(245,275)
Balance at December 31, 2019	82,853	3,462	1,133	14,120	101,568
Provision, net	288,052	18,448	45,550	69,332	421,382
Payments/credits	(260,020)	(3,542)	(41,390)	(66,659)	(371,611)
Balance at December 31, 2020	$ 110,885	$18,368	$ 5,293	$ 16,793	$ 151,339

Total items deducted from gross product sales were $421.4 million, $257.4 million and $246.2 million, or 15.2%, 10.8% and 11.6% as a percentage of gross product sales, in 2020, 2019 and 2018, respectively. Included in these amounts are immaterial adjustments related to prior-year sales due to changes in estimates. Such amounts represented less than 1% of net product sales for each of the years ended December 31, 2020, 2019 and 2018.

Rebates

We are subject to rebates on sales made under governmental and managed-care pricing programs and commercial payor contracts in the U.S. The largest of these rebates is associated with sales covered by Medicaid. We participate in state government-managed Medicaid programs as well as certain other qualifying federal and state government programs under the terms of which discounts and rebates are provided to participating government entities. We offer rebates and discounts to managed health care organizations and commercial payors in the U.S. In estimating our provisions for rebates, we consider relevant statutes with respect to governmental pricing

programs and contractual sales terms with managed-care providers, commercial payors and group purchasing organizations. We estimate the rebate provision based on historical utilization rates, historical payment experience, new information regarding changes in regulations and guidelines that would impact the amount of the actual rebates, our expectations regarding future utilization rates and channel inventory data obtained from our major U.S. wholesalers in accordance with our inventory management agreements. Estimating these rebates is complex, in part due to the time delay between the date of sale and the actual settlement of the liability. We believe that the methodology we use to estimate rebates on product sales made under governmental and managed-care pricing programs is reasonable and appropriate given current facts and circumstances. However, estimates may vary from actual experience.

Rebates were $288.1 million, $153.9 million and $160.6 million, or 10.4%, 6.5% and 7.6% as a percentage of gross product sales, in 2020, 2019 and 2018, respectively. Rebates as a percentage of gross product sales increased in 2020 compared to 2019 primarily due to the entry into additional contracts with commercial payors. Rebates as a percentage of gross product sales decreased in 2019 compared to 2018 primarily due to a decrease in the Tricare per unit rebate amount. We expect that rebates will continue to significantly impact our reported net sales. Rebates as a percentage of gross product sales are expected to increase in 2021 compared to 2020, primarily due to commercial rebate rate increases.

Sales returns

For certain products, we allow customers to return product within a specified period before and after the applicable expiration date and issue credits which may be applied against existing or future invoices. We account for sales returns as a reduction in net revenue at the time a sale is recognized by establishing an accrual in an amount equal to the estimated value of products expected to be returned. The sales return accrual is estimated principally based on historical experience, the level and estimated shelf life of inventory in the distribution channel, our return policy and expected market events including generic competition.

Sales returns were $18.4 million, $5.5 million and $1.2 million, or 0.7%, 0.2% and 0.1% as a percentage of gross product sales in 2020, 2019 and 2018, respectively. The increase in sales returns in 2020 compared to 2019 was due to the commencement of a product returns policy for certain products in 2020. Sales returns as a percentage of gross product sales did not change materially in 2020 and 2019 compared to the immediately preceding years. Sales returns as a percentage of gross product sales are not expected to change materially in 2021 compared to 2020.

Chargebacks

We participate in chargeback programs with a number of entities, principally Federal Supply Schedule, Group Purchasing Organizations, and other public parties, under which pricing on products below wholesalers' list prices is provided to participating entities. These entities purchase product through wholesalers at the contract price and the wholesalers charge back to us the difference between their acquisition cost and the lower negotiated price. We record the difference as allowances against accounts receivable. We determine our estimate of the chargebacks provision primarily based on historical experience on a product and program basis, current contract prices under the chargeback programs and channel inventory data.

Chargebacks were $45.6 million, $41.9 million and $41.4 million, or 1.6%, 1.8% and 2.0% as a percentage of gross product sales in 2020, 2019 and 2018, respectively. Chargebacks as a percentage of gross product sales did not change materially in 2020 and 2019 compared to the immediately preceding years. We expect that chargebacks will continue to significantly impact our reported net product sales. Chargebacks as a percentage of gross product sales are not expected to change materially in 2021 compared to 2020.

Discounts and distributor fees

Discounts and distributor fees comprise prompt payment discounts, patient coupon programs and specialty distributor and wholesaler fees. We offer customers a cash discount on gross product sales as an incentive for prompt payment. We estimate provisions for prompt pay discounts based on contractual sales terms with customers and historical payment experience. To help patients afford our products, we have various programs to assist them, including patient assistance programs, a free product voucher program and co-pay coupon programs for certain products. We estimate provisions for these programs primarily based on expected program utilization, adjusted as necessary to reflect our actual experience on a product and program basis. Specialty distributor and wholesaler fees comprise fees for distribution of our products. We estimate provisions for distributor and wholesaler fees primarily based on sales volumes and contractual terms with our distributors.

Discounts and distributor fees were $69.3 million, $56.0 million and $43.0 million, or 2.5%, 2.4% and 2.0% as a percentage of gross product sales in 2020, 2019 and 2018, respectively. Discounts and distributor fees as a percentage of gross product sales did not change

materially in 2020 and 2019 compared to the immediately preceding years. We expect that discounts and distributor fees as a whole will continue to significantly impact our reported net product sales. Discounts and distributor fees as a percentage of gross product sales are expected to increase in 2021 compared to 2020, primarily due to wholesaler fee increases.

Goodwill and Intangible Assets

Goodwill

Goodwill represents the excess of the acquisition consideration over the fair value of assets acquired and liabilities assumed. We test goodwill for impairment annually in October and when events or changes in circumstances indicate that the carrying value may not be recoverable. We have determined that we operate in a single segment and have a single reporting unit associated with the development and commercialization of pharmaceutical products. In performing the annual impairment test, the fair value of the reporting unit is compared to its corresponding carrying value, including goodwill. If the carrying value exceeds the fair value of the reporting unit an impairment loss will be recognized for the amount by which the reporting unit's carrying amount exceeds its fair value, not to exceed the carrying amount of goodwill. We have determined the fair value of our single reporting unit to be equal to our market capitalization, as determined by our traded share price, plus a control premium. The control premium used was based on a review of such premiums identified in recent acquisitions of companies of similar size and in similar industries. We performed our annual goodwill impairment test in October 2020 and concluded that goodwill was not impaired as the fair value of the reporting unit significantly exceeded its carrying amount, including goodwill. As of December 31, 2020, we had $958.3 million of goodwill resulting from acquisitions accounted for as business combinations.

Intangible Assets

We have acquired a number of intangible assets, including intangible assets related to currently marketed products (developed technology) and intangible assets related to product candidates (IPR&D). When significant identifiable intangible assets are acquired, we engage an independent third party valuation firm to assist in determining the fair values of these assets as of the acquisition date. Discounted cash flow models are typically used in these valuations, which require the use of significant estimates and assumptions, including but not limited to:

- estimating the timing of and expected costs to complete the in-process projects;
- projecting regulatory approvals;
- estimating future cash flows from product sales resulting from completed products and in-process projects; and
- developing appropriate discount rates and probability rates by project.

We believe the fair values that we assign to the intangible assets acquired are based upon reasonable estimates and assumptions given available facts and circumstances as of the acquisition dates. No assurance can be given, however, that the underlying assumptions used to estimate expected cash flows will transpire as estimated. In addition, we are required to estimate the period of time over which to amortize the intangible assets, which requires significant judgment.

Finite-lived intangible assets consist primarily of purchased developed technology and are amortized on a straight-line basis over their estimated useful lives, which range from two to 18 years. The estimated useful lives associated with intangible assets are consistent with the estimated lives of the products and may be modified when circumstances warrant. Intangible assets with finite lives are reviewed for impairment whenever events or circumstances indicate that the carrying value of an asset may not be recoverable. Events giving rise to impairment are an inherent risk in the pharmaceutical industry and cannot be predicted. Factors that we consider in deciding when to perform an impairment review include significant under-performance of a product in relation to expectations, significant negative industry or economic trends, and significant changes or planned changes in our use of the assets. An impairment loss would be recognized when estimated undiscounted future cash flows expected to result from the use of the asset and its eventual disposition are less than its carrying amount. Estimating future cash flows related to an intangible asset involves estimates and assumptions. If our assumptions are not correct, there could be an impairment loss or, in the case of a change in the estimated useful life of the asset, a change in amortization expense.

IPR&D is not amortized but is tested for impairment annually or when events or circumstances indicate that the fair value may be below the carrying value of the asset. If the carrying value of the assets is not expected to be recovered, the assets are written down to their estimated fair values.

As of December 31, 2020, we had $2.2 billion of finite-lived intangible assets, which included $1.5 billion associated with the Vyxeos intangible asset which we acquired in the Celator Acquisition. As part of our annual impairment assessment, we reviewed the Vyxeos asset

as of December 31, 2020 and determined the carrying value of the asset is recoverable. Cash flow models used in our assessment are based on our commercial experience to date and require the use of significant estimates, which include, but are not limited to, patient-related assumptions, including patient population and segmentation, patient growth and treatment rates, and long-range pricing expectations.

In 2020, we recorded an acquired in-process research and development, or IPR&D, asset impairment charge of $136.1 million following the decision to stop enrollment in our Phase 3 clinical study of defibrotide for the prevention of VOD due to a determination that the study is highly unlikely to reach one of its primary endpoints. We did not recognize an impairment charge related to our intangible assets in 2019. In relation to the sale of our rights to Prialt to TerSera in 2018, we adjusted the carrying value of the assets held for sale to fair value less costs to sell, which resulted in an impairment charge of $42.9 million in our consolidated statements of income in 2018, primarily related to the carrying balances of intangible assets.

Please refer to Note 9, Goodwill and Intangible Assets, of the Notes to Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K for further information about our intangible assets and the remaining useful lives of our finite-lived intangible assets as of December 31, 2020.

Income Taxes

We use the asset and liability method of accounting for income taxes. Under this method, deferred tax assets and liabilities are determined based on differences between the financial statement carrying amount and the tax basis of assets and liabilities and are measured using enacted tax rates and laws that will be in effect when the differences are expected to reverse. We provide a valuation allowance when it is more-likely-than-not that deferred tax assets will not be realized.

Our most significant tax jurisdictions are Ireland and the U.S. Significant estimates are required in determining our provision for income taxes. Some of these estimates are based on management's interpretations of jurisdiction-specific tax laws or regulations and the likelihood of settlement related to tax audit issues. Various internal and external factors may have favorable or unfavorable effects on our future effective income tax rate. These factors include, but are not limited to, changes in tax laws, regulations and/or rates, changing interpretations of existing tax laws or regulations, changes in estimates of prior years' items, the impact of accounting for share-based compensation, changes in our international organization, likelihood of settlement, and changes in overall levels of income before taxes.

Realization of our deferred tax assets is dependent upon the generation of future taxable income, the amount and timing of which are uncertain. In evaluating our ability to recover our deferred tax assets, we consider all available positive and negative evidence, including cumulative income in recent fiscal years, our forecast of future taxable income exclusive of certain reversing temporary differences and significant risks and uncertainties related to our business. In determining future taxable income, we are responsible for assumptions utilized including the amount of state, federal and international pre-tax operating income, the reversal of certain temporary differences and the implementation of feasible and prudent tax planning strategies. These assumptions require significant judgment about the forecasts of future taxable income in applicable tax jurisdictions, which are based on our commercial experience to date and are consistent with the plans and estimates that we are using to manage our underlying business.

We maintain a valuation allowance against certain other deferred tax assets where realizability is not certain. We periodically evaluate the likelihood of the realization of deferred tax assets and reduce the carrying amount of these deferred tax assets by a valuation allowance to the extent we believe a portion will not be realized. This determination depends on a variety of factors, some of which are subjective, including our recent cumulative earnings experience by taxing jurisdiction, expectations of future taxable income, carryforward periods available to us for tax reporting purposes, various income tax strategies and other relevant factors. If we determine that the deferred tax assets are not realizable in a future period, we would record material changes to income tax provision in that period.

We have also provided for unrecognized tax benefits that we believe are not more-likely-than-not to be sustained upon examination by tax authorities. The evaluation of unrecognized tax benefits is based on factors that include, but are not limited to, changes in tax law, the measurement of tax positions taken or expected to be taken in tax returns, the effective settlement of matters subject to audit, new audit activity and changes in facts or circumstances related to a tax position. We evaluate unrecognized tax benefits on a quarterly basis and adjust the level of the liability to reflect any subsequent changes in the relevant facts surrounding the uncertain positions. Our liabilities for unrecognized tax benefits can be relieved only if the contingency becomes legally extinguished through either payment to the taxing authority or the expiration of the statute of limitations, the recognition of the benefits associated with the position meet the more-likely-than-not threshold or the liability becomes effectively settled through the examination process. We consider matters to be effectively settled once the taxing authority has completed all of its required or expected examination procedures, including all appeals and administrative reviews. We also accrue for potential interest and penalties related to unrecognized tax benefits in income tax provision (benefit).

Recent Accounting Pronouncements

For a discussion of recent accounting pronouncements, please see Note 2, Summary of Significant Accounting Policies, of the Notes to Consolidated Financial Statements included in Part IV of this Annual Report on Form 10-K.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Interest Rate Risk. The primary objectives of our investment policy, in order of priority, are as follows: safety and preservation of principal and diversification of risk; liquidity of investments sufficient to meet cash flow requirements; and competitive yield. Although our investments are subject to market risk, our investment policy specifies credit quality standards for our investments and limits the amount of credit exposure from any single issue, issuer or certain types of investment. Our investment policy allows us to maintain a portfolio of cash equivalents and short-term investments in a variety of securities, including U.S. federal government and federal agency securities, corporate bonds or commercial paper issued by U.S. corporations, money market instruments, certain qualifying money market mutual funds, certain repurchase agreements, and tax-exempt obligations of states, agencies and municipalities in the U.S. Our cash equivalents and investments as of December 31, 2020 consisted of time deposits and money market funds which are not subject to significant interest rate risk.

We are exposed to risks associated with changes in interest rates in connection with our term loan borrowings. On June 7, 2018, we entered into the amended credit agreement to provide for a revolving credit facility of $1.6 billion, which replaced the existing revolving credit facility of $1.25 billion, and a new $667.7 million term loan facility, which replaced the $750.0 million term loan facility, of which $584.3 million principal amount was outstanding as of December 31, 2020. There were no borrowings outstanding under the revolving credit facility as of December 31, 2020. To achieve a desired mix of floating and fixed interest rates on our term loan, we entered into interest rate swap agreements in March 2017 that are designated as cash flow hedges. These derivative instruments are utilized for risk management purposes, and we do not use these derivatives for speculative trading purposes. The interest rate swap agreements have a notional amount of $300.0 million and are effective from March 3, 2017 through July 12, 2021 and convert the floating rate on a portion of our term loan to a fixed rate of 1.895%, plus the borrowing spread. The impact of a hypothetical increase or decrease in interest rates on the fair value of our interest rate swap contracts would be offset by a change in the value of the underlying liability. If interest rates were to increase or decrease by 100 basis points, interest expense for 2021 would increase or decrease by approximately $4.2 million, based on the unhedged portion of our outstanding variable rate borrowings.

In 2014, we completed a private placement of $575.0 million aggregate principal amount of the 2021 Notes, of which we have repurchased $356.2 million of the aggregate principal amount. In 2017, we completed a private placement of $575.0 million aggregate principal amount of the 2024 Notes. In June 2020, we completed a private offering of an aggregate $1.0 billion principal amount of the 2026 Notes. The 2021 Notes, 2024 Notes and 2026 Notes have fixed annual interest rates of 1.875%, 1.50% and 2.00%, respectively, and we, therefore, do not have economic interest rate exposure on the Exchangeable Senior Notes. However, the fair values of the Exchangeable Senior Notes are exposed to interest rate risk. Generally, the fair values of the Exchangeable Senior Notes will increase as interest rates fall and decrease as interest rates rise. The fair values of the Exchangeable Senior Notes are also affected by volatility in our ordinary share price. As of December 31, 2020, the fair values of the 2021 Notes, the 2024 Notes and the 2026 Notes were estimated to be approximately $224 million, $615 million and $1.3 billion, respectively.

In July 2017, the Financial Conduct Authority, the authority that regulates LIBOR, announced it intended to stop compelling banks to submit rates for the calculation of LIBOR after 2021. The Alternative Reference Rates Committee, or ARRC, in the U.S. has proposed that the Secured Overnight Financing Rate, or SOFR, is the rate that represents best practice as the alternative to the U.S. dollar, or USD, LIBOR for use in derivatives and other financial contracts that are currently indexed to USD LIBOR. ARRC has proposed a paced market transition plan to SOFR from USD LIBOR and organizations are currently working on industry wide and company specific transition plans as it relates to derivatives and cash markets exposed to USD LIBOR. We have certain financial contracts, including the amended credit agreement and our interest rate swaps, that are indexed to USD LIBOR and are monitoring this activity and evaluating the related risks.

Foreign Exchange Risk. We have significant operations in Europe as well as in the U.S. The functional currency of each foreign subsidiary is generally the local currency. We are exposed to foreign currency exchange risk as the functional currency financial statements of foreign subsidiaries are translated to U.S. dollars. The assets and liabilities of our foreign subsidiaries having a functional currency other than the U.S. dollar are translated into U.S. dollars at the exchange rate prevailing at the balance sheet date, and at the average exchange rate for the reporting period for revenue and expense accounts. The cumulative foreign currency translation adjustment

is recorded as a component of accumulated other comprehensive loss in shareholders' equity. The reported results of our foreign subsidiaries will be influenced by their translation into U.S. dollars by currency movements against the U.S. dollar. Our primary currency translation exposure is related to our subsidiaries that have functional currencies denominated in the euro. A hypothetical 10% strengthening or weakening in the rates used to translate the results of our foreign subsidiaries that have functional currencies denominated in euro would have increased or decreased net income for the year ended December 31, 2020 by approximately $21 million.

Transactional exposure arises where transactions occur in currencies other than the functional currency. Transactions in foreign currencies are recorded at the exchange rate prevailing at the date of the transaction. The resulting monetary assets and liabilities are translated into the appropriate functional currency at exchange rates prevailing at the balance sheet date and the resulting gains and losses are reported in foreign exchange gain (loss) in the consolidated statements of income. As of December 31, 2020, our primary exposure to transaction risk related to euro net monetary liabilities, including intercompany loans, held by subsidiaries with a U.S. dollar functional currency. We have entered into foreign exchange forward contracts to manage this currency risk. These foreign exchange forward contracts are not designated as hedges; gains and losses on these derivative instruments are designed to offset gains and losses on the underlying balance sheet exposures. As of December 31, 2020, we held foreign exchange forward contracts with notional amounts totaling $357.4 million. The net asset fair value of outstanding foreign exchange forward contracts was $11.1 million as of December 31, 2020. Based on our foreign currency exchange rate exposures as of December 31, 2020, a hypothetical 10% adverse fluctuation in exchange rates would decrease the fair value of our foreign exchange forward contracts by approximately $31 million as of December 31, 2020. The resulting loss on these forward contracts would be offset by a positive impact on the underlying monetary assets and liabilities.

Item 8. Financial Statements and Supplementary Data

Our consolidated financial statements as listed below are included in this Annual Report on Form 10-K as pages F-1 through F-44.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

Not applicable.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures. We have carried out an evaluation under the supervision and with the participation of management, including our principal executive officer and principal financial officer, of our disclosure controls and procedures (as defined in Rule 13a-15(e) of the Exchange Act) as of the end of the period covered by this Annual Report on Form 10-K. Based on their evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were effective as of December 31, 2020.

Limitations on the Effectiveness of Controls. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Because of inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues, if any, within an organization have been detected. Accordingly, our disclosure controls and procedures are designed to provide reasonable, not absolute, assurance that the objectives of our disclosure control system are met and, as set forth above, our principal executive officer and principal financial officer have concluded, based on their evaluation as of the end of the period covered by this report, that our disclosure controls and procedures were effective to provide reasonable assurance that the objectives of our disclosure control system were met.

Changes in Internal Control over Financial Reporting. During the quarter ended December 31, 2020, there were no changes to our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting. The following report is provided by management in respect of our internal control over financial reporting (as defined in Rule 13a-15(f) of the Exchange Act):

1. Our management is responsible for establishing and maintaining adequate internal control over financial reporting.
2. Our management used the Committee of Sponsoring Organizations of the Treadway Commission Internal Control—Integrated Framework (2013), or the COSO framework, to evaluate the effectiveness of internal control over financial reporting. Management believes that the COSO framework is a suitable framework for its evaluation of financial reporting because it is free from bias, permits reasonably consistent qualitative and quantitative measurements of our internal control over financial reporting, is sufficiently complete so that those relevant factors that would alter a conclusion about the effectiveness of our internal control over financial reporting are not omitted and is relevant to an evaluation of internal control over financial reporting.
3. Management has assessed the effectiveness of our internal control over financial reporting as of December 31, 2020 and has concluded that such internal control over financial reporting was effective. There were no material weaknesses in internal control over financial reporting identified by management.
4. KPMG, our independent registered public accounting firm, has audited the consolidated financial statements of Jazz Pharmaceuticals plc as of and for the year ended December 31, 2020, included herein, and has issued an audit report on our internal control over financial reporting, which is included below.

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
Jazz Pharmaceuticals plc:

Opinion on Internal Control Over Financial Reporting

We have audited Jazz Pharmaceuticals plc's and subsidiaries' (the 'Company') internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2020 and 2019, and the related consolidated statements of income, comprehensive income, shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2020, and the related notes and financial statement schedule at Item 15(a)2 (collectively, the consolidated financial statements), and our report dated February 23, 2021 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ KPMG

Dublin, Ireland
February 23, 2021

Item 9B. Other Information

Not applicable.

PART III

Certain information required by Part III is omitted from this Annual Report on Form 10-K and incorporated by reference to our definitive proxy statement for our 2021 annual general meeting of shareholders, or our 2021 Proxy Statement, to be filed pursuant to Regulation 14A of the Securities Exchange Act of 1934, as amended, or Exchange Act. If our 2021 Proxy Statement is not filed within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K, the omitted information will be included in an amendment to this Annual Report on Form 10-K filed not later than the end of such 120-day period.

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this item is to be included in our 2021 Proxy Statement as follows:

- The information relating to our directors and nominees for director is to be included in the section entitled "Proposal 1—Election of Directors;"
- The information relating to our executive officers is to be included in the section entitled "Executive Officers;"
- The information relating to our audit committee, audit committee financial expert and procedures by which shareholders may recommend nominees to our board of directors is to be included in the section entitled "Corporate Governance and Board Matters;" and
- If required, the information regarding compliance with Section 16(a) of the Exchange Act is to be included in the section entitled "Delinquent Section 16(a) Reports."

Such information is incorporated herein by reference to our 2021 Proxy Statement, provided that if the 2021 Proxy Statement is not filed within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K, the omitted information will be included in an amendment to this Annual Report on Form 10-K filed not later than the end of such 120-day period.

Our Code of Conduct applies to all of our employees, directors and officers, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, and those of our subsidiaries. The Code of Conduct is available on our website at *www.jazzpharmaceuticals.com* under the section entitled "About" under "Corporate Ethics." We intend to satisfy the disclosure requirements under Item 5.05 of the SEC Form 8-K regarding an amendment to, or waiver from, a provision of our Code of Conduct by posting such information on our website at the website address and location specified above.

Item 11. Executive Compensation

The information required by this item is to be included in our 2021 Proxy Statement under the sections entitled "Executive Compensation," "Director Compensation," "Corporate Governance and Board Matters—Compensation Committee Interlocks and Insider Participation" and "Corporate Governance and Board Matters—Compensation Committee Report" and is incorporated herein by reference, provided that if the 2021 Proxy Statement is not filed within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K, the omitted information will be included in an amendment to this Annual Report on Form 10-K filed not later than the end of such 120-day period.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by this item with respect to equity compensation plans is to be included in our 2021 Proxy Statement under the section entitled "Equity Compensation Plan Information" and the information required by this item with respect to security ownership of certain beneficial owners and management is to be included in our 2021 Proxy Statement under the section entitled "Security Ownership of Certain Beneficial Owners and Management" and in each case is incorporated herein by reference, provided that if the 2021 Proxy Statement is not filed within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K, the omitted information will be included in an amendment to this Annual Report on Form 10-K filed not later than the end of such 120-day period.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this item is to be included in our 2021 Proxy Statement under the sections entitled "Certain Relationships and Related Party Transactions" and "Corporate Governance and Board Matters—Independence of the Board of Directors" and is incorporated herein by reference, provided that if the 2021 Proxy Statement is not filed within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K, the omitted information will be included in an amendment to this Annual Report on Form 10-K filed not later than the end of such 120-day period.

Item 14. Principal Accountant Fees and Services

The information required by this item is to be included in our 2021 Proxy Statement under the section entitled "Proposal 2—On a Non-Binding Advisory Basis, Ratify Appointment of Independent Registered Accounting Firm and, On a Binding Basis, Authorize the Board of Directors, Acting Through the Audit Committee, to Determine the Independent Auditors' Remuneration" and is incorporated herein by reference, provided that if the 2021 Proxy Statement is not filed within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K, the omitted information will be included in an amendment to this Annual Report on Form 10-K filed not later than the end of such 120-day period.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) The following documents are filed as part of this Annual Report on Form 10-K:

1. *Index to Financial Statements:*

See Index to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K.

2. *Financial Statement Schedules:*

The following financial statement schedule of Jazz Pharmaceuticals plc is filed as part of this Annual Report on Form 10-K on page F-44 and should be read in conjunction with the consolidated financial statements of Jazz Pharmaceuticals plc.

Schedule II: Valuation and Qualifying Accounts

All other schedules are omitted because they are not applicable, not required under the instructions, or the requested information is shown in the consolidated financial statements or related notes thereto.

(b) Exhibits—The following exhibits are included herein or incorporated herein by reference:

Exhibit Number	Description of Document
2.1	Agreement and Plan of Merger and Reorganization, dated as of September 19, 2011, by and among Azur Pharma Limited (now Jazz Pharmaceuticals plc), Jaguar Merger Sub Inc., Jazz Pharmaceuticals, Inc. and Seamus Mulligan, solely in his capacity as the Indemnitors' Representative (incorporated herein by reference to Exhibit 2.1 in Jazz Pharmaceuticals, Inc.'s Current Report on Form 8-K (File No. 001-33500) filed with the SEC on September 19, 2011).
2.2	Letter Agreement, dated as of January 17, 2012, by and among Jazz Pharmaceuticals plc, Jaguar Merger Sub Inc., Jazz Pharmaceuticals, Inc. and Seamus Mulligan, solely in his capacity as the Indemnitors' Representative (incorporated herein by reference to Exhibit 2.2 in Jazz Pharmaceuticals plc's Current Report on Form 8-K (File No. 001-33500), as filed with the SEC on January 18, 2012).
2.3	Agreement and Plan of Merger, dated as of April 26, 2012, by and among Jazz Pharmaceuticals plc, Jewel Merger Sub Inc., EUSA Pharma Inc., and Essex Woodlands Health Ventures, Inc., Mayflower L.P., and Bryan Morton, in their capacity as the representatives of the equity holders of EUSA Pharma Inc. (incorporated herein by reference to Exhibit 2.1 in Jazz Pharmaceuticals plc's Current Report on Form 8-K (File No. 001-33500), as filed with the SEC on April 27, 2012).
2.4	Assignment, dated as of June 11, 2012, by and among Jazz Pharmaceuticals plc and Jazz Pharmaceuticals, Inc. (incorporated herein by reference to Exhibit 2.1B in Jazz Pharmaceuticals plc's Current Report on Form 8-K (File No. 001-33500), as filed with the SEC on June 12, 2012).
2.5	Tender Offer Agreement, dated December 19, 2013, by and among Jazz Pharmaceuticals Public Limited Company, Jazz Pharmaceuticals Italy S.r.l. and Gentium S.p.A. (incorporated herein by reference to Exhibit 2.1 in Jazz Pharmaceuticals plc's Current Report on Form 8-K/A (File No. 001-33500), as filed with the SEC on December 20, 2013).
2.6†	Asset Purchase Agreement, dated January 13, 2014, by and among Jazz Pharmaceuticals International III Limited, Aerial BioPharma, LLC and Jazz Pharmaceuticals plc (incorporated herein by reference to Exhibit 2.1 in Jazz Pharmaceuticals plc's Current Report on Form 8-K (File No. 001-33500), as filed with the SEC on January 13, 2014).

Exhibit Number	Description of Document
2.7†	Assignment Agreement, dated July 1, 2014, by and among Jazz Pharmaceuticals International II Limited, Sigma-Tau Pharmaceuticals, Inc., Jazz Pharmaceuticals plc and Gentium S.p.A. (incorporated herein by reference to Exhibit 2.1 in Jazz Pharmaceuticals plc's Current Report on Form 8-K (File No. 001-33500), as filed with the SEC on August 5, 2014).
2.8	Amended and Restated Agreement for the Acquisition of the Topaz Portfolio Business of Jazz Pharmaceuticals plc, dated March 20, 2015, between Jazz Pharmaceuticals plc and Essex Bidco Limited (incorporated herein by reference to Exhibit 2.1 in Jazz Pharmaceuticals plc's Current Report on Form 8-K (File No. 001-33500), as filed with the SEC on March 23, 2015).
2.9	Agreement and Plan of Merger, dated as of May 27, 2016, by and among Jazz Pharmaceuticals plc, Plex Merger Sub, Inc., and Celator Pharmaceuticals, Inc. (incorporated herein by reference to Exhibit 2.1 in Jazz Pharmaceuticals plc's Current Report on Form 8-K (File No. 001-33500), as filed with the SEC on May 31, 2016).
2.10‡	Transaction Agreement, dated as of February 3, 2021, by and among Jazz Pharmaceuticals UK Holdings Limited, Jazz Pharmaceuticals Public Limited Company and GW Pharmaceuticals PLC (incorporated herein by reference to Exhibit 2.1 in Jazz Pharmaceuticals plc's Current Report on Form 8-K (File No. 001-33500), as filed with the SEC on February 4, 2021).
3.1	Amended and Restated Memorandum and Articles of Association of Jazz Pharmaceuticals plc, as amended on August 4, 2016 (incorporated herein by reference to Exhibit 3.1 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended June 30, 2016, as filed with the SEC on August 9, 2016).
4.1	Reference is made to Exhibit 3.1.
4.3A	Investor Rights Agreement, dated July 7, 2009 by and between Jazz Pharmaceuticals, Inc. and the other parties named therein (incorporated herein by reference to Exhibit 10.88 in Jazz Pharmaceuticals, Inc.'s Current Report on Form 8-K (File No. 001-33500), as filed with the SEC on July 7, 2009).
4.3B	Assignment, Assumption and Amendment Agreement, dated as of January 18, 2012, by and among Jazz Pharmaceuticals, Inc., Jazz Pharmaceuticals plc and the other parties named therein (incorporated herein by reference to Exhibit 4.7B in the Annual Report on Form 10-K (File No. 001-33500) for the period ended December 31, 2011, as filed by Jazz Pharmaceuticals plc on behalf of and as successor to Jazz Pharmaceuticals, Inc. with the SEC on February 28, 2012).
4.4A	Indenture, dated as of August 13, 2014, by and among Jazz Pharmaceuticals plc, Jazz Investments I Limited and U.S. Bank National Association (incorporated herein by reference to Exhibit 4.1 in Jazz Pharmaceuticals plc's Current Report on Form 8-K (File No. 001-33500), as filed with the SEC on August 13, 2014).
4.4B	Form of 1.875% Exchangeable Senior Note due 2021 (incorporated herein by reference to Exhibit 4.2 in Jazz Pharmaceuticals plc's Current Report on Form 8-K (File No. 001-33500), as filed with the SEC on August 13, 2014).
4.5A	Indenture, dated as of August 23, 2017, among Jazz Pharmaceuticals Public Limited Company, Jazz Investments I Limited and U.S. Bank National Association (incorporated herein by reference to Exhibit 4.1 in Jazz Pharmaceuticals plc's Current Report on Form 8-K (File No. 001-33500), as filed with the SEC on August 23, 2017).
4.5B	Form of 1.50% Exchangeable Senior Note due 2024 (incorporated herein by reference to Exhibit 4.1 in Jazz Pharmaceuticals plc's Current Report on Form 8-K (File No. 001-33500), as filed with the SEC on August 23, 2017).
4.6A	Indenture, dated as of June 11, 2020 among Jazz Pharmaceuticals Public Limited Company, Jazz Investments I Limited and U.S. Bank National Association (incorporated herein by reference to Exhibit 4.1 in Jazz Pharmaceuticals plc's Current Report on Form 8-K (File No. 001-033500), as filed with the SEC on June 11, 2020).
4.6B	Form of 2.000% Exchangeable Senior Note due 2026 (incorporated herein by reference to Exhibit 4.2 in Jazz Pharmaceuticals plc's Current Report on Form 8-K (File No. 001-033500), as filed with the SEC on June 11, 2020).
4.7	Description of Share Capital.
10.1	Settlement Agreement, dated as of April 5, 2017, by and between Jazz Pharmaceuticals, Inc. and Jazz Pharmaceuticals Ireland Limited, and Roxane Laboratories, Inc., West-Ward Pharmaceuticals Corp., Eurohealth (USA), Inc., and Hikma Pharmaceuticals PLC (incorporated herein by reference to Exhibit 10.1 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended June 30, 2017, as filed with the SEC on August 8, 2017).
10.2	Settlement Agreement, dated as of April 4, 2019, by and among United States of America, acting through the United States Department of Justice and on behalf of the Office of Inspector General of the Department of Health and Human Services, Jazz Pharmaceuticals plc, Jazz Pharmaceuticals, Inc., and Jazz Pharmaceuticals Ireland Ltd. (incorporated herein by reference to Exhibit 10.7 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended March 31, 2019, as filed with the SEC on May 7, 2019).

Exhibit Number	Description of Document
10.3	Corporate Integrity Agreement, dated as of April 3, 2019, by and between Jazz Pharmaceuticals plc and the Office of Inspector General of the United States Department of Health and Human Services (incorporated herein by reference to Exhibit 10.6 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended March 31, 2019, as filed with the SEC on May 7, 2019).
10.4†	Supply Agreement, dated as of April 1, 2010, by and between Jazz Pharmaceuticals, Inc. and Siegfried (USA) Inc. (incorporated herein by reference to Exhibit 10.54 in Jazz Pharmaceuticals, Inc.'s Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended March 31, 2010, as filed with the SEC on May 6, 2010).
10.5†	Royalty Bearing Licence Agreement and Supply Agreement Re Erwinia-Derived Asparaginase, dated July 22, 2005, between Public Health England (formerly Health Protection Agency) and EUSA Pharma SAS (formerly OPi, S.A.), as amended on each of December 22, 2009, March 23, 2012 and August 8, 2012 (incorporated herein by reference to Exhibit 10.11 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q/A (File No. 001-33500) for the period ended June 30, 2012, as filed with the SEC on August 9, 2012).
10.6	Novation Agreement relating to Royalty Bearing Licence Agreement and Supply Agreement re Erwinia-Derived Asparaginase, dated as of May 13, 2015, by and among EUSA Pharma SAS, the Secretary of State for Health acting through Public Health England and Porton Biopharma Limited (incorporated herein by reference to Exhibit 10.3 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended June 30, 2015, as filed with the SEC on August 5, 2015).
10.7	Contract Variation Agreement by and between Porton Biopharma Limited and Jazz Pharmaceuticals France SAS, dated as of December 20, 2018 (incorporated herein by reference to Exhibit 10.5 in Jazz Pharmaceuticals plc's Annual Report on Form 10-K (File No. 001-33500) for the period ended December 31, 2018, as filed with the SEC on February 26, 2019).
10.8‡	Master Manufacturing Services Agreement, dated as of October 1, 2015, by and between Jazz Pharmaceuticals Ireland Limited and Patheon Pharmaceuticals Inc.
10.9A†	Clinical and Commercial Manufacturing and Supply Agreement, dated as of December 22, 2010, between Celator Pharmaceuticals, Inc. and Baxter Oncology GmbH (incorporated herein by reference to Exhibit 10.8 in Jazz Pharmaceuticals plc's Annual Report on Form 10-K (File No. 001-33500) for the year ended December 31, 2017, as filed with the SEC on February 27, 2018).
10.9B†	Amendment No. 1 Clinical and Commercial Manufacturing and Supply Agreement, dated as of January 18, 2018, by and between Jazz Pharmaceuticals Ireland Limited and Baxter Oncology GmbH (incorporated herein by reference to Exhibit 10.3 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended March 31, 2018, as filed with the SEC on May 8, 2018).
10.10‡	Contract Manufacturing Agreement, dated as of January 20, 2020, by and between Jazz Pharmaceuticals Ireland Limited and Siegfried AG (incorporated herein by reference to Exhibit 10.10 in Jazz Pharmaceuticals plc's Annual Report on Form 10-K (File No. 001-33500) for the period ended December 31, 2019, as filed with the SEC on February 25, 2020).
10.11‡	Pharmacy Master Services Agreement, dated as of July 1, 2020, by and between Jazz Pharmaceuticals, Inc. and Express Scripts Specialty Distribution Services, Inc. (incorporated herein by reference to Exhibit 10.2 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended June 30, 2020, as filed with the SEC on August 4, 2020).
10.12‡	Amended and Restated License Agreement, dated as of October 14, 2020, between Pharma Mar, S.A. and Jazz Pharmaceuticals Ireland Limited.
10.13A	Credit Agreement, dated as of June 18, 2015, among Jazz Pharmaceuticals plc, Jazz Securities Limited, Jazz Pharmaceuticals, Inc., Jazz Financing I Limited, Jazz Pharmaceuticals Ireland Limited, the lenders party thereto and Bank of America, N.A., as Collateral Agent, Administrative Agent, Swing Line Lender and L/C Issuer (incorporated herein by reference to Exhibit 10.1 in Jazz Pharmaceuticals plc's Current Report on Form 8-K (File No. 001-33500), as filed with the SEC on June 18, 2015).
10.13B	Amendment No. 1, dated as of July 12, 2016, to Credit Agreement, dated as of June 18, 2015, among Jazz Pharmaceuticals plc, Jazz Securities Limited, Jazz Pharmaceuticals, Inc., Jazz Financing I Limited, Jazz Pharmaceuticals Ireland Limited, the lenders party thereto and Bank of America, N.A., as Collateral Agent, Administrative Agent, Swing Line Lender and L/C Issuer (incorporated herein by reference to Exhibit 10.1 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended June 30, 2016, as filed with the SEC on August 9, 2016).

Exhibit Number	Description of Document
10.13C	Amendment No. 2, dated as of June 7, 2018, to Credit Agreement, dated as of June 18, 2015 (as previously amended by Amendment No. 1, dated as of July 12, 2016), among Jazz Pharmaceuticals plc, Jazz Securities Designated Activity Company, Jazz Pharmaceuticals, Inc., Jazz Financing I Designated Activity Company, Jazz Pharmaceuticals Ireland Limited, the lenders party thereto and Bank of America, N.A., as Collateral Agent, Administrative Agent, Swing Line Lender and L/C Issuer (incorporated herein by reference to Exhibit 10.4 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended June 30, 2018, as filed with the SEC on August 7, 2018).
10.14A	Commercial Lease, dated as of June 2, 2004, by and between Jazz Pharmaceuticals, Inc. and The Board of Trustees of the Leland Stanford Junior University (incorporated herein by reference to Exhibit 10.52 in Jazz Pharmaceuticals, Inc.'s registration statement on Form S-1, as amended (File No. 333-141164), as filed with the SEC on March 27, 2007).
10.14B	First Amendment of Lease, dated June 1, 2009, by and between Jazz Pharmaceuticals, Inc. and Wheatley-Fields, LLC, successor in interest to The Board of Trustees of the Leland Stanford Junior University (incorporated herein by reference to Exhibit 10.86 in Jazz Pharmaceuticals, Inc.'s Current Report on Form 8-K (File No. 001-33500), as filed with the SEC on June 4, 2009).
10.14C	Second Amendment of Lease, dated February 28, 2012, by and between Jazz Pharmaceuticals, Inc. and Wheatley-Fields, LLC, successor in interest to The Board of Trustees of the Leland Stanford Junior University (incorporated herein by reference to Exhibit 10.31 in the Annual Report on Form 10-K (File No. 001-33500) for the period ended December 31, 2011, as filed by Jazz Pharmaceuticals plc on behalf of and as successor to Jazz Pharmaceuticals, Inc. with the SEC on February 28, 2012).
10.15	Lease, dated May 8, 2012, by and between John Ronan and Castle Cove Property Developments Limited and Jazz Pharmaceuticals plc (incorporated herein by reference to Exhibit 10.2 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended June 30, 2012, as filed with the SEC on August 7, 2012).
10.16A	Commercial Lease, dated as of January 7, 2015, by and between The Board of Trustees of the Leland Stanford Junior University and Jazz Pharmaceuticals, Inc. (incorporated herein by reference to Exhibit 10.10 in Jazz Pharmaceuticals plc's Annual Report on Form 10-K (File No. 001-33500) for the period ended December 31, 2014, as filed with the SEC on February 24, 2015).
10.16B	First Amendment, dated as of January 29, 2018, to Commercial Lease, dated as of January 7, 2015, by and between The Board of Trustees of the Leland Stanford Junior University and Jazz Pharmaceuticals, Inc. (incorporated herein by reference to Exhibit 10.5 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended June 30, 2018, as filed with the SEC on August 7, 2018).
10.16C	Second Amendment, dated as of July 26, 2018, to Commercial Lease, dated as of January 7, 2015, by and between The Board of Trustees of the Leland Stanford Junior University and Jazz Pharmaceuticals, Inc., as previously amended by the First Amendment to Lease, dated as of January 29, 2018 (incorporated herein by reference to Exhibit 10.1 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2018, as filed with the SEC on November 6, 2018).
10.17A	Commercial Lease, dated as of September 22, 2017, by and between Jazz Pharmaceuticals, Inc. and The Board of Trustees of the Leland Stanford Junior University (incorporated herein by reference to Exhibit 10.2 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2017, as filed with the SEC on November 7, 2017).
10.17B	First Amendment, dated as of January 29, 2018, to Commercial Lease, dated as of September 22, 2017, by and between The Board of Trustees of the Leland Stanford Junior University and Jazz Pharmaceuticals, Inc. (incorporated herein by reference to Exhibit 10.6 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended June 30, 2018, as filed with the SEC on August 7, 2018).
10.18+	Form of Indemnification Agreement between Jazz Pharmaceuticals plc and its officers and directors (incorporated herein by reference to Exhibit 10.1 in Jazz Pharmaceuticals plc's Current Report on Form 8-K (File No. 001-33500), as filed with the SEC on January 18, 2012).
10.19A+	Offer Letter from Jazz Pharmaceuticals, Inc. to Michael Miller (incorporated herein by reference to Exhibit 10.2 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2014, as filed with the SEC on November 4, 2014).

Exhibit Number	Description of Document
10.19B+	Transition and Termination Agreement, dated as of November 2, 2019, by and between Jazz Pharmaceuticals, Inc. and Mike Miller (incorporated herein by reference to Exhibit 10.6 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2019, as filed with the SEC on November 5, 2019).
10.19C+	Amendment to Transition and Termination Agreement, dated as of March 31, 2020, by and between Jazz Pharmaceuticals, Inc. and Michael Miller (incorporated herein by reference to Exhibit 10.3 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended March 31, 2020, as filed with the SEC on May 5, 2020).
10.20+	Offer Letter from Jazz Pharmaceuticals, Inc. to Daniel N. Swisher, Jr. (incorporated herein by reference to Exhibit 10.21 in Jazz Pharmaceuticals plc's Annual Report on Form 10-K (File No. 001-33500) for the year ended December 31, 2017, as filed with the SEC on February 27, 2018).
10.21+	Offer Letter from Jazz Pharmaceuticals, Inc. to Robert Iannone dated as of April 11, 2019 (incorporated herein by reference to Exhibit 10.4 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended June 30, 2019, as filed with the SEC on August 6, 2019).
10.22A+	Employment Agreement, dated as of May 16, 2012 by and between Patricia Carr and Jazz Pharmaceuticals plc (incorporated herein by reference to Exhibit 10.1 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2019, as filed with the SEC on November 5, 2019).
10.22B+	Change in Control Severance Terms, dated as of May 15, 2016, by and between Jazz Pharmaceuticals Ireland Ltd. and Patricia Carr (incorporated herein by reference to Exhibit 10.2 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2019, as filed with the SEC on November 5, 2019).
10.22C+	Change in Control Stock Award Acceleration Agreement, dated as of May 15, 2016 by and between Jazz Pharmaceuticals plc and Patricia Carr (incorporated herein by reference to Exhibit 10.3 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2019, as filed with the SEC on November 5, 2019).
10.23+	Offer Letter, dated as of July 5, 2019 by and between Jazz Pharmaceuticals, Inc. and Neena M. Patil (incorporated herein by reference to Exhibit 10.4 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2019, as filed with the SEC on November 5, 2019).
10.24A+	Employment Contract, dated as of February 22, 2013, by and between Jazz Pharmaceuticals Ireland Limited and Finbar Larkin (incorporated herein by reference to Exhibit 10.27 in Jazz Pharmaceuticals plc's Annual Report on Form 10-K (File No. 001-33500) for the period ended December 31, 2019, as filed with the SEC on February 25, 2020).
10.24B+	Amendment to Employment Contract, dated as of February 26, 2020, by and between Jazz Pharmaceuticals Ireland Limited and Finbar Larkin ((incorporated herein by reference to Exhibit 10.2 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended March 31, 2020, as filed with the SEC on May 5, 2020).
10.25A+	Employment Contract, dated as of December 14, 2019, by and between Jazz Pharmaceuticals UK Limited and Samantha Pearce (incorporated herein by reference to Exhibit 10.28A in Jazz Pharmaceuticals plc's Annual Report on Form 10-K (File No. 001-33500) for the period ended December 31, 2019, as filed with the SEC on February 25, 2020).
10.25B+	Amendment to Employment Contract, dated as of April 21, 2020, by and between Jazz Pharmaceuticals UK Limited and Samantha Pearce (incorporated herein by reference to Exhibit 10.4 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended March 31, 2020, as filed with the SEC on May 5, 2020).
10.25C+	Equity Award Letter, dated as of December 9, 2019, by and between Jazz Pharmaceuticals UK Limited and Samantha Pearce (incorporated herein by reference to Exhibit 10.28B in Jazz Pharmaceuticals plc's Annual Report on Form 10-K (File No. 001-33500) for the period ended December 31, 2019, as filed with the SEC on February 25, 2020).
10.26+	Offer Letter, dated as of February 23, 2020, by and between Jazz Pharmaceuticals, Inc. and Renée Galá (incorporated herein by reference to Exhibit 10.1 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended March 31, 2020, as filed with the SEC on May 5, 2020).
10.27+	Offer Letter, dated as of May 2, 2020, by and between Jazz Pharmaceuticals, Inc. and Kim Sablich (incorporated herein by reference to Exhibit 10.1 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended June 30, 2020, as filed with the SEC on August 4, 2020).
10.28A+	Jazz Pharmaceuticals plc 2007 Equity Incentive Plan (incorporated herein by reference to Exhibit 99.3 in Jazz Pharmaceuticals plc's registration statement on Form S-8 (File No. 333-179075), as filed with the SEC on January 18, 2012).

Exhibit Number	Description of Document
10.28B+	Jazz Pharmaceuticals plc 2007 Equity Incentive Plan Sub-Plan Governing Awards to Participants in the Republic of Ireland (incorporated herein by reference to Exhibit 10.3B in the Annual Report on Form 10-K (File No. 001-33500) for the period ended December 31, 2011, as filed by Jazz Pharmaceuticals plc on behalf of and as successor to Jazz Pharmaceuticals Inc. with the SEC on February 28, 2012).
10.28C+	Form of Notice of Grant of Stock Options and Form of Option Agreement (U.S.) under the Jazz Pharmaceuticals plc 2007 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.27C in Jazz Pharmaceuticals plc's Annual Report on Form 10-K (File No. 001-33500) for the period ended December 31, 2012, as filed with the SEC on February 26, 2013).
10.28D+	Form of Notice of Grant of Stock Options and Form of Option Agreement (Irish) under Jazz Pharmaceuticals plc 2007 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.27D in Jazz Pharmaceuticals plc's Annual Report on Form 10-K (File No. 001-33500) for the period ended December 31, 2012, as filed with the SEC on February 26, 2013).
10.28E+	Form of Restricted Stock Unit Grant Notice and Form of Restricted Stock Unit Award Agreement (U.S.) under the Jazz Pharmaceuticals plc 2007 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.27E in Jazz Pharmaceuticals plc's Annual Report on Form 10-K (File No. 001-33500) for the period ended December 31, 2012, as filed with the SEC on February 26, 2013).
10.28F+	Form of Restricted Stock Unit Grant Notice and Form of Restricted Stock Unit Award Agreement (Irish) under the Jazz Pharmaceuticals plc 2007 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.27F in Jazz Pharmaceuticals plc's Annual Report on Form 10-K (File No. 001-33500) for the period ended December 31, 2012, as filed with the SEC on February 26, 2013).
10.28G+	Jazz Pharmaceuticals plc 2007 Equity Incentive Plan—Form of Non-U.S. Option Grant Notice and Form of Non-U.S. Option Agreement (approved July 31, 2013) (incorporated herein by reference to Exhibit 10.1 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2013, as filed with the SEC on November 5, 2013).
10.28H+	Jazz Pharmaceuticals plc 2007 Equity Incentive Plan—Form of Non-U.S. Restricted Stock Unit Award Grant Notice and Form of Non-U.S. Restricted Stock Unit Award Agreement (approved July 31, 2013) (incorporated herein by reference to Exhibit 10.2 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2013, as filed with the SEC on November 5, 2013).
10.29A+	Jazz Pharmaceuticals plc 2011 Equity Incentive Plan (incorporated herein by reference to Exhibit 99.1 in Jazz Pharmaceuticals plc's registration statement on Form S-8 (File No. 333-179075), as filed with the SEC on January 18, 2012).
10.29B+	Jazz Pharmaceuticals plc 2011 Equity Incentive Plan Sub-Plan Governing Awards to Participants in the Republic of Ireland (incorporated herein by reference to Exhibit 10.39B in the Annual Report on Form 10-K (File No. 001-33500) for the period ended December 31, 2011, as filed by Jazz Pharmaceuticals plc on behalf of and as successor to Jazz Pharmaceuticals Inc. with the SEC on February 28, 2012).
10.29C+	Form of Stock Option Grant Notice and Form of Option Agreement (U.S.) under the Jazz Pharmaceuticals plc 2011 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.7 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended June 30, 2012, as filed with the SEC on August 7, 2012).
10.29D+	Form of Stock Option Grant Notice and Form of Option Agreement (Irish) under the Jazz Pharmaceuticals plc 2011 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.8 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended June 30, 2012, as filed with the SEC on August 7, 2012).
10.29E+	Form of Non-U.S. Option Grant Notice and Form of Non-U.S. Option Agreement under the Jazz Pharmaceuticals plc 2011 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.28E in Jazz Pharmaceuticals plc's Annual Report on Form 10-K (File No. 001-33500) for the period ended December 31, 2012, as filed with the SEC on February 26, 2013).
10.29F+	Form of Restricted Stock Unit Grant Notice and Form of Restricted Stock Unit Award Agreement (U.S.) under the Jazz Pharmaceuticals plc 2011 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.9 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended June 30, 2012, as filed with the SEC on August 7, 2012).
10.29G+	Form of Restricted Stock Unit Grant Notice and Form of Restricted Stock Unit Award Agreement (Irish) under the Jazz Pharmaceuticals plc 2011 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.10 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended June 30, 2012, as filed with the SEC on August 7, 2012).

Exhibit Number	Description of Document
10.29H+	Form of Non-U.S. Restricted Stock Unit Grant Notice and Form of Non-U.S. Restricted Stock Unit Agreement under the Jazz Pharmaceuticals plc 2011 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.28H in Jazz Pharmaceuticals plc's Annual Report on Form 10-K (File No. 001-33500) for the period ended December 31, 2012, as filed with the SEC on February 26, 2013).
10.29I+	Jazz Pharmaceuticals plc 2011 Equity Incentive Plan—Form of U.S. Option Grant Notice and Form of U.S. Option Agreement (approved July 31, 2013) (incorporated herein by reference to Exhibit 10.3 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2013, as filed with the SEC on November 5, 2013).
10.29J+	Jazz Pharmaceuticals plc 2011 Equity Incentive Plan—Form of U.S. Restricted Stock Unit Award Grant Notice and Form of U.S. Restricted Stock Unit Award Agreement (approved July 31, 2013) (incorporated herein by reference to Exhibit 10.4 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2013, as filed with the SEC on November 5, 2013).
10.29K+	Jazz Pharmaceuticals plc 2011 Equity Incentive Plan—Form of Non-U.S. Option Grant Notice and Form of Non-U.S. Option Agreement (approved July 31, 2013) (incorporated herein by reference to Exhibit 10.5 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2013, as filed with the SEC on November 5, 2013).
10.29L+	Jazz Pharmaceuticals plc 2011 Equity Incentive Plan—Form of Non-U.S. Restricted Stock Unit Award Grant Notice and Form of Non-U.S. Restricted Stock Unit Award Agreement (approved July 31, 2013) (incorporated herein by reference to Exhibit 10.6 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2013, as filed with the SEC on November 5, 2013).
10.29M+	Jazz Pharmaceuticals plc 2011 Equity Incentive Plan—Form of Non-U.S. Option Grant Notice and Form of Non-U.S. Option Agreement (incorporated herein by reference to Exhibit 10.1 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended March 31, 2016, as filed with the SEC on May 10, 2016).
10.29N+	Jazz Pharmaceuticals plc 2011 Equity Incentive Plan—Form of Non-U.S. Restricted Stock Unit Grant Notice and Form of Non-U.S. Restricted Stock Unit Award Agreement (incorporated herein by reference to Exhibit 10.2 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended March 31, 2016, as filed with the SEC on May 10, 2016).
10.29O+	Amended and Restated 2011 Equity Incentive Plan (approved August 4, 2016) (incorporated herein by reference to Exhibit 10.8 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended June 30, 2016, as filed with the SEC on August 9, 2016).
10.29P+	Amended and Restated 2011 Equity Incentive Plan (approved November 3, 2016) (incorporated herein by reference to Exhibit 10.2 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2016, as filed with the SEC on November 8, 2016).
10.29Q+	Form of U.S. Restricted Stock Unit Award Grant Notice and Form of U.S. Restricted Stock Unit Award Agreement under the Jazz Pharmaceuticals plc Amended and Restated 2011 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.6 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2016, as filed with the SEC on November 8, 2016).
10.29R+	Form of U.S. Option Grant Notice and Form of U.S. Option Agreement under the Jazz Pharmaceuticals plc Amended and Restated 2011 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.7 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2016, as filed with the SEC on November 8, 2016).
10.29S+	Form of Non-U.S. Restricted Stock Unit Award Grant Notice and Form of Non-U.S. Restricted Stock Unit Award Agreement under the Jazz Pharmaceuticals plc Amended and Restated 2011 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.8 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2016, as filed with the SEC on November 8, 2016).
10.29T+	Form of Non-U.S. Option Grant Notice and Non-U.S. Option Agreement under the Jazz Pharmaceuticals plc Amended and Restated 2011 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.2 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended June 30, 2018, as filed with the SEC on August 7, 2018).

Exhibit Number	Description of Document
10.29U+	Form of Non-U.S. Restricted Stock Unit Award Grant Notice and Non-U.S. Restricted Stock Unit Award Agreement under the Jazz Pharmaceuticals plc Amended and Restated 2011 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.3 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended June 30, 2018, as filed with the SEC on August 7, 2018).
10.29V+	Form of Non-U.S. Option Grant Notice and Non-U.S. Option Agreement under the Jazz Pharmaceuticals plc 2011 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.4 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended March 31, 2019, as filed with the SEC on May 7, 2019).
10.29W+	Form of Non-U.S. Restricted Stock Unit Award Grant Notice and Non-U.S. Restricted Stock Unit Award Agreement under the Jazz Pharmaceuticals plc 2011 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.5 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended March 31, 2019, as filed with the SEC on May 7, 2019).
10.30+	Jazz Pharmaceuticals plc Amended and Restated Directors Deferred Compensation Plan (incorporated herein by reference to Exhibit 99.6 in Jazz Pharmaceuticals plc's registration statement on Form S-8 (File No. 333-179075), as filed with the SEC on January 18, 2012).
10.31A+	Jazz Pharmaceuticals plc Amended and Restated 2007 Non-Employee Directors Stock Option Plan (incorporated herein by reference to Exhibit 99.4 in Jazz Pharmaceuticals plc's registration statement on Form S-8 (File No. 333-179075), as filed with the SEC on January 18, 2012).
10.31B+	Form of Non-U.S. Option Grant Notice and Form of Non-U.S. Option Agreement under the Jazz Pharmaceuticals plc Amended and Restated 2007 Non-Employee Directors Stock Option Plan (incorporated herein by reference to Exhibit 10.30B in Jazz Pharmaceuticals plc's Annual Report on Form 10-K (File No. 001-33500) for the period ended December 31, 2012, as filed with the SEC on February 26, 2013).
10.31C+	Jazz Pharmaceuticals plc Amended and Restated 2007 Non-Employee Directors Stock Option Plan—Form of Non-U.S. Option Grant Notice and Form of Non-U.S. Option Agreement (approved August 1, 2013) (incorporated herein by reference to Exhibit 10.7 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2013, as filed with the SEC on November 5, 2013).
10.31D+	Amended and Restated 2007 Non-Employee Directors Stock Award Plan (approved August 4, 2016) (incorporated herein by reference to Exhibit 10.9 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended June 30, 2016, as filed with the SEC on August 9, 2016).
10.31E+	Amended and Restated 2007 Non-Employee Directors Stock Award Plan (approved November 3, 2016) (incorporated herein by reference to Exhibit 10.3 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2016, as filed with the SEC on November 8, 2016).
10.31F+	Amended and Restated 2007 Non-Employee Directors Stock Award Plan (approved July 30, 2020) (incorporated herein by reference to Exhibit 10.3 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended June 30, 2020, as filed with the SEC on August 4, 2020).
10.31G+	Form of Non-U.S. Restricted Stock Unit Award Grant Notice and Form of Non-U.S. Restricted Stock Unit Award Agreement under the Jazz Pharmaceuticals plc Amended and Restated 2007 Non-Employee Directors Stock Award Plan (incorporated herein by reference to Exhibit 10.4 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2016, as filed with the SEC on November 8, 2016).
10.31H+	Form of Non-U.S. Option Grant Notice and Form of Non-U.S. Option Agreement under the Jazz Pharmaceuticals plc Amended and Restated Non-Employee Directors 2007 Stock Award Plan (incorporated herein by reference to Exhibit 10.5 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2016, as filed with the SEC on November 8, 2016).
10.31I+	Form of Non-U.S. Option Grant Notice and Non-U.S. Option Agreement under the Jazz Pharmaceuticals plc Amended and Restated 2007 Non-Employee Directors Stock Award Plan (incorporated herein by reference to Exhibit 10.2 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2018, as filed with the SEC on November 6, 2018).

Exhibit Number	Description of Document
10.31J+	Form of Non-U.S. Restricted Stock Unit Award Grant Notice and Non-U.S. Restricted Stock Unit Award Agreement under the Jazz Pharmaceuticals plc Amended and Restated 2007 Non-Employee Directors Stock Award Plan (incorporated herein by reference to Exhibit 10.3 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2018, as filed with the SEC on November 6, 2018).
10.31K+	Form of Non-U.S. Option Grant Notice and Non-U.S. Option Agreement under the Jazz Pharmaceuticals plc Amended and Restated 2007 Non-Employee Directors Stock Award Plan (incorporated herein by reference to Exhibit 10.2 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended March 31, 2019, as filed with the SEC on May 7, 2019).
10.31L+	Form of Non-U.S. Restricted Stock Unit Award Grant Notice and Non-U.S. Restricted Stock Unit Award Agreement under the Jazz Pharmaceuticals plc Amended and Restated 2007 Non-Employee Directors Stock Award Plan (incorporated herein by reference to Exhibit 10.3 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended March 31, 2019, as filed with the SEC on May 7, 2019).
10.31M+	Form of Non-U.S. Option Grant Notice and Non-U.S. Option Agreement under the Jazz Pharmaceuticals plc Amended and Restated 2007 Non-Employee Directors Stock Award Plan (incorporated herein by reference to Exhibit 10.2 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2020, as filed with the SEC on November 2, 2020).
10.31N+	Form of Non-U.S. Restricted Stock Unit Award Grant Notice and Non-U.S. Restricted Stock Unit Award Agreement under the Jazz Pharmaceuticals plc Amended and Restated 2007 Non-Employee Directors Stock Award Plan (incorporated herein by reference to Exhibit 10.3 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2020, as filed with the SEC on November 2, 2020).
10.32A+	Jazz Pharmaceuticals plc 2007 Employee Stock Purchase Plan, as amended and restated (incorporated herein by reference to Exhibit 10.31A in Jazz Pharmaceuticals plc's Annual Report on Form 10-K (File No. 001-33500) for the period ended December 31, 2012, as filed with the SEC on February 26, 2013).
10.32B+	Jazz Pharmaceuticals plc 2007 Employee Stock Purchase Plan Sub-Plan Governing Purchase Rights to Participants in the Republic of Ireland (incorporated herein by reference to Exhibit 10.14C in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended March 31, 2012, as filed with the SEC on May 8, 2012).
10.33A+	Jazz Pharmaceuticals plc Cash Bonus Plan for U.S. Affiliates (approved October 30, 2019) (incorporated herein by reference to Exhibit 10.34C in Jazz Pharmaceuticals plc's Annual Report on Form 10-K (File No. 001-33500) for the period ended December 31, 2019, as filed with the SEC on February 25, 2020).
10.33B+	Jazz Pharmaceuticals Cash Bonus Plan (Ireland and Other Specified Affiliates) (Calendar Year 2020) (incorporated herein by reference to Exhibit 10.34D in Jazz Pharmaceuticals plc's Annual Report on Form 10-K (File No. 001-33500) for the period ended December 31, 2019, as filed with the SEC on February 25, 2020).
10.33C+	Jazz Pharmaceuticals plc Cash Bonus Plan for U.S. Affiliates (approved October 30, 2020).
10.33D+	Jazz Pharmaceuticals Cash Bonus Plan (Ireland and Other Specified Affiliates) (Calendar Year 2021).
10.34+	Amended and Restated Executive Change in Control and Severance Benefit Plan, dated as of July 31, 2019 (incorporated herein by reference to Exhibit 10.6 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2019, as filed with the SEC on November 5, 2019).
10.35A+	Amended and Restated Non-Employee Director Compensation Policy (approved May 3, 2018) (incorporated herein by reference to Exhibit 10.1 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended June 30, 2018, as filed with the SEC on August 7, 2018).
10.35B+	Amended and Restated Non-Employee Director Compensation Policy (approved July 21, 2020) (incorporated herein by reference to Exhibit 10.1 in Jazz Pharmaceuticals plc's Quarterly Report on Form 10-Q (File No. 001-33500) for the period ended September 30, 2020, as filed with the SEC on November 2, 2020).
21.1	Subsidiaries of Jazz Pharmaceuticals plc.
23.1	Consent of KPMG, Independent Registered Public Accounting Firm.
24.1	Power of Attorney (included on the signature page hereto).

Exhibit Number	Description of Document
31.1	Certification of Principal Executive Officer pursuant to Rules 13a-14(a) and 15d-14(a) promulgated under the Securities Exchange Act of 1934, as amended.
31.2	Certification of Principal Financial Officer pursuant to Rules 13a-14(a) and 15d-14(a) promulgated under the Securities Exchange Act of 1934, as amended.
32.1*	Certification of Principal Executive Officer and Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document—The instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Labels Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

+ Indicates management contract or compensatory plan.

† Confidential treatment has been granted for portions of this exhibit. Omitted portions have been filed separately with the Securities and Exchange Commission.

‡ Certain portions of this exhibit have been omitted pursuant to Item 601(b)(2) of Regulation S-K.

* The certifications attached as Exhibit 32.1 accompany this Annual Report on Form 10-K pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, and shall not be deemed "filed" by the Registrant for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: February 23, 2021

Jazz Pharmaceuticals public limited company
(Registrant)

/s/ Bruce C. Cozadd

Bruce C. Cozadd
Chairman and Chief Executive Officer and Director
(Principal Executive Officer)

/s/ Renée Galá

Renée Galá
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

/s/ Patricia Carr

Patricia Carr
Vice President, Finance
(Principal Accounting Officer)

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Bruce C. Cozadd, Renée Galá, Neena M. Patil and Patricia Carr, and each of them, as his or her true and lawful attorneys-in-fact and agents, with full power of substitution for him or her, and in his or her name in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, and any of them, his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, the following persons on behalf of the registrant and in the capacities and on the dates indicated have signed this report below:

Signature	Title	Date
/s/ Bruce C. Cozadd **Bruce C. Cozadd**	Chairman, Chief Executive Officer and Director *(Principal Executive Officer)*	February 23, 2021
/s/ Renée Galá **Renée Galá**	Executive Vice President and Chief Financial Officer *(Principal Financial Officer)*	February 23, 2021
/s/ Patricia Carr **Patricia Carr**	Vice President, Finance *(Principal Accounting Officer)*	February 23, 2021
/s/ Paul L. Berns **Paul L. Berns**	Director	February 23, 2021
/s/ Jennifer E. Cook **Jennifer E. Cook**	Director	February 23, 2021
/s/ Patrick G. Enright **Patrick G. Enright**	Director	February 23, 2021
/s/ Peter Gray **Peter Gray**	Director	February 23, 2021
/s/ Heather Ann Mcsharry **Heather Ann McSharry**	Director	February 23, 2021
/s/ Seamus C. Mulligan **Seamus C. Mulligan**	Director	February 23, 2021
/s/ Kenneth W. O'keefe **Kenneth W. O'Keefe**	Director	February 23, 2021
/s/ Anne O'riordan **Anne O'Riordan**	Director	February 23, 2021
/s/ Norbert G. Riedel, Ph.D. **Norbert G. Riedel, Ph.D.**	Director	February 23, 2021
/s/ Elmar Schnee **Elmar Schnee**	Director	February 23, 2021
/s/ Mark D. Smith, M.D. **Mark D. Smith, M.D.**	Director	February 23, 2021
/s/ Catherine A. Sohn, Pharm.D. **Catherine A. Sohn, Pharm.D.**	Director	February 23, 2021
/s/ Rick E Winningham **Rick E Winningham**	Director	February 23, 2021

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Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
Jazz Pharmaceuticals plc:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Jazz Pharmaceuticals plc and subsidiaries (the 'Company') as of December 31, 2020 and 2019, the related consolidated statements of income, comprehensive income, shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2020, and the related notes and financial statement schedules at Item 15(a)2 (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2020, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 23, 2021 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Assessment of the carrying value for the Vyxeos intangible asset

As discussed in Note 9 to the consolidated financial statements, the finite-lived intangible assets balance as of December 31, 2020 was $2.2 billion, a substantial portion of which relates to the finite-lived intangible asset in respect of Vyxeos. As discussed in Note 2, the Company reviews finite-lived intangible assets for impairment when events or circumstances indicate that the carrying value of such assets may not be recoverable.

We identified the assessment of the carrying value of the Vyxeos intangible asset as a critical audit matter. There was a high degree of subjectivity in assessing the carrying value of Vyxeos, specifically revenue forecasts for Vyxeos, which are a key input to the determination of estimated undiscounted future cash flows.

The following are the primary procedures we performed to address this critical audit matter:

– We evaluated the design and tested the operating effectiveness of certain internal controls over the Vyxeos intangible asset impairment review process, including the Company's control related to the development of the revenue forecasts for Vyxeos;

– We evaluated the reasonableness of management's revenue forecasts for Vyxeos by comparing certain underlying assumptions to (1) company-specific operational information and management's communications to the Board of Directors and (2) available industry or other third-party reports on expected market opportunities;

– We assessed the Company's ability to accurately forecast revenues by comparing historical forecasted revenues for Vyxeos to actual results; and

– We performed a sensitivity analysis over Vyxeos estimated undiscounted future cash flows to assess the impact of changes to those forecasts on the Company's determination of the carrying value of Vyxeos.

Recoverability of U.S. deferred tax assets

As discussed in Note 21 to the consolidated financial statements, the Company had $752.7 million of deferred tax assets as of December 31, 2020, a substantial portion of which relates to U.S. net operating losses (NOLs) and tax credits carried forward. As discussed in Note 2, realization of the deferred tax assets is dependent on the generation of future taxable income, the amount and timing of which are uncertain.

We identified the recoverability of U.S. deferred tax assets as a critical audit matter due to the extent of specialized skills and knowledge needed and the subjectivity involved in assessing the Company's forecast of sufficient future taxable income. In particular, evaluating the Company's U.S. revenue forecasts involved a high degree of auditor judgment.

The following are the primary procedures we performed to address this critical audit matter:

– We evaluated the design and tested the operating effectiveness of certain internal controls over the Company's deferred tax asset valuation allowance process including controls related to the development of U.S. revenue forecasts;

– We evaluated the reasonableness of management's revenue forecasts for products sold in the U.S. by comparing certain underlying assumptions to (1) company-specific operational information and management's communication to the Board of Directors and (2) available industry or other third-party reports on expected market opportunities;

– We involved income tax professionals with specialized skills and knowledge, who assisted in performing a technical assessment of the Company's tax positions, application of relevant tax regulations and utilization of NOLs and tax credits; and

– To assess the Company's ability to forecast, for products sold in the U.S., we compared the Company's historical forecasted revenues to actual historic outcomes.

/s/ KPMG

We have served as the Company's auditor since 2012.

Dublin, Ireland
February 23, 2021

JAZZ PHARMACEUTICALS PLC

CONSOLIDATED BALANCE SHEETS
(In thousands, except per share amounts)

	December 31, 2020	December 31, 2019
ASSETS		
Current assets:		
Cash and cash equivalents	$1,057,769	$ 637,344
Investments	1,075,000	440,000
Accounts receivable, net of allowances of $5,487 and $1,296 at December 31, 2020 and 2019, respectively	396,490	355,987
Inventories	95,396	78,608
Prepaid expenses	62,422	39,434
Other current assets	152,491	78,895
Total current assets	2,839,568	1,630,268
Property, plant and equipment, net	127,935	131,506
Operating lease assets	129,169	139,385
Intangible assets, net	2,195,051	2,440,977
Goodwill	958,303	920,018
Deferred tax assets, net	254,916	221,403
Deferred financing costs	5,238	7,426
Other non-current assets	25,721	47,914
Total assets	$6,535,901	$5,538,897
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 26,945	$ 45,732
Accrued liabilities	352,732	269,686
Current portion of long-term debt	246,322	33,387
Income taxes payable	25,200	10,965
Deferred revenue	2,546	4,720
Total current liabilities	653,745	364,490
Deferred revenue, non-current	2,315	4,861
Long-term debt, less current portion	1,848,516	1,573,870
Operating lease liabilities, less current portion	140,035	151,226
Deferred tax liabilities, net	130,397	224,095
Other non-current liabilities	101,148	109,374
Commitments and contingencies (Note 13)		
Shareholders' equity:		
Ordinary shares, nominal value $0.0001 per share; 300,000 shares authorized; 56,171 and 56,140 shares issued and outstanding at December 31, 2020 and 2019, respectively	6	6
Non-voting euro deferred shares, €0.01 par value per share; 4,000 shares authorized, issued and outstanding at both December 31, 2020 and 2019	55	55
Capital redemption reserve	472	472
Additional paid-in capital	2,633,670	2,266,026
Accumulated other comprehensive loss	(134,352)	(223,393)
Retained earnings	1,159,894	1,067,815
Total shareholders' equity	3,659,745	3,110,981
Total liabilities and shareholders' equity	$6,535,901	$5,538,897

The accompanying notes are an integral part of these consolidated financial statements.

JAZZ PHARMACEUTICALS PLC

CONSOLIDATED STATEMENTS OF INCOME
(In thousands, except per share amounts)

	Year Ended December 31,		
	2020	2019	2018
Revenues:			
Product sales, net	$2,346,660	$2,135,601	$1,869,473
Royalties and contract revenues	16,907	26,160	21,449
Total revenues	2,363,567	2,161,761	1,890,922
Operating expenses:			
Cost of product sales (excluding amortization of acquired developed technologies)	148,917	127,930	121,544
Selling, general and administrative	854,233	736,942	683,530
Research and development	335,375	299,726	226,616
Intangible asset amortization	259,580	354,814	201,498
Impairment charges	136,139	—	42,896
Acquired in-process research and development	251,250	109,975	—
Total operating expenses	1,985,494	1,629,387	1,276,084
Income from operations	378,073	532,374	614,838
Interest expense, net	(99,707)	(72,261)	(78,500)
Foreign exchange loss	(3,271)	(5,811)	(6,875)
Income before income tax provision (benefit) and equity in loss of investees	275,095	454,302	529,463
Income tax provision (benefit)	33,517	(73,154)	80,162
Equity in loss of investees	2,962	4,089	2,203
Net income	$ 238,616	$ 523,367	$ 447,098
Net income per ordinary share:			
Basic	$ 4.28	$ 9.22	$ 7.45
Diluted	$ 4.22	$ 9.09	$ 7.30
Weighted-average ordinary shares used in per share calculations—basic	55,712	56,749	59,976
Weighted-average ordinary shares used in per share calculations—diluted	56,517	57,550	61,221

The accompanying notes are an integral part of these consolidated financial statements.

JAZZ PHARMACEUTICALS PLC

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In thousands)

	Year Ended December 31,		
	2020	2019	2018
Net income	$238,616	$523,367	$447,098
Other comprehensive income (loss):			
Foreign currency translation adjustments	90,183	(20,720)	(58,988)
Unrealized gain (loss) on hedging activities, net of income tax provision (benefit) of ($163), ($697) and $289, respectively	(1,142)	(4,882)	2,022
Other comprehensive income (loss)	89,041	(25,602)	(56,966)
Total comprehensive income	$327,657	$497,765	$390,132

The accompanying notes are an integral part of these consolidated financial statements.

JAZZ PHARMACEUTICALS PLC

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY
(In thousands)

	Ordinary Shares		Non-voting Euro Deferred		Capital Redemption Reserve	Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Total Equity
	Shares	Amount	Shares	Amount					
Balance at December 31, 2017	59,898	$ 6	4,000	$55	$472	$1,935,486	$(140,878)	$ 917,956	$2,713,097
Cumulative effect adjustment from adoption of new accounting standards	—	—	—	—	—	—	53	(332)	(279)
Issuance of ordinary shares in conjunction with exercise of share options	772	—	—	—	—	82,918	—	—	82,918
Issuance of ordinary shares under employee stock purchase plan	111	—	—	—	—	10,419	—	—	10,419
Issuance of ordinary shares in conjunction with vesting of restricted stock units	253	—	—	—	—	—	—	—	—
Shares withheld for payment of employee's withholding tax liability	—	—	—	—	—	(17,925)	—	—	(17,925)
Share-based compensation	—	—	—	—	—	102,732	—	—	102,732
Shares repurchased	(3,530)	—	—	—	—	—	—	(523,672)	(523,672)
Other comprehensive loss	—	—	—	—	—	—	(56,966)	—	(56,966)
Net income	—	—	—	—	—	—	—	447,098	447,098
Balance at December 31, 2018	57,504	6	4,000	55	472	2,113,630	(197,791)	841,050	2,757,422
Cumulative effect adjustment from adoption of new accounting standards	—	—	—	—	—	—	—	4,848	4,848
Issuance of ordinary shares in conjunction with exercise of share options	515	—	—	—	—	46,477	—	—	46,477
Issuance of ordinary shares under employee stock purchase plan	106	—	—	—	—	11,354	—	—	11,354
Issuance of ordinary shares in conjunction with vesting of restricted stock units	265	—	—	—	—	—	—	—	—
Shares withheld for payment of employee's withholding tax liability	—	—	—	—	—	(16,739)	—	—	(16,739)
Share-based compensation	—	—	—	—	—	111,304	—	—	111,304
Shares repurchased	(2,250)	—	—	—	—	—	—	(301,450)	(301,450)
Other comprehensive loss	—	—	—	—	—	—	(25,602)	—	(25,602)
Net income	—	—	—	—	—	—	—	523,367	523,367
Balance at December 31, 2019	56,140	$ 6	4,000	$55	$472	$2,266,026	$(223,393)	$1,067,815	$3,110,981

JAZZ PHARMACEUTICALS PLC

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY—(Continued)
(In thousands)

	Ordinary Shares		Non-voting Euro Deferred		Capital Redemption Reserve	Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Total Equity
	Shares	Amount	Shares	Amount					
Balance at December 31, 2019	56,140	$ 6	4,000	$55	$472	$2,266,026	$(223,393)	$1,067,815	$3,110,981
Stock issued under directors deferred compensation plan	37	—	—	—	—	—	—	—	—
Issuance of Exchangeable Senior Notes, due 2026	—	—	—	—	—	176,260	—	—	176,260
Partial repurchase of Exchangeable Senior Notes, due 2021	—	—	—	—	—	(12,513)	—	—	(12,513)
Issuance of ordinary shares in conjunction with exercise of share options	780	—	—	—	—	86,984	—	—	86,984
Issuance of ordinary shares under employee stock purchase plan	125	—	—	—	—	12,697	—	—	12,697
Issuance of ordinary shares in conjunction with vesting of restricted stock units	290	—	—	—	—	—	—	—	—
Shares withheld for payment of employee's withholding tax liability	—	—	—	—	—	(16,877)	—	—	(16,877)
Share-based compensation	—	—	—	—	—	121,093	—	—	121,093
Shares repurchased	(1,201)	—	—	—	—	—	—	(146,537)	(146,537)
Other comprehensive income	—	—	—	—	—	—	89,041	—	89,041
Net income	—	—	—	—	—	—	—	238,616	238,616
Balance at December 31, 2020	56,171	$ 6	4,000	$55	$472	$2,633,670	$(134,352)	$1,159,894	$3,659,745

The accompanying notes are an integral part of these consolidated financial statements.

JAZZ PHARMACEUTICALS PLC

CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Year Ended December 31,		
	2020	2019	2018
Operating activities			
Net income	$ 238,616	$ 523,367	$ 447,098
Adjustments to reconcile net income to net cash provided by operating activities:			
Intangible asset amortization	259,580	354,814	201,498
Share-based compensation	120,998	110,563	102,441
Impairment charges	136,139	—	42,896
Depreciation	18,673	15,342	15,233
Acquired in-process research and development	251,250	109,975	—
Distributions from equity method investees	5,438	—	—
Deferred tax benefit	(136,937)	(236,610)	(88,815)
Provision for losses on accounts receivable and inventory	15,000	6,668	4,728
Loss on extinguishment and modification of debt	5,089	—	1,425
Amortization of debt discount and deferred financing costs	56,659	46,396	43,960
Other non-cash transactions	14,580	59	7,357
Changes in assets and liabilities:			
Accounts receivable	(38,647)	(92,326)	(40,132)
Inventories	(30,537)	(32,790)	(18,512)
Prepaid expenses and other current assets	(98,042)	(25,650)	6,697
Other non-current assets	21,913	(18,919)	(2,523)
Operating lease assets	12,366	14,148	—
Accounts payable	(18,935)	4,770	17,040
Accrued liabilities	79,477	(5,565)	71,208
Income taxes payable	13,038	10,056	(19,735)
Deferred revenue	(4,720)	(5,414)	(7,497)
Other non-current liabilities	(8,967)	3,561	14,537
Operating lease liabilities, less current portion	(12,383)	(6,044)	—
Net cash provided by operating activities	899,648	776,401	798,904
Investing activities			
Acquisition of investments	(2,397,675)	(917,100)	(1,165,915)
Proceeds from maturity of investments	1,755,000	985,000	855,000
Acquired in-process research and development	(251,250)	(61,700)	—
Purchases of property, plant and equipment	(15,004)	(40,135)	(20,370)
Asset acquisition, net of cash acquired	—	(55,074)	—
Acquisition of intangible assets	(113,000)	(80,500)	(111,100)
Net proceeds from sale of assets	14,259	14,209	47,898
Net cash used in investing activities	(1,007,670)	(155,300)	(394,487)
Financing activities			
Net proceeds from issuance of Exchangeable Senior Notes, due 2026	981,381	—	—
Proceeds from revolving credit facility	500,000	—	—
Proceeds from employee equity incentive and purchase plans	99,681	57,831	93,337
Share repurchases	(146,537)	(301,450)	(523,672)
Payment of employee withholding taxes related to share-based awards	(16,877)	(16,739)	(17,925)
Repayments of long-term debt	(33,387)	(33,387)	(25,717)
Payment of debt modification costs	—	—	(6,406)
Payments for partial repurchase of Exchangeable Senior Notes, due 2021	(356,188)	—	—
Repayments under revolving credit facility	(500,000)	—	—
Proceeds from tenant improvement allowance on build-to-suit lease	—	—	1,253
Net cash provided by (used in) financing activities	528,073	(293,745)	(479,130)
Effect of exchange rates on cash and cash equivalents	374	366	(1,700)
Net increase (decrease) in cash and cash equivalents	420,425	327,722	(76,413)
Cash and cash equivalents, at beginning of period	637,344	309,622	386,035
Cash and cash equivalents, at end of period	$ 1,057,769	$ 637,344	$ 309,622

JAZZ PHARMACEUTICALS PLC

CONSOLIDATED STATEMENTS OF CASH FLOWS—(Continued)
(In thousands)

	Year Ended December 31,		
	2020	2019	2018
Supplemental disclosure of cash flow information:			
Cash paid for interest	$ 42,470	$ 43,002	$ 42,706
Cash paid for income taxes	226,823	183,610	164,217
Non-cash investing activities:			
Amounts capitalized in connection with facility lease obligations	—	—	27,747

The accompanying notes are an integral part of these consolidated financial statements.

1. Organization and Description of Business

Jazz Pharmaceuticals plc is an innovative global biopharmaceutical company dedicated to developing and commercializing life-changing medicines that transform the lives of patients with serious diseases – often with limited or no options. We have a diverse portfolio of marketed medicines and novel product candidates, in early- to late-stage development, across key therapeutic areas. Our focus is in neuroscience, including sleep and movement disorders, and in oncology, including hematologic malignancies and solid tumors. We actively explore new options for patients including novel compounds, small molecule advancements, biologics and innovative delivery technologies.

Our lead marketed products are:

- **Xyrem® (sodium oxybate) oral solution**, a product approved by the U.S. Food and Drug Administration, or FDA, and marketed in the U.S. for the treatment of both cataplexy and excessive daytime sleepiness, or EDS, in narcolepsy patients seven years of age and older;
- **Xywav™ (calcium, magnesium, potassium, and sodium oxybates) oral solution**, a product that contains 92% less sodium than Xyrem, approved by FDA and launched in the U.S. in November 2020 for the treatment of cataplexy or EDS in narcolepsy patients seven years of age and older;
- **Sunosi® (solriamfetol)**, a product approved by FDA and the European Commission, and marketed in the U.S. and in Europe to improve wakefulness in adult patients with EDS associated with narcolepsy or obstructive sleep apnea;
- **Defitelio® (defibrotide sodium)**, a product approved in the U.S. for the treatment of adult and pediatric patients with hepatic veno-occlusive disease, or VOD, also known as sinusoidal obstruction syndrome, with renal or pulmonary dysfunction following hematopoietic stem cell transplantation, or HSCT, and in Europe (where it is marketed as Defitelio® (defibrotide)) for the treatment of severe VOD in adults and children undergoing HSCT therapy;
- **Erwinaze® (asparaginase *Erwinia chrysanthemi*)**, a product approved in the U.S. and in certain markets in Europe (where it is marketed as Erwinase®) for patients with acute lymphoblastic leukemia who have developed hypersensitivity to *E. coli*-derived asparaginase;
- **Vyxeos® (daunorubicin and cytarabine) liposome for injection**, a product approved in the U.S. and in Europe (where it is marketed as Vyxeos® liposomal 44 mg/100 mg powder for concentrate for solution for infusion) for the treatment of adults with newly-diagnosed therapy-related acute myeloid leukemia or acute myeloid leukemia with myelodysplasia-related changes; and
- **Zepzelca™ (lurbinectedin)**, a product approved by FDA and launched in July 2020 in the U.S. for the treatment of adult patients with metastatic small cell lung cancer, or SCLC, with disease progression on or after platinum-based chemotherapy.

Throughout this report, unless otherwise indicated or the context otherwise requires, all references to "Jazz Pharmaceuticals," "Jazz," "the registrant," "we," "us," and "our" refer to Jazz Pharmaceuticals plc and its consolidated subsidiaries. Throughout this report, all references to "ordinary shares" refer to Jazz Pharmaceuticals plc's ordinary shares.

2. Summary of Significant Accounting Policies

Basis of Presentation

The consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles, or U.S. GAAP, and include the accounts of Jazz Pharmaceuticals plc and our subsidiaries and intercompany transactions and balances have been eliminated. Our consolidated financial statements include the results of operations of businesses we have acquired from the date of each acquisition for the applicable reporting periods.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosures in the consolidated financial statements and accompanying notes. Management bases its estimates on historical experience and on assumptions believed to be reasonable under the circumstances. Actual results could differ materially from those estimates.

Adoption of New Accounting Standards

In August 2018, the Financial Accounting Standards Board, or FASB, issued ASU No. 2018-15, "Intangibles-Goodwill and Other-Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract" which aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. We adopted this standard on January 1, 2020 and adoption did not have a material impact on our consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-04, "Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment" which simplifies the accounting for goodwill impairment by eliminating Step 2 of the goodwill impairment test. Goodwill impairment will now be the amount by which the reporting unit's carrying value exceeds its fair value, limited to the carrying value of the goodwill. We adopted this standard on January 1, 2020 and adoption did not have a material impact on our consolidated financial statements.

In June 2016, the FASB issued ASU No. 2016-13, "Financial Instruments-Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments" which requires that credit losses on financial assets measured at amortized cost be determined using an expected loss model, instead of the incurred loss model, and requires that credit losses related to available-for-sale debt securities be recorded through an allowance for credit losses and limited to the amount by which carrying value exceeds fair value. We adopted this standard on January 1, 2020 and adoption did not have a material impact on our consolidated financial statements.

In March 2020, the FASB issued ASU No. 2020-04, "Reference Rate Reform (ASC 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting" which contains optional expedients and exceptions for applying GAAP to contracts, hedging relationships and other transactions affected by reference rate reform. ASC 848 allows for different elections to be made at different points in time, and the timing of those elections will be documented as applicable. For the avoidance of doubt, we intend to reassess the elections of optional expedients and exceptions included within ASC 848 related to our hedging activities and will document the election of these items on a quarterly basis. ASC 848 is effective for us as of January 1, 2020 and will no longer be available to apply after December 31, 2022. In June 2020, we elected the expedient in ASC 848-50-25-2, which allows us to assume that our hedged interest payments will probably occur regardless of any expected modification in their terms related to reference rate reform. Adoption is not expected to have a material impact on our consolidated financial statements.

Significant Risks and Uncertainties

With the global impact of the COVID-19 pandemic, we have developed a comprehensive response strategy including establishing cross-functional response teams and implementing business continuity plans to manage the impact of the COVID-19 pandemic on our employees, patients and our business. Since the second quarter of 2020, we have been experiencing financial and other impacts of the pandemic, and given the global economic slowdown, the overall disruption of global healthcare systems and the other risks and uncertainties associated with the pandemic, we expect that our business, financial condition, results of operations and growth prospects will continue to be adversely affected in future quarters. With respect to our commercialization activities, the evolving effects of the COVID-19 pandemic continue to have a negative impact on demand, new patient starts and treatments for our products, primarily due to the inherent limitations of telemedicine and a reprioritization of healthcare resources toward COVID-19. The extent of the impact on our ability to generate sales of and revenues from our approved products, execute on new product launches, our clinical development and regulatory efforts, our corporate development objectives and the value of and market for our ordinary shares, will depend on future developments that are highly uncertain and cannot be predicted with confidence at this time, such as the ultimate duration and severity of the pandemic, governmental "stay-at-home" orders and travel restrictions, quarantines, social distancing and business closure requirements in the U.S., Ireland and other countries, and the effectiveness of actions taken globally to contain and treat the disease.

Our financial results are significantly influenced by sales of Xyrem. Our future plans assume that our newly launched oxybate product Xywav, with 92% lower sodium compared to Xyrem, depending on the dose, absence of a sodium warning and dosing titration option, will become the treatment of choice for patients who can benefit from oxybate treatment, current Xyrem patients, and patients who previously were not prescribed Xyrem, including those patients for whom sodium content is a concern. While we expect that our business will continue to be substantially dependent on oxybate product sales from both Xyrem and Xywav, there is no guarantee that we can maintain oxybate sales at or near historical levels, or that oxybate sales will continue to grow. Our ability to maintain or increase oxybate sales is subject to a number of risks and uncertainties including, without limitation, those related to the introduction of authorized generic and generic versions

of sodium oxybate and/or new products for treatment of cataplexy and/or EDS in narcolepsy in the U.S. market, the current and potential impacts of the ongoing COVID-19 pandemic, including the current and expected future negative impact on demand for our products and the uncertainty with respect to our ability to meet commercial demand in the future, increased pricing pressure from, changes in policies by, or restrictions on reimbursement imposed by, third party payors, including our ability to obtain and maintain adequate coverage and reimbursement for Xywav, challenges to our intellectual property around Xyrem and Xywav, and continued acceptance of Xyrem by physicians and patients and acceptance of Xywav by payors, physicians and patients.

In addition to risks related specifically to Xyrem and Xywav, we are subject to other challenges and risks related to successfully commercializing a portfolio of oncology products and other neuroscience products, including Sunosi, Defitelio, Erwinaze, Vyxeos and Zepzelca, and other risks specific to our business and our ability to execute on our strategy, as well as risks and uncertainties common to companies in the pharmaceutical industry with development and commercial operations, including, without limitation, risks and uncertainties associated with: obtaining regulatory approval of our late-stage product candidates; effectively commercializing our recently approved products such as Sunosi, Zepzelca and Xywav; obtaining and maintaining adequate coverage and reimbursement for our products; increasing scrutiny of pharmaceutical product pricing and resulting changes in healthcare laws and policy; market acceptance; delays or problems in the supply of our products, loss of single source suppliers or failure to comply with manufacturing regulations; identifying, acquiring or in-licensing additional products or product candidates; pharmaceutical product development and the inherent uncertainty of clinical success; the challenges of protecting and enhancing our intellectual property rights; complying with applicable regulatory requirements; and possible restrictions on our ability and flexibility to pursue certain future opportunities as a result of our substantial outstanding debt obligations. In addition, to the extent the COVID-19 pandemic continues to adversely affect our business and results of operations, it may also have the effect of heightening many of the other risks and uncertainties discussed above.

Concentrations of Risk

Financial instruments that potentially subject us to concentrations of credit risk consist of cash, cash equivalents, investments and derivative contracts. Our investment policy permits investments in U.S. federal government and federal agency securities, corporate bonds or commercial paper issued by U.S. corporations, money market instruments, certain qualifying money market mutual funds, certain repurchase agreements, and tax-exempt obligations of U.S. states, agencies and municipalities and places restrictions on credit ratings, maturities, and concentration by type and issuer. We are exposed to credit risk in the event of a default by the financial institutions holding our cash, cash equivalents and investments to the extent recorded on the balance sheet.

We manage our foreign currency transaction risk and interest rate risk within specified guidelines through the use of derivatives. All of our derivative instruments are utilized for risk management purposes, and we do not use derivatives for speculative trading purposes. As of December 31, 2020 and 2019, we had foreign exchange forward contracts with notional amounts totaling $357.4 million and $180.9 million, respectively. As of December 31, 2020 and 2019, the outstanding foreign exchange forward contracts had a net asset fair value of $11.1 million and $2.3 million, respectively. As of December 31, 2020 and 2019, we had interest rate swap contracts with notional amounts totaling $300.0 million. These outstanding interest rate swap contracts had a net liability fair value of $2.8 million and $1.5 million as of December 31, 2020 and 2019, respectively. The counterparties to these contracts are large multinational commercial banks, and we believe the risk of nonperformance is not significant.

We are also subject to credit risk from our accounts receivable related to our product sales. We monitor our exposure within accounts receivable and record a reserve against uncollectible accounts receivable as necessary. We extend credit to pharmaceutical wholesale distributors and specialty pharmaceutical distribution companies, primarily in the U.S., and to other international distributors and hospitals. Customer creditworthiness is monitored and collateral is not required. We monitor deteriorating economic conditions in certain European countries which may result in variability of the timing of cash receipts and an increase in the average length of time that it takes to collect accounts receivable outstanding. Historically, we have not experienced significant credit losses on our accounts receivable and as of December 31, 2020, allowances on receivables were not material. As of December 31, 2020, two customers accounted for 80% of gross accounts receivable, Express Scripts Specialty Distribution Services, Inc. and its affiliates, or ESSDS, which accounted for 68% of gross accounts receivable, and McKesson Corporation and affiliates, or McKesson, which accounted for 12% of gross accounts receivable. As of December 31, 2019, two customers accounted for 89% of gross accounts receivable, ESSDS, which accounted for 77% of gross accounts receivable, and McKesson, which accounted for 12% of gross accounts receivable.

We depend on single source suppliers for most of our products, product candidates and their APIs. With respect to Xyrem, the API is manufactured for us by a single source supplier and the finished product is manufactured both by us in our facility in Athlone, Ireland and by our U.S.-based Xyrem supplier.

Business Acquisitions

Our consolidated financial statements include the results of operations of an acquired business from the date of acquisition. We account for acquired businesses using the acquisition method of accounting. The acquisition method of accounting for acquired businesses requires, among other things, that assets acquired, liabilities assumed and any noncontrolling interests in the acquired business be recognized at their estimated fair values as of the acquisition date, with limited exceptions, and that the fair value of acquired in-process research and development, or IPR&D, be recorded on the balance sheet. Also, transaction costs are expensed as incurred. Any excess of the acquisition consideration over the assigned values of the net assets acquired is recorded as goodwill. Contingent consideration is included within the acquisition cost and is recognized at its fair value on the acquisition date. A liability resulting from contingent consideration is remeasured to fair value at each reporting date until the contingency is resolved and changes in fair value are recognized in earnings.

Cash Equivalents and Investments

We consider all highly liquid investments, readily convertible to cash, that mature within three months or less from date of purchase to be cash equivalents.

Investments consist of time deposits with initial maturities of greater than three months. Collectively, cash equivalents and investments are considered available-for-sale and are recorded at fair value. Unrealized gains and losses, net of tax, are recorded in accumulated other comprehensive loss in shareholders' equity. We use the specific-identification method for calculating realized gains and losses on securities sold. Realized gains and losses and declines in value judged to be other than temporary on investments are included in interest expense, net in the consolidated statements of income.

Derivative Instruments and Hedging Activities

We record the fair value of derivative instruments as either assets or liabilities on the consolidated balance sheets. Changes in the fair value of derivative instruments are recorded each period in current earnings or other comprehensive income (loss), depending on whether a derivative instrument is designated as part of a hedging transaction and, if it is, the type of hedging transaction. For a derivative to qualify as a hedge at inception and throughout the hedged period, we formally document the nature and relationships between the hedging instruments and hedged item. We assess, both at inception and on an on-going basis, whether the derivative instruments that are used in cash flow hedging transactions are highly effective in offsetting the changes in cash flows of hedged items. Gains or losses on cash flow hedges are reclassified from other comprehensive income (loss) to earnings when the hedged transaction occurs. If we determine that a forecasted transaction is no longer probable of occurring, we discontinue hedge accounting and any related unrealized gain or loss on the derivative instrument is recognized in current earnings. Derivatives that are not designated and do not qualify as hedges are adjusted to fair value through current earnings.

Inventories

Inventories are valued at the lower of cost or net realizable value. Cost is determined using the first-in, first-out method for all inventories. Our policy is to write down inventory that has become obsolete, inventory that has a cost basis in excess of its expected net realizable value and inventory in excess of expected requirements. The estimate of excess quantities is subjective and primarily dependent on our estimates of future demand for a particular product. If our estimate of future demand changes, we consider the impact on the reserve for excess inventory and adjust the reserve as required. Increases in the reserve are recorded as charges in cost of product sales.

We capitalize inventory costs associated with our products prior to regulatory approval when, based on management's judgment, future commercialization is considered probable and the future economic benefit is expected to be realized; otherwise, such costs are expensed as research and development. The determination to capitalize inventory costs is based on various factors, including status and expectations of the regulatory approval process, any known safety or efficacy concerns, potential labeling restrictions, and any other impediments to obtaining regulatory approval. We had no pre-approval inventory on our consolidated balance sheet as of December 31, 2020 or 2019.

Property, Plant and Equipment

Property, plant and equipment are stated at cost, less accumulated depreciation. Depreciation is computed using the straight-line method over the estimated useful lives of the assets. Estimated useful lives are as follows:

Buildings	40 years
Manufacturing equipment and machinery	5-10 years
Computer software and equipment	3-7 years
Furniture and fixtures	5 years

Leasehold improvements are amortized over the shorter of the noncancelable term of our leases or their economic useful lives. Maintenance and repairs are expensed as incurred.

Leases

We determine if an arrangement is a lease at inception. Operating leases are included in operating lease assets, other current liabilities, and operating lease liabilities on our consolidated balance sheets. Operating lease assets and operating lease liabilities are recognized based on the present value of the future minimum lease payments over the lease term at commencement date. In determining the net present value of lease payments, we use our incremental borrowing rate based on the information available at the lease commencement date. The operating lease asset also includes any lease payments made, reduced by lease incentives and increased by initial direct costs incurred. Our lease terms may include options to extend or terminate the lease when it is reasonably certain that we will exercise that option. Lease expense for minimum lease payments is recognized on a straight-line basis over the lease term.

We have lease agreements with lease and non-lease components, which are generally accounted for separately. For vehicle leases we account for the lease and non-lease components as a single lease component.

We have elected the short-term lease exemption and, therefore, do not recognize an operating lease asset or corresponding liability for lease arrangements with an original term of 12 months or less. Rent expense under short-term leases is recognized on a straight-line basis over the lease term.

Goodwill

Goodwill represents the excess of the acquisition consideration over the fair value of assets acquired and liabilities assumed. We have determined that we operate in a single segment and have a single reporting unit associated with the development and commercialization of pharmaceutical products. In performing the annual impairment test, the fair value of the reporting unit is compared to its corresponding carrying value, including goodwill. If the carrying value exceeds the fair value of the reporting unit an impairment loss will be recognized for the amount by which the reporting unit's carrying amount exceeds its fair value, not to exceed the carrying amount of goodwill. We test goodwill for impairment annually in October and when events or changes in circumstances indicate that the carrying value may not be recoverable.

Acquired In-Process Research and Development

The initial costs of rights to IPR&D projects acquired in an asset acquisition are expensed as IPR&D unless the project has an alternative future use. The fair value of IPR&D projects acquired in a business combination are capitalized and accounted for as indefinite-lived intangible assets until the underlying project receives regulatory approval, at which point the intangible asset will be accounted for as a finite-lived intangible asset, or discontinued, at which point the intangible asset will be written off. Development costs incurred after an acquisition are expensed as incurred.

Intangible Assets

Intangible assets with finite useful lives consist primarily of purchased developed technology and are amortized on a straight-line basis over their estimated useful lives, which range from two to eighteen years. The estimated useful lives associated with finite-lived intangible assets are consistent with the estimated lives of the associated products and may be modified when circumstances warrant.

Such assets are reviewed for impairment when events or circumstances indicate that the carrying value of an asset may not be recoverable. An impairment loss would be recognized when estimated undiscounted future cash flows expected to result from the use of an asset and its eventual disposition are less than its carrying amount. The amount of any impairment is measured as the difference between the carrying amount and the fair value of the impaired asset.

Revenue Recognition

Our revenue comprises product sales, net and royalty and contract revenues. Revenues are recognized when control of the promised goods or services is transferred to our customers, in an amount that reflects the consideration we expect to be entitled to in exchange for those goods or services. Prior to recognizing revenue, we make estimates of the transaction price, including variable consideration that is subject to a constraint. Amounts of variable consideration are included in the transaction price to the extent that it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved.

Product Sales, Net

Product sales revenue is recognized when control has transferred to the customer, which occurs at a point in time, which is typically on delivery to the customer or, in the case of products that are subject to consignment agreements, when the customer removes product from our consigned inventory location for shipment directly to a patient.

Reserves for Variable Consideration

Revenues from sales of products are recorded at the net sales price, which includes estimates of variable consideration for which reserves are established and which relate to returns, specialty distributor fees, wholesaler fees, prompt payment discounts, government rebates, government chargebacks, coupon programs and rebates under managed care plans and commercial payor contracts. Calculating certain of these reserves involves estimates and judgments and we determine their expected value based on sales or invoice data, contractual terms, historical utilization rates, new information regarding changes in these programs' regulations and guidelines that would impact the amount of the actual rebates, our expectations regarding future utilization rates for these programs and channel inventory data. These reserves reflect our best estimates of the amount of consideration to which we are entitled based on the terms of the contract. The amount of variable consideration that is included in the transaction price may be constrained, and is included in the net sales price only to the extent that it is probable that a significant reversal in the amount of the cumulative revenue recognized will not occur in a future period. We reassess our reserves for variable consideration at each reporting date. Historically, adjustments to estimates for these reserves have not been material.

Reserves for returns, specialty distributor fees, wholesaler fees, government rebates, coupon programs and rebates under managed care plans and commercial payor contracts are included within current liabilities in our consolidated balance sheets. Reserves for government chargebacks and prompt payment discounts are shown as a reduction in accounts receivable.

Royalties and Contract Revenues

We enter into out-licensing agreements under which we license certain rights to our products or product candidates to third parties. If a licensing arrangement includes multiple goods or services, we consider whether the license is distinct. If the license to our intellectual property is determined to be distinct from the other performance obligations identified in the arrangement, we recognize revenue from non-refundable, upfront fees allocated to the license when the license is transferred to the licensee and the licensee is able to use and benefit from the license. If the license to our intellectual property is determined not to be distinct, it is combined with other goods or services into a combined performance obligation. We consider whether the combined performance obligation is satisfied over time or at a point in time and, if over time, the appropriate method of measuring progress for purposes of recognizing revenue from non-refundable, upfront fees. We evaluate the measure of progress each reporting date and, if necessary, adjust the measure of performance and related revenue recognition.

At the inception of each arrangement that includes development milestone payments, we evaluate whether the milestones are considered probable of being reached and estimate the amount to be included in the transaction price using the most likely amount method. If it is probable that a significant revenue reversal would not occur, the associated milestone value is included in the transaction

price. Milestone payments that are not within our control or that of the licensee, such as regulatory approvals, are not considered probable of being achieved until those approvals are received. The transaction price is allocated to each performance obligation on a relative stand-alone selling price basis, for which we recognize revenue as or when the performance obligations under the contract are satisfied. At the end of each subsequent reporting period, we re-evaluate the probability of achievement of such development milestones and any related constraint, and if necessary, adjust our estimate of the overall transaction price.

For arrangements that include sales-based royalties and milestone payments based on the level of sales, and the license is deemed to be the predominant item to which the royalties and sales-based milestones relate, we recognize revenue at the later of (i) when the related sales occur, or (ii) when the performance obligation to which some or all of the royalty or sales-based milestone has been allocated has been satisfied (or partially satisfied).

Cost of Product Sales

Cost of product sales includes manufacturing and distribution costs, the cost of drug substance, royalties due to third parties on product sales, product liability and cargo insurance, FDA user fees, freight, shipping, handling and storage costs and salaries and related costs of employees involved with production. Excluded from cost of product sales shown on the consolidated statements of income is amortization of acquired developed technology of $259.6 million, $243.7 million and $201.3 million in 2020, 2019 and 2018, respectively.

Research and Development

Research and development expenses consist primarily of costs related to clinical studies and outside services, personnel expenses and other research and development costs, including milestone payments incurred prior to regulatory approval of products. Clinical study and outside services costs relate primarily to services performed by clinical research organizations, clinical studies performed at clinical sites, materials and supplies, and other third party fees. Personnel expenses relate primarily to salaries, benefits and share-based compensation. Other research and development expenses primarily include overhead allocations consisting of various support and facilities-related costs. Research and development costs are expensed as incurred. For product candidates that have not been approved by FDA, inventory used in clinical trials is expensed at the time of production and recorded as research and development expense. For products that have been approved by FDA, inventory used in clinical trials is expensed at the time the inventory is packaged for the trial.

Advertising Expenses

We expense the costs of advertising, including promotional expenses, as incurred. Advertising expenses were $99.6 million, $65.4 million and $37.4 million in 2020, 2019 and 2018, respectively.

Income Taxes

We use the asset and liability method of accounting for income taxes. Under this method, deferred tax assets and liabilities are determined based on differences between the financial statement carrying amount and the tax basis of assets and liabilities and are measured using enacted tax rates and laws that will be in effect when the differences are expected to reverse. A valuation allowance is provided when it is more-likely-than-not that some portion or all of a deferred tax asset will not be realized. We recognize the benefits of a tax position if it is “more-likely-than-not” of being sustained. A recognized tax benefit is then measured as the largest amount of tax benefit that is greater than fifty percent likely of being realized upon settlement. Interest and penalties related to unrecognized tax benefits are included in the income tax provision and classified with the related liability on the consolidated balance sheets.

Foreign Currency

Our functional and reporting currency is the U.S. dollar. The assets and liabilities of our subsidiaries that have a functional currency other than the U.S. dollar are translated into U.S. dollars at the exchange rate prevailing at the balance sheet date with the results of operations of subsidiaries translated at the weighted average exchange rate for the reporting period. The cumulative foreign currency translation adjustment is recorded as a component of accumulated other comprehensive income (loss) in shareholders’ equity.

Transactions in foreign currencies are translated into the functional currency of the relevant subsidiary at the weighted average exchange rate for the reporting period. Any monetary assets and liabilities arising from these transactions are translated into the relevant functional currency at exchange rates prevailing at the balance sheet date or on settlement. Resulting gains and losses are recorded in foreign exchange gain (loss) in our consolidated statements of income.

Deferred Financing Costs

Deferred financing costs are reported at cost, less accumulated amortization and are presented in the consolidated balance sheets as a direct deduction from the carrying value of the associated debt, with the exception of deferred financing costs associated with revolving-debt arrangements which are presented as assets. The related amortization expense is included in interest expense, net in our consolidated statements of income.

Contingencies

From time to time, we may become involved in claims and other legal matters arising in the ordinary course of business. We record accruals for loss contingencies to the extent that we conclude that it is probable that a liability has been incurred and the amount of the related loss can be reasonably estimated. Legal fees and other expenses related to litigation are expensed as incurred and included in selling, general and administrative expenses.

Share-Based Compensation

We account for compensation cost for all share-based awards at fair value on the date of grant. The fair value is recognized as expense over the service period, net of estimated forfeitures, using the straight-line method. The estimation of share-based awards that will ultimately vest requires judgment, and, to the extent actual results or updated estimates differ from current estimates, such amounts will be recorded as a cumulative adjustment in the period estimates are revised. We primarily consider historical experience when estimating expected forfeitures.

Recent Accounting Pronouncements

In December 2019, the FASB issued ASU No. 2019-12, "Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes", which simplifies the accounting for income taxes by removing certain exceptions to the general principles in the existing guidance for income taxes and making other minor improvements. The amendments are effective for annual reporting periods beginning after December 15, 2020 with early adoption permitted. The new guidance is not expected to have a material impact on our results of operations and financial position.

In August 2020, the FASB issued ASU No. 2020-06, "Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging— Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity", which simplifies the accounting for convertible instruments by eliminating the requirement to separate embedded conversion features from the host contract when the conversion features are not required to be accounted for as derivatives under Topic 815, Derivatives and Hedging, or that do not result in substantial premiums accounted for as paid-in capital. By removing the separation model, a convertible debt instrument will be reported as a single liability instrument with no separate accounting for embedded conversion features. This new standard also removes certain settlement conditions that are required for contracts to qualify for equity classification and eliminates the treasury stock method to calculate diluted earnings per share for convertible instruments and requires the use of the if-converted method. This new standard will be effective for us for fiscal years beginning after December 15, 2021, including interim periods within those fiscal years. Early adoption is permitted, but no earlier than the fiscal year beginning after December 15, 2020. We may elect to apply the amendments on a retrospective or modified retrospective basis. We are currently evaluating the timing, method of adoption and overall impact of this standard on our consolidated financial statements.

3. Asset Acquisitions, Collaborations and Disposition

Asset Acquisition and Exclusive License Agreement

In October 2020, we entered into an asset purchase and exclusive license agreement with SpringWorks Therapeutics, Inc., or SpringWorks, under which we acquired SpringWorks' fatty acid amide hydrolase, or FAAH, inhibitor program. Under the terms of the agreement, SpringWorks has assigned or exclusively licensed all assets relating to its FAAH inhibitor program to us, including assignment of SpringWorks' proprietary FAAH inhibitor PF-04457845, or PF-'845, now named JZP-150 and its license agreement with Pfizer, Inc., or Pfizer, under which Pfizer exclusively licensed PF-'845 to SpringWorks in 2017. In addition to assuming all milestone and royalty obligations owed by SpringWorks to Pfizer, we made an upfront payment of $35.0 million to SpringWorks, which was recorded as acquired in-process research and development, or IPR&D expense in our consolidated statement of income for the year ended December 31, 2020,

and may make potential milestone payments to SpringWorks of up to $375.0 million upon the achievement of certain clinical, regulatory and commercial milestones, and pay incremental tiered royalties to SpringWorks on future net sales of JZP-150 in the mid- to high-single digit percentages.

License Agreement

In December 2019, we entered into an exclusive license agreement, or original license agreement, with Pharma Mar, S.A., or PharmaMar, for development and U.S. commercialization of Zepzelca. Zepzelca was granted orphan drug designation for relapsed SCLC by FDA in August 2018. In December 2019, PharmaMar submitted a new drug application, or NDA, to FDA for accelerated approval of Zepzelca for relapsed SCLC based on data from a Phase 2 trial, and in February 2020, FDA accepted the NDA for filing with priority review. In June 2020, FDA approved the NDA for Zepzelca for the treatment of adult patients with metastatic SCLC with disease progression on or after platinum-based chemotherapy.

Under the terms of the original license agreement, which became effective in January 2020 upon expiration of the waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, we paid PharmaMar an upfront payment of $200.0 million, which was recorded as acquired IPR&D expense in our consolidated statement of income for the year ended December 31, 2020. In June 2020, we made a milestone payment of $100.0 million to PharmaMar following FDA accelerated approval of Zepzelca, which was capitalized as an intangible asset on our consolidated balance sheet.

PharmaMar is eligible to receive potential future regulatory milestone payments of up to $150.0 million upon the achievement of continued U.S. regulatory approval of Zepzelca following the successful completion of confirmatory trials within certain timelines. PharmaMar is also eligible to receive up to $550.0 million in potential U.S. commercial milestone payments, as well as incremental tiered royalties on future net sales of Zepzelca ranging from the high teens up to 30 percent. PharmaMar may receive additional payments on approval of other indications, with any such payments creditable against commercial milestone payment obligations. PharmaMar retains production rights for Zepzelca and will supply the product to us.

In October 2020, we entered into an amendment and restatement of the original license agreement with PharmaMar, or the amended license agreement, which expanded our exclusive license to include rights to develop and commercialize Zepzelca in Canada.

Asset Acquisition

In August 2019, we announced the acquisition of Cavion, Inc., or Cavion, a clinical-stage biotechnology company, for an upfront payment of $52.5 million with the potential for additional payments of up to $260.0 million upon the achievement of certain clinical, regulatory and commercial milestones, for a total potential consideration of $312.5 million. As a result of the acquisition, we added JZP-385, a modulator of T-type calcium channels, for the potential treatment of essential tremor, to our clinical pipeline. The acquisition of Cavion was accounted for as an asset acquisition because it did not meet the definition of a business.

The following table summarizes the total consideration for the acquisition and the value of assets acquired and liabilities assumed (in thousands):

Consideration	
Upfront payment for acquisition of Cavion's outstanding shares	$ 52,500
Cash acquired	397
Working capital adjustment	(255)
Transaction costs	2,829
Total consideration	$ 55,471
Assets Acquired and Liabilities Assumed	
Cash	$ 397
In-process research and development	48,275
Deferred tax assets	7,995
Other assets and liabilities	(1,196)
Total net assets acquired	$ 55,471

The value attributed to in-process research and development relates to JZP-385 and was expensed as it was determined to have no alternative future use.

Collaboration and License Agreement

In January 2019, we entered into a strategic collaboration agreement with Codiak BioSciences, Inc., or Codiak, focused on the research, development and commercialization of exosome therapeutics to treat cancer. Codiak granted us an exclusive, worldwide, royalty-bearing license to develop, manufacture and commercialize therapeutic candidates directed at five targets to be developed using Codiak's engEx™ precision engineering platform for exosome therapeutics.

Under the terms of the agreement, Codiak is responsible for the execution of preclinical and early clinical development of therapeutic candidates directed at all five targets through Phase 1/2 proof of concept studies. Following the conclusion of the applicable Phase 1/2 study, we will be responsible for future development, potential regulatory submissions and commercialization for each product. Codiak has the option to participate in co-commercialization and cost/profit-sharing in the U.S. and Canada on up to two products.

As part of the agreement, we paid Codiak an upfront payment of $56.0 million in January 2019, which was recorded as acquired IPR&D expense in our consolidated statement of income for the year ended December 31, 2019. Codiak is eligible to receive up to $20.0 million in preclinical development milestone payments. Codiak is also eligible to receive milestone payments totaling up to $200.0 million per target based on investigational new drug application acceptance, clinical and regulatory milestones, including approvals in the U.S., the European Union and Japan, and certain sales milestones. Codiak is also eligible to receive tiered royalties on net sales of each approved product.

Collaboration and Option Agreement

In 2017, we entered into a collaboration and option agreement with ImmunoGen, Inc. and we paid them a non-refundable upfront payment of $75.0 million, which was charged to acquired IPR&D expense upon closing of the transaction.

This agreement was amended in November 2019. Under the amended agreement we had the right to opt into an exclusive, worldwide license to develop and commercialize IMGN632, a CD123-targeted antibody-drug conjugate for hematological malignancies. In December 2020, we exercised our opt-out rights with respect to IMGN632, thereby relinquishing the development and commercialization option.

Disposition

In June 2018, we entered into an asset purchase agreement, or APA, with TerSera Therapeutics LLC, or TerSera, pursuant to which TerSera agreed to purchase substantially all of our assets related to the manufacture, marketing and sale of Prialt, but excluding accounts receivable, and to assume certain related liabilities as set forth in the APA. We entered into an amendment to the APA, and the transaction closed, in September 2018. The total sales price was $80.0 million, of which we received $50.0 million at closing and installment payments of $15.0 million, less certain reimbursable expenses, in December 2020 and December 2019.

The related assets met the assets held for sale criteria and were reclassified to assets held for sale as of June 30, 2018. We adjusted the carrying value of the assets held for sale to fair value less costs to sell, which resulted in an impairment charge of $42.9 million in our consolidated statement of income in 2018, primarily related to the carrying balance of intangible assets. Upon closing, we recognized a loss on disposal of $0.5 million within selling, general and administrative expenses in our consolidated statement of income in 2018.

We determined that the disposal of these assets did not qualify for reporting as a discontinued operation since it did not represent a strategic shift that had or will have a major effect on our operations and financial results.

4. Cash and Available-for-Sale Securities

Cash and cash equivalents and investments consisted of the following (in thousands):

	December 31, 2020					
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value	Cash and Cash Equivalents	Investments
Cash	$ 517,117	$—	$—	$ 517,117	$ 517,117	$ —
Time deposits	1,360,000	—	—	1,360,000	285,000	1,075,000
Money market funds	255,652	—	—	255,652	255,652	—
Totals	$2,132,769	$—	$—	$2,132,769	$1,057,769	$1,075,000

	December 31, 2019					
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value	Cash and Cash Equivalents	Investments
Cash	$ 333,172	$—	$—	$ 333,172	$333,172	$ —
Time deposits	460,000	—	—	460,000	20,000	440,000
Money market funds	284,172	—	—	284,172	284,172	—
Totals	$1,077,344	$—	$—	$1,077,344	$637,344	$440,000

Cash equivalents and investments are considered available-for-sale securities. Our investment balances represent time deposits with original maturities of greater than three months and less than one year. Interest income from available-for-sale securities was $11.1 million, $20.5 million and $16.9 million in 2020, 2019 and 2018, respectively.

5. Fair Value Measurement

The following table summarizes, by major security type, our available-for-sale securities and derivative contracts that were measured at fair value on a recurring basis and were categorized using the fair value hierarchy (in thousands):

	December 31, 2020			December 31, 2019		
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Total Estimated Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Total Estimated Fair Value
Assets:						
Available-for-sale securities:						
Time deposits	$ —	$1,360,000	$1,360,000	$ —	$460,000	$460,000
Money market funds	255,652	—	255,652	284,172	—	284,172
Foreign exchange forward contracts	—	11,907	11,907	—	2,508	2,508
Totals	$255,652	$1,371,907	$1,627,559	$284,172	$462,508	$746,680
Liabilities:						
Interest rate contracts	$ —	$ 2,835	$ 2,835	$ —	$ 1,515	$ 1,515
Foreign exchange forward contracts	—	790	790	—	182	182
Totals	$ —	$ 3,625	$ 3,625	$ —	$ 1,697	$ 1,697

As of December 31, 2020, our available-for-sale securities included time deposits and money market funds and their carrying values were approximately equal to their fair values. Time deposits were measured at fair value using Level 2 inputs and money market funds

were measured using quoted prices in active markets, which represent Level 1 inputs. Level 2 inputs, obtained from various third party data providers, represent quoted prices for similar assets in active markets, or these inputs were derived from observable market data, or if not directly observable, were derived from or corroborated by other observable market data.

Our derivative assets and liabilities include interest rate and foreign exchange derivatives that are measured at fair value using observable market inputs such as forward rates, interest rates, our own credit risk as well as an evaluation of our counterparties' credit risks. Based on these inputs, the derivative assets and liabilities are classified within Level 2 of the fair value hierarchy.

There were no transfers between the different levels of the fair value hierarchy in 2020 or in 2019.

As of December 31, 2020 and 2019, the carrying amount of investments measured using the measurement alternative for equity investments without a readily determinable fair value was $4.5 million. The carrying amount, which is recorded within other non-current assets, represents the purchase price paid in 2018.

As of December 31, 2020, the estimated fair values of our 1.875% exchangeable senior notes due 2021, or the 2021 Notes, our 1.50% exchangeable senior notes due 2024, or the 2024 Notes, and our 2.00% exchangeable senior notes due 2026, or the 2026 Notes, were approximately $224 million, $615 million and $1.3 billion, respectively. The fair values of the 2021 Notes, the 2024 Notes and the 2026 Notes, which we refer to collectively as the Exchangeable Senior Notes, were estimated using quoted market prices obtained from brokers (Level 2). The estimated fair value of our borrowings under our term loan was approximately equal to its book value based on the borrowing rates currently available for variable rate loans (Level 2).

6. Derivative Instruments and Hedging Activities

We are exposed to certain risks arising from operating internationally, including fluctuations in interest rates on our outstanding term loan borrowings and fluctuations in foreign exchange rates primarily related to the translation of euro-denominated net monetary liabilities, including intercompany balances, held by subsidiaries with a U.S. dollar functional currency. We manage these exposures within specified guidelines through the use of derivatives. All of our derivative instruments are utilized for risk management purposes, and we do not use derivatives for speculative trading purposes.

To achieve a desired mix of floating and fixed interest rates on our variable rate debt, we entered into interest rate swap agreements in March 2017 which are effective until July 2021. These agreements hedge contractual term loan interest rates. As of December 31, 2020 and 2019, the interest rate swap agreements had a notional amount of $300.0 million. As a result of these agreements, the interest rate on a portion of our term loan borrowings was fixed at 1.895%, plus the borrowing spread, until July 2021.

The effective portion of changes in the fair value of derivatives designated as, and that qualify as, cash flow hedges is recorded in accumulated other comprehensive loss and is subsequently reclassified into earnings in the period that the hedged forecasted transaction affects earnings. The impact on accumulated other comprehensive loss and earnings from derivative instruments that qualified as cash flow hedges was as follows (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Interest Rate Contracts:			
Gain (loss) recognized in accumulated other comprehensive loss, net of tax	$(4,543)	$(3,903)	$2,274
Loss (gain) reclassified from accumulated other comprehensive loss to interest expense, net of tax	$ 3,401	$ (979)	$ (252)

Assuming no change in LIBOR-based interest rates from market rates as of December 31, 2020, $2.5 million of losses, net of tax, recognized in accumulated other comprehensive loss will be reclassified to earnings over the next 12 months.

We enter into foreign exchange forward contracts, with durations of up to 12 months, designed to limit the exposure to fluctuations in foreign exchange rates related to the translation of certain non-U.S. dollar denominated liabilities, including intercompany balances. Hedge accounting is not applied to these derivative instruments as gains and losses on these hedge transactions are designed to offset gains and losses on underlying balance sheet exposures. As of December 31, 2020 and 2019, the notional amount of foreign exchange contracts where hedge accounting was not applied was $357.4 million and $180.9 million, respectively.

The foreign exchange loss in our consolidated statements of income included the following gains and losses associated with foreign exchange contracts not designated as hedging instruments (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Foreign Exchange Forward Contracts:			
Gain (loss) recognized in foreign exchange loss	$19,843	$(6,192)	$(14,648)

The cash flow effects of our derivative contracts are included within net cash provided by operating activities in the consolidated statements of cash flows.

The following tables summarize the fair value of outstanding derivatives (in thousands):

	December 31, 2020			
	Asset Derivatives		Liability Derivatives	
	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
Derivatives designated as hedging instruments:				
Interest rate contracts	Other current assets	$ —	Accrued liabilities	$2,835
Derivatives not designated as hedging instruments:				
Foreign exchange forward contracts	Other current assets	11,907	Accrued liabilities	790
Total fair value of derivative instruments		$11,907		$3,625

	December 31, 2019			
	Asset Derivatives		Liability Derivatives	
	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
Derivatives designated as hedging instruments:				
Interest rate contracts	Other current assets	$ —	Accrued liabilities	$ 855
			Other non-current liabilities	660
Derivatives not designated as hedging instruments:				
Foreign exchange forward contracts	Other current assets	2,508	Accrued liabilities	182
Total fair value of derivative instruments		$2,508		$1,697

Although we do not offset derivative assets and liabilities within our consolidated balance sheets, our International Swap and Derivatives Association agreements provide for net settlement of transactions that are due to or from the same counterparty upon early termination of the agreement due to an event of default or other termination event. The following tables summarize the potential effect on our consolidated balance sheets of offsetting our interest rate contracts and foreign exchange forward contracts subject to such provisions (in thousands):

	December 31, 2020					
				Gross Amounts Not Offset in the Consolidated Balance Sheet		
Description	Gross Amounts of Recognized Assets/ Liabilities	Gross Amounts Offset in the Consolidated Balance Sheet	Net Amounts of Assets/ Liabilities Presented in the Consolidated Balance Sheet	Derivative Financial Instruments	Cash Collateral Received (Pledged)	Net Amount
Derivative assets	$11,907	$—	$11,907	$(2,207)	$—	$ 9,700
Derivative liabilities	$ (3,625)	$—	$ (3,625)	$ 2,207	$—	$(1,418)

	December 31, 2019					
				Gross Amounts Not Offset in the Consolidated Balance Sheet		
Description	Gross Amounts of Recognized Assets/ Liabilities	Gross Amounts Offset in the Consolidated Balance Sheet	Net Amounts of Assets/ Liabilities Presented in the Consolidated Balance Sheet	Derivative Financial Instruments	Cash Collateral Received (Pledged)	Net Amount
Derivative assets	$ 2,508	$—	$ 2,508	$(596)	$—	$ 1,912
Derivative liabilities	$(1,697)	$—	$(1,697)	$ 596	$—	$(1,101)

7. Inventories

Inventories consisted of the following (in thousands):

	December 31,	
	2020	2019
Raw materials	$16,003	$13,595
Work in process	45,758	36,658
Finished goods	33,635	28,355
Total inventories	$95,396	$78,608

8. Property, Plant and Equipment

Property, plant and equipment consisted of the following (in thousands):

	December 31,	
	2020	2019
Leasehold improvements	$ 54,113	$ 52,294
Land and buildings	47,555	47,053
Manufacturing equipment and machinery	33,465	28,860
Computer software	22,781	25,680
Computer equipment	18,749	16,577
Furniture and fixtures	11,598	11,152
Construction-in-progress	7,262	5,147
Subtotal	195,523	186,763
Less accumulated depreciation and amortization	(67,588)	(55,257)
Property, plant and equipment, net	$127,935	$131,506

Depreciation and amortization expense on property, plant and equipment amounted to $18.7 million, $15.3 million and $15.2 million for the years ended December 31, 2020, 2019 and 2018, respectively.

9. Goodwill and Intangible Assets

The gross carrying amount of goodwill was as follows (in thousands):

Balance at December 31, 2019	$920,018
Foreign exchange	38,285
Balance at December 31, 2020	$958,303

The gross carrying amounts and net book values of our intangible assets were as follows (in thousands):

	December 31, 2020				December 31, 2019		
	Remaining Weighted-Average Useful Life (In years)	Gross Carrying Amount	Accumulated Amortization	Net Book Value	Gross Carrying Amount	Accumulated Amortization	Net Book Value
Acquired developed technologies	12.6	$3,379,162	$(1,184,111)	$2,195,051	$3,166,485	$(864,834)	$2,301,651
Manufacturing contracts	—	13,135	(13,135)	—	12,025	(12,025)	—
Trademarks	—	2,917	(2,917)	—	2,890	(2,890)	—
Priority review voucher	—	—	—	—	111,101	(111,101)	—
Total finite-lived intangible assets		3,395,214	(1,200,163)	2,195,051	3,292,501	(990,850)	2,301,651
Acquired IPR&D assets		—	—	—	139,326	—	139,326
Total intangible assets		$3,395,214	$(1,200,163)	$2,195,051	$3,431,827	$(990,850)	$2,440,977

The decrease in the gross carrying amount of intangible assets as of December 31, 2020 compared to December 31, 2019 reflects the impairment of our acquired IPR&D assets of $136.1 million following the decision to stop enrollment in our Phase 3 clinical study of defibrotide for the prevention of VOD due to a determination that the study is highly unlikely to reach one of its primary endpoints and the redemption of our priority review voucher in January 2020, partially offset by the capitalization of milestone payments of $100.0 million and $13.0 million triggered by FDA approval of Zepzelca in June 2020 and European Marketing Authorization of Sunosi in January 2020, respectively, and the positive impact of foreign currency translation adjustments due to the strengthening of the euro against the U.S. dollar.

The assumptions and estimates used to determine future cash flows and remaining useful lives of our intangible and other long-lived assets are complex and subjective. They can be affected by various factors, including external factors, such as industry and economic trends, and internal factors such as changes in our business strategy and our forecasts for specific product lines.

Based on finite-lived intangible assets recorded as of December 31, 2020, and assuming the underlying assets will not be impaired and that we will not change the expected lives of any other assets, future amortization expenses were estimated as follows (in thousands):

Year Ending December 31,	Estimated Amortization Expense
2021	$ 223,608
2022	174,468
2023	174,468
2024	174,468
2025	174,468
Thereafter	1,273,571
Total	$2,195,051

10. Accrued Liabilities

Accrued liabilities consisted of the following (in thousands):

	December 31, 2020	December 31, 2019
Rebates and other sales deductions	$127,534	$ 96,860
Employee compensation and benefits	102,601	80,531
Sales returns reserve	18,368	3,462
Royalties	15,230	6,931
Current portion of operating lease liabilities	14,457	12,728
Inventory-related accruals	9,809	7,816
Clinical trial accruals	9,108	3,141
Selling and marketing accruals	6,742	10,946
Consulting and professional services	6,660	7,665
Accrued interest	5,722	7,540
Derivative instrument liabilities	3,625	1,037
Accrued construction-in-progress	1,119	3,015
Accrued collaboration expenses	444	2,494
Other	31,313	25,520
Total accrued liabilities	$352,732	$269,686

11. Debt

The following table summarizes the carrying amount of our indebtedness (in thousands):

	December 31, 2020	December 31, 2019
2021 Notes	$ 218,812	$ 575,000
Unamortized discount and debt issuance costs on 2021 Notes	(5,883)	(38,865)
2021 Notes, net	212,929	536,135
2024 Notes	575,000	575,000
Unamortized discount and debt issuance costs on 2024 Notes	(95,275)	(117,859)
2024 Notes, net	479,725	457,141
2026 Notes	1,000,000	—
Unamortized discount and debt issuance costs on 2026 Notes	(179,518)	—
2026 Notes, net	820,482	—
Term loan	581,702	613,981
Total debt	2,094,838	1,607,257
Less current portion	246,322	33,387
Total long-term debt	$1,848,516	$1,573,870

Credit Agreement

On June 18, 2015, Jazz Pharmaceuticals plc, as guarantor, and certain of our wholly owned subsidiaries, as borrowers, entered into a credit agreement, or the 2015 credit agreement, that provided for a $750.0 million principal amount term loan, which was drawn in full at closing, and a $750.0 million revolving credit facility, of which $160.0 million was drawn at closing and subsequently repaid. We used the proceeds from initial borrowings under the 2015 credit agreement to repay in full the $893.1 million principal amount of term loans outstanding under the credit agreement that we entered into in June 2012, as subsequently amended, which we refer to as the previous credit agreement, and to pay related fees and expenses. The previous credit agreement was terminated upon repayment of the term loans outstanding thereunder.

On July 12, 2016, we amended the 2015 credit agreement to provide for a revolving credit facility of $1.25 billion and a $750.0 million term loan facility. We used the proceeds of $1.0 billion of loans under the revolving credit facility, together with cash on hand, to fund the acquisition of Celator Pharmaceuticals, Inc., or the Celator Acquisition.

On June 7, 2018, we entered into the second amendment to the 2015 credit agreement to provide for a revolving credit facility of $1.6 billion, which replaced the existing revolving credit facility of $1.25 billion, and a new $667.7 million term loan facility, which replaced the $750.0 million term loan facility, of which $584.3 million principal amount was outstanding as of December 31, 2020. We refer to the 2015 credit agreement as amended by the first and second amendments as the amended credit agreement.

Under the amended credit agreement, the term loan matures on June 7, 2023 and the revolving credit facility terminates, and any loans outstanding thereunder become due and payable, on June 7, 2023.

Borrowings under the amended credit agreement bear interest, at our option, at a rate equal to either (a) the LIBOR rate, plus an applicable margin ranging from 1.375% to 1.750% per annum, based upon our secured leverage ratio, or (b) the prime lending rate, plus an applicable margin ranging from 0.375% to 0.750% per annum, based upon our secured leverage ratio. The revolving credit facility has a commitment fee payable on the undrawn amount ranging from 0.25% to 0.35% per annum based upon our secured leverage ratio.

As of December 31, 2020, the interest rate on the term loan was 1.52% and the effective interest rate was 3.66%. As of December 31, 2020, we had undrawn revolving credit facilities totaling $1.6 billion.

Jazz Pharmaceuticals plc and certain of our wholly owned subsidiaries are borrowers under the amended credit agreement. The borrowers' obligations under the amended credit agreement and any hedging or cash management obligations entered into with a lender are guaranteed on a senior secured basis by Jazz Pharmaceuticals plc and certain of our subsidiaries (including the issuer of the Exchangeable Senior Notes as described below) and are secured by substantially all of Jazz Pharmaceuticals plc's, the borrowers' and the guarantor subsidiaries' assets.

We may make voluntary prepayments of principal at any time without payment of a premium. We are required to make mandatory prepayments of the term loan (without payment of a premium) with (1) net cash proceeds from certain non-ordinary course asset sales (subject to other exceptions), (2) net cash proceeds from issuances of debt (other than certain permitted debt), and (3) casualty proceeds and condemnation awards (subject to other exceptions).

Principal repayments of the term loan, which are due quarterly, are equal to 5.0% per annum of the principal amount outstanding on June 7, 2018 of $667.7 million, with any remaining balance payable on the maturity date.

The amended credit agreement contains financial covenants that require Jazz Pharmaceuticals plc and our restricted subsidiaries to not (a) exceed a maximum secured net leverage ratio or (b) fall below a cash interest coverage ratio. As of December 31, 2020, we were in compliance with these financial covenants.

Exchangeable Senior Notes Due 2026

In the second quarter of 2020, Jazz Investments I Limited, our wholly owned subsidiary, completed a private placement of $1.0 billion principal amount of the 2026 Notes. We used a portion of the net proceeds from this offering to repurchase for cash $332.9 million aggregate principal amount of the 2021 Notes through privately-negotiated transactions concurrently with the offering of the 2026 Notes. Interest on the 2026 Notes is payable semi-annually in cash in arrears on June 15 and December 15 of each year, beginning on December 15, 2020, at a rate of 2.00% per year. In certain circumstances, we may be required to pay additional amounts as a result of any applicable tax withholding or deductions required in respect of payments on the 2026 Notes. The 2026 Notes mature on June 15, 2026, unless earlier exchanged, repurchased or redeemed.

The holders of the 2026 Notes have the ability to require us to repurchase all or a portion of their 2026 Notes for cash in the event we undergo certain fundamental changes, such as specified change of control transactions, our liquidation or dissolution or the delisting of our ordinary shares from any of The New York Stock Exchange, The Nasdaq Global Market, The Nasdaq Global Select Market or The Nasdaq Capital Market (or any of their respective successors). Additionally, the terms and covenants in the indenture related to the 2026 Notes include certain events of default after which the 2026 Notes may be due and payable immediately. Prior to June 15, 2026, we may redeem

the 2026 Notes, in whole but not in part, subject to compliance with certain conditions, if we have, or on the next interest payment date would, become obligated to pay to the holder of any 2026 Notes additional amounts as a result of certain tax-related events. We also may redeem the 2026 Notes on or after June 20, 2023 and prior to March 15, 2026, in whole or in part, if the last reported sale price per ordinary share has been at least 130% of the exchange price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period ending on, and including, the trading day immediately preceding the date on which we provide the notice of redemption.

The 2026 Notes are exchangeable at an initial exchange rate of 6.4182 ordinary shares per $1,000 principal amount of 2026 Notes, which is equivalent to an initial exchange price of approximately $155.81 per ordinary share. Upon exchange, the 2026 Notes may be settled in cash, ordinary shares or a combination of cash and ordinary shares, at our election. Our intent and policy is to settle the principal amount of the 2026 Notes in cash upon exchange. The exchange rate will be subject to adjustment in some events but will not be adjusted for any accrued and unpaid interest. In addition, following certain make-whole fundamental changes occurring prior to the maturity date of the 2026 Notes or upon our issuance of a notice of redemption, we will in certain circumstances increase the exchange rate for holders of the 2026 Notes who elect to exchange their 2026 Notes in connection with that make-whole fundamental change or during the related redemption period. Prior to March 15, 2026, the 2026 Notes will be exchangeable only upon satisfaction of certain conditions and during certain periods, and thereafter, at any time until the close of business on the second scheduled trading day immediately preceding the maturity date.

In accounting for the issuance of the 2026 Notes, we separated the 2026 Notes into liability and equity components. The carrying amount of the liability component was calculated by measuring the estimated fair value of a similar liability that does not have an associated exchange feature. The carrying amount of the equity component representing the exchange option was determined by deducting the fair value of the liability component from the face value of the 2026 Notes as a whole. The excess of the principal amount of the liability component over its carrying amount will be amortized to interest expense over the expected life of the 2026 Notes using the effective interest method with an effective interest rate of 5.98% per annum. We have determined the expected life of the 2026 Notes to be equal to the original 6-year term. The equity component is not remeasured as long as it continues to meet the conditions for equity classification. As of December 31, 2020, the “if converted value” of the 2026 Notes exceeded the principal amount by $59.3 million.

We allocated the total issuance costs incurred of $18.6 million to the liability and equity components based on their relative values. Issuance costs attributable to the liability component will be amortized to expense over the term of the 2026 Notes, and issuance costs attributable to the equity component were included with the equity component in our shareholders’ equity.

As of December 31, 2020, the carrying value of the equity component of the 2026 Notes, net of equity issuance costs, was $176.3 million.

Exchangeable Senior Notes Due 2024

In 2017, we completed a private placement of $575.0 million principal amount of 2024 Notes. We used the net proceeds from this offering to repay $500.0 million in outstanding loans under the revolving credit facility and to pay related fees and expenses. We used the remainder of the net proceeds for general corporate purposes. Interest on the 2024 Notes is payable semi-annually in cash in arrears on February 15 and August 15 of each year, beginning on February 15, 2018, at a rate of 1.50% per year. In certain circumstances, we may be required to pay additional amounts as a result of any applicable tax withholding or deductions required in respect of payments on the 2024 Notes. The 2024 Notes mature on August 15, 2024, unless earlier exchanged, repurchased or redeemed.

The holders of the 2024 Notes have the ability to require us to repurchase all or a portion of their 2024 Notes for cash in the event we undergo certain fundamental changes, such as specified change of control transactions, our liquidation or dissolution or the delisting of our ordinary shares from The Nasdaq Global Select Market. Prior to August 15, 2024, we may redeem the 2024 Notes, in whole but not in part, subject to compliance with certain conditions, if we have, or on the next interest payment date would, become obligated to pay to the holder of any 2024 Notes additional amounts as a result of certain tax-related events. We also may redeem the 2024 Notes on or after August 20, 2021, in whole or in part, if the last reported sale price per ordinary share has been at least 130% of the exchange price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period ending on, and including, the trading day immediately preceding the date on which we provide the notice of redemption.

The 2024 Notes are exchangeable at an initial exchange rate of 4.5659 ordinary shares per $1,000 principal amount of 2024 Notes, which is equivalent to an initial exchange price of approximately $219.02 per ordinary share. Upon exchange, the 2024 Notes may be

settled in cash, ordinary shares or a combination of cash and ordinary shares, at our election. Our intent and policy is to settle the principal amount of the 2024 Notes in cash upon exchange. The exchange rate will be subject to adjustment in some events but will not be adjusted for any accrued and unpaid interest. In addition, following certain make-whole fundamental changes occurring prior to the maturity date of the 2024 Notes or upon our issuance of a notice of redemption, we will in certain circumstances increase the exchange rate for holders of the 2024 Notes who elect to exchange their 2024 Notes in connection with that make-whole fundamental change or during the related redemption period. Prior to May 15, 2024, the 2024 Notes will be exchangeable only upon satisfaction of certain conditions and during certain periods, and thereafter, at any time until the close of business on the second scheduled trading day immediately preceding the maturity date.

In accounting for the issuance of the 2024 Notes, we separated the 2024 Notes into liability and equity components. The carrying amount of the liability component was calculated by measuring the estimated fair value of a similar liability that does not have an associated exchange feature. The carrying amount of the equity component representing the exchange option was determined by deducting the fair value of the liability component from the face value of the 2024 Notes as a whole. The excess of the principal amount of the liability component over its carrying amount will be amortized to interest expense over the expected life of the 2024 Notes using the effective interest method with an effective interest rate of 6.8% per annum. We have determined the expected life of the 2024 Notes to be equal to the original seven-year term. The equity component is not remeasured as long as it continues to meet the conditions for equity classification. As of December 31, 2020 and 2019, the "if-converted value" did not exceed the principal amount of the 2024 Notes.

We allocated the total issuance costs incurred of $15.6 million to the liability and equity components based on their relative values. Issuance costs attributable to the liability component will be amortized to expense over the term of the 2024 Notes, and issuance costs attributable to the equity component were included with the equity component in our shareholders' equity.

As of December 31, 2020 and 2019, the carrying value of the equity component of the 2024 Notes, net of equity issuance costs, was $149.8 million.

Exchangeable Senior Notes Due 2021

In 2014, we completed a private placement of the 2021 Notes. Interest on the 2021 Notes is payable semi-annually in cash in arrears on February 15 and August 15 of each year, beginning on February 15, 2015, at a rate of 1.875% per year. In certain circumstances, we may be required to pay additional amounts as a result of any applicable tax withholding or deductions required in respect of payments on the 2021 Notes. The 2021 Notes mature on August 15, 2021, unless earlier exchanged, repurchased or redeemed.

The holders of the 2021 Notes have the ability to require us to repurchase all or a portion of their 2021 Notes for cash in the event Jazz Pharmaceuticals plc undergoes certain fundamental changes. Prior to August 15, 2021, we may redeem the 2021 Notes, in whole but not in part, subject to compliance with certain conditions, if we have, or on the next interest payment date would, become obligated to pay to the holder of any 2021 Note additional amounts as a result of certain tax-related events. We also may redeem the 2021 Notes on or after August 20, 2018, in whole or in part, if the last reported sale price per ordinary share has been at least 130% of the exchange price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period ending on, and including, the trading day immediately preceding the date on which we provide the notice of redemption.

The 2021 Notes are exchangeable at an initial exchange rate of 5.0057 ordinary shares per $1,000 principal amount of 2021 Notes, which is equivalent to an initial exchange price of approximately $199.77 per ordinary share. Upon exchange, the 2021 Notes may be settled in cash, ordinary shares or a combination of cash and ordinary shares, at our election. Our intent and policy is to settle the principal amount of the 2021 Notes in cash upon exchange. The exchange rate will be subject to adjustment in some events but will not be adjusted for any accrued and unpaid interest. In addition, following certain make-whole fundamental changes occurring prior to the maturity date of the 2021 Notes or upon our issuance of a notice of redemption, we will in certain circumstances increase the exchange rate for holders of the 2021 Notes who elect to exchange their 2021 Notes in connection with that make-whole fundamental change or during the related redemption period. Prior to February 15, 2021, the 2021 Notes will be exchangeable only upon satisfaction of certain conditions and during certain periods, and thereafter, at any time until the close of business on the second scheduled trading day immediately preceding the maturity date.

In accounting for the issuance of the 2021 Notes, we separated the 2021 Notes into liability and equity components. The carrying amount of the liability component was calculated by measuring the estimated fair value of a similar liability that does not have an

associated exchange feature. The carrying amount of the equity component representing the exchange option was determined by deducting the fair value of the liability component from the face value of the 2021 Notes as a whole. The excess of the principal amount of the liability component over its carrying amount will be amortized to interest expense over the expected life of the 2021 Notes using the effective interest method with an effective interest rate of 6.4% per annum. We have determined the expected life of the 2021 Notes to be equal to the original seven-year term. The equity component is not remeasured as long as it continues to meet the conditions for equity classification. As of December 31, 2020 and 2019, the "if-converted value" did not exceed the principal amount of the 2021 Notes.

We allocated the total issuance costs incurred of $16.1 million to the liability and equity components based on their relative values. Issuance costs attributable to the liability component will be amortized to expense over the term of the 2021 Notes, and issuance costs attributable to the equity component were included with the equity component in our shareholders' equity.

Concurrently with the offering of the 2026 Notes, we repurchased $332.9 million aggregate principal amount of the 2021 Notes. In the third quarter of 2020, we repurchased a further $23.3 million aggregate principal amount of the 2021 Notes. We recorded a loss on extinguishment of debt of $5.1 million in 2020 due to the write-off of unamortized debt issuance costs and debt discount related to the partial repurchase of the 2021 Notes. We accounted for the difference between the consideration transferred and the fair value of the liability component of the 2021 Notes that were repurchased, of $12.5 million, as a reduction to the equity component. As of December 31, 2020, the principal amount of the 2021 Notes remaining was $218.8 million.

As of December 31, 2020 and 2019, the carrying value of the equity component of the 2021 Notes, net of equity issuance costs, was $114.4 million and $126.9 million respectively.

The Exchangeable Senior Notes were issued by Jazz Investments I Limited, or the Issuer, a 100%-owned finance subsidiary of Jazz Pharmaceuticals plc. The Exchangeable Senior Notes are senior unsecured obligations of the Issuer and are fully and unconditionally guaranteed on a senior unsecured basis by Jazz Pharmaceuticals plc. No subsidiary of Jazz Pharmaceuticals plc guaranteed the Exchangeable Senior Notes. Subject to certain local law restrictions on payment of dividends, among other things, and potential negative tax consequences, we are not aware of any significant restrictions on the ability of Jazz Pharmaceuticals plc to obtain funds from the Issuer or Jazz Pharmaceuticals plc's other subsidiaries by dividend or loan, or any legal or economic restrictions on the ability of the Issuer or Jazz Pharmaceuticals plc's other subsidiaries to transfer funds to Jazz Pharmaceuticals plc in the form of cash dividends, loans or advances. There is no assurance that in the future such restrictions will not be adopted.

For the years ended December 31, 2020, 2019 and 2018, we recognized $76.1 million, $59.1 million and $56.7 million, respectively, in interest expense, net related to the contractual coupon rate and amortization of the debt discount on the Exchangeable Senior Notes.

Scheduled maturities with respect to our long-term debt are as follows (in thousands):

Year Ending December 31,	Scheduled Long-Term Debt Maturities
2021	$ 252,199
2022	33,387
2023	517,494
2024	575,000
Thereafter	1,000,000
Total	$2,378,080

12. Leases

We have noncancelable operating leases for our office buildings and we are obligated to make payments under noncancelable operating leases for automobiles used by our sales force.

The components of the lease expense for the years ended December 31, 2020 and 2019 were as follows (in thousands):

	Year Ended December 31,	
Lease Cost	**2020**	**2019**
Operating lease cost	$21,755	$23,087
Short-term lease cost	4,079	2,465
Variable lease cost	3	5
Sublease income	(224)	(634)
Net lease cost	$25,613	$24,923

Supplemental balance sheet information related to operating leases was as follows (in thousands):

		December 31,	
Leases	**Classification**	**2020**	**2019**
Assets			
Operating lease assets	Operating lease assets	$129,169	$139,385
Liabilities			
Current			
Operating lease liabilities	Accrued liabilities	14,457	12,728
Non-current			
Operating lease liabilities	Operating lease liabilities, less current portion	140,035	151,226
Total operating lease liabilities		$154,492	$163,954

	December 31,	
Lease Term and Discount Rate	**2020**	**2019**
Weighted-average remaining lease term—operating leases (years)	8.7	9.7
Weighted-average discount rate—operating leases	5.3%	5.3%

Supplemental cash flow information related to operating leases was as follows (in thousands):

	Year Ended December 31,	
	2020	**2019**
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash outflows from operating leases	$21,678	$ 17,066
Non-cash operating activities:		
Operating lease assets obtained in exchange for new operating lease liabilities (1)	$ 1,763	$153,448

(1) Includes the balances recognized on January 1, 2019 on adoption of ASU No. 2016-02.

Maturities of operating lease liabilities were as follows (in thousands):

Year Ending December 31,	Operating leases
2021	$ 22,393
2022	22,353
2023	22,419
2024	24,277
2025	18,404
Thereafter	86,495
Total lease payments	$196,341
Less imputed interest	(41,849)
Present value of lease liabilities	$154,492

13. Commitments and Contingencies

Indemnification

In the normal course of business, we enter into agreements that contain a variety of representations and warranties and provide for general indemnification, including indemnification associated with product liability or infringement of intellectual property rights. Our exposure under these agreements is unknown because it involves future claims that may be made but have not yet been made against us. To date, we have not paid any claims or been required to defend any action related to these indemnification obligations.

We have agreed to indemnify our executive officers, directors and certain other employees for losses and costs incurred in connection with certain events or occurrences, including advancing money to cover certain costs, subject to certain limitations. The maximum potential amount of future payments we could be required to make under the indemnification obligations is unlimited; however, we maintain insurance policies that may limit our exposure and may enable us to recover a portion of any future amounts paid. Assuming the applicability of coverage, the willingness of the insurer to assume coverage, and subject to certain retention, loss limits and other policy provisions, we believe the fair value of these indemnification obligations is not significant. Accordingly, we did not recognize any liabilities relating to these obligations as of December 31, 2020 and December 31, 2019. No assurances can be given that the covering insurers will not attempt to dispute the validity, applicability, or amount of coverage without expensive litigation against these insurers, in which case we may incur substantial liabilities as a result of these indemnification obligations.

Other Commitments

As of December 31, 2020, we had $112.0 million of noncancelable purchase commitments due within one year, primarily related to agreements with third party manufacturers.

Legal Proceedings

From June to September 2020, a number of class action lawsuits were filed on behalf of purported direct and indirect Xyrem purchasers, alleging that the patent litigation settlement agreements we entered with Hikma and other ANDA filers violate state and federal antitrust and consumer protection laws, as follows:

On June 17, 2020, a class action lawsuit was filed in the United States District Court for the Northern District of Illinois by Blue Cross and Blue Shield Association, or BCBS, against Jazz Pharmaceuticals plc, Jazz Pharmaceuticals, Inc., and Jazz Pharmaceuticals Ireland Limited, or, collectively, the Company Defendants (hereinafter referred to as the BCBS Lawsuit). The BCBS Lawsuit also names Roxane Laboratories, Inc., Hikma Pharmaceuticals USA Inc., Eurohealth (USA), Inc., Hikma Pharmaceuticals plc, Amneal Pharmaceuticals LLC, Par Pharmaceuticals, Inc., Lupin Ltd., Lupin Pharmaceuticals Inc., and Lupin Inc., or, collectively, the BCBS Defendants.

On June 18 and June 23, 2020, respectively, two additional class action lawsuits were filed against the Company Defendants and the BCBS Defendants: one by the New York State Teamsters Council Health and Hospital Fund in the United States District Court for the Northern District of California, and another by the Government Employees Health Association Inc. in the United States District Court for the Northern District of Illinois (hereinafter referred to as the GEHA Lawsuit).

On June 18, 2020, a class action lawsuit was filed in the United States District Court for the Northern District of California by the City of Providence, Rhode Island, on behalf of itself and all others similarly situated, against Jazz Pharmaceuticals plc, and Roxane Laboratories, Inc., West-Ward Pharmaceuticals Corp., Hikma Labs Inc., Hikma Pharmaceuticals USA Inc., and Hikma Pharmaceuticals plc, or, collectively, the City of Providence Defendants.

On June 30, 2020, a class action lawsuit was filed in the United States District Court for the Northern District of Illinois by UFCW Local 1500 Welfare Fund on behalf of itself and all others similarly situated, against Jazz Pharmaceuticals Ireland Ltd., Jazz Pharmaceuticals, Inc., Roxane Laboratories, Inc., Hikma Pharmaceuticals plc, Eurohealth (USA), Inc. and West-Ward Pharmaceuticals Corp., or collectively the UFCW Defendants (hereinafter referred to as the UFCW Lawsuit).

On July 13, 2020, the plaintiffs in the BCBS Lawsuit and the GEHA Lawsuit dismissed their complaints in the United States District Court for the Northern District of Illinois, and refiled their respective lawsuits in the United States District Court for the Northern District of California. On July 14, 2020, the plaintiffs in the UFCW Lawsuit dismissed their complaint in the United States District Court for the Northern District of Illinois and on July 15, 2020, refiled their lawsuit in the United States District Court for the Northern District of California.

On July 31, 2020, a class action lawsuit was filed in the United States District Court for the Southern District of New York by the A.F. of L.-A.G.C Building Trades Welfare Plan on behalf of itself and all others similarly situated, against Jazz Pharmaceuticals plc (hereinafter referred to as the AFL Plan Lawsuit). The AFL Plan Lawsuit also names Roxane Laboratories Inc., West-Ward Pharmaceuticals Corp., Hikma Labs Inc., Hikma Pharmaceuticals plc, Amneal Pharmaceuticals LLC, Par Pharmaceuticals Inc., Lupin Ltd., Lupin Pharmaceuticals, Inc., and Lupin Inc.

On August 14, 2020, an additional class action lawsuit was filed in the United States District Court for the Southern District of New York by the Self-Insured Schools of California on behalf of itself and all others similarly situated, against the Company Defendants, as well as Hikma Pharmaceuticals plc, Eurohealth (USA) Inc., Hikma Pharmaceuticals USA, Inc., West-Ward Pharmaceuticals Corp., Roxane Laboratories, Inc., Amneal Pharmaceuticals LLC, Endo International, plc, Endo Pharmaceuticals LLC, Par Pharmaceutical, Inc., Lupin Ltd., Lupin Pharmaceuticals Inc., Lupin Inc., Sun Pharmaceutical Industries Ltd., Sun Pharmaceutical Holdings USA, Inc., Sun Pharmaceutical Industries, Inc., Ranbaxy Laboratories Ltd., Teva Pharmaceutical Industries Ltd., Watson Laboratories, Inc., Wockhardt Ltd., Morton Grove Pharmaceuticals, Inc., Wockhardt USA LLC, Mallinckrodt plc, and Mallinckrodt LLC (hereinafter the Self-Insured Schools Lawsuit).

On September 16, 2020, an additional class action lawsuit was filed in the United States District Court for the Northern District of California, by Ruth Hollman on behalf of herself and all others similarly situated, against the same defendants named in the Self-Insured Schools Lawsuit.

The plaintiffs in certain of these lawsuits are seeking to represent a class of direct purchasers of Xyrem, and the plaintiffs in the remaining lawsuits are seeking to represent a class of indirect purchasers of Xyrem. Each of the lawsuits generally alleges violations of U.S. federal and state antitrust, consumer protection, and unfair competition laws in connection with the Company Defendants' conduct related to Xyrem, including actions leading up to, and entering into, patent litigation settlement agreements with each of the other named defendants. Each of the lawsuits seeks monetary damages, exemplary damages, equitable relief against the alleged unlawful conduct, including disgorgement of profits and restitution, and injunctive relief. It is possible that additional lawsuits will be filed against the Company Defendants making similar or related allegations. If the plaintiffs were to be successful in their claims, they may be entitled to injunctive relief or we may be required to pay significant monetary damages, which could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

In December 2020, these cases were centralized and transferred to the United States District Court for the Northern District of California, where the multidistrict litigation will proceed for the purpose of discovery and pre-trial proceedings. In January 2021, the Court issued a Case Management Order that schedules this case for trial in February 2023.

From time to time we are involved in legal proceedings arising in the ordinary course of business. We believe there is no other litigation pending that could have, individually or in the aggregate, a material adverse effect on our results of operations or financial condition.

14. Shareholders' Equity

Share Repurchase Program

In November 2016, our board of directors authorized a share repurchase program and as of December 31, 2020 had authorized the repurchase of up to $1.5 billion, exclusive of any brokerage commissions. Under this program, which has no expiration date, we may repurchase ordinary shares from time to time on the open market. The timing and amount of repurchases will depend on a variety of factors, including the price of our ordinary shares, alternative investment opportunities, restrictions under the amended credit agreement, corporate and regulatory requirements and market conditions. The share repurchase program may be modified, suspended or discontinued at any time without prior notice. In 2020, we spent a total of $146.5 million to repurchase 1.2 million of our ordinary shares at an average total purchase price, including brokerage commissions, of $121.98 per share. In 2019, we spent a total of $301.5 million to repurchase 2.3 million of our ordinary shares at an average total purchase price, including brokerage commissions, of $133.97 per share. All ordinary shares repurchased were canceled. As of December 31, 2020, the remaining amount authorized under the share repurchase program was $431.2 million.

Authorized But Unissued Ordinary Shares

We had reserved the following shares of authorized but unissued ordinary shares (in thousands):

	December 31,	
	2020	2019
2011 Equity Incentive Plan	21,070	19,552
2007 Employee Stock Purchase Plan	2,600	1,883
Amended and Restated 2007 Non-Employee Directors Stock Award Plan	889	438
Amended and Restated Directors Deferred Compensation Plan	—	178
2007 Equity Incentive Plan	5	13
Total	24,564	22,064

Dividends

In 2020 and 2019, we did not declare or pay cash dividends on our common equity. Under Irish law, dividends may only be paid, and share repurchases and redemptions must generally be funded only out of, "distributable reserves." In addition, the terms of our credit agreement restrict our ability to make certain restricted payments, including dividends and other distributions by us in respect of our ordinary shares, subject to, among other exceptions, (1) a general exception for dividends and restricted payments up to $30 million in the aggregate and (2) an exception that allows for restricted payments, subject to a cap equal to the sum of (i) $100 million plus (ii) so long as our secured leverage ratio (as defined in our credit agreement) does not exceed 3:1 after giving pro forma effect to the restricted payment, a formula-based amount tied to our consolidated net income; provided that such cap applies only if our total leverage ratio (as defined in our credit agreement) exceeds 2:1 after giving pro forma effect to the restricted payment. Any future determination as to the payment of dividends will, subject to Irish legal requirements, be at the sole discretion of our board of directors and will depend on our consolidated financial condition, results of operations, capital requirements, compliance with the terms our credit agreement or other future borrowing arrangements, and other factors our board of directors deems relevant.

15. Comprehensive Income (Loss)

Comprehensive income (loss) includes net income and all changes in shareholders' equity during a period, except for those changes resulting from investments by shareholders or distributions to shareholders.

Accumulated Other Comprehensive Loss

The components of accumulated other comprehensive loss as of December 31, 2020 and 2019 were as follows (in thousands):

	Net Unrealized Loss From Hedging Activities	Foreign Currency Translation Adjustments	Total Accumulated Other Comprehensive Loss
Balance at December 31, 2019	$(1,325)	$(222,068)	$(223,393)
Other comprehensive income (loss) before reclassifications	(4,543)	90,183	85,640
Amounts reclassified from accumulated other comprehensive loss	3,401	—	3,401
Other comprehensive income (loss), net	(1,142)	90,183	89,041
Balance at December 31, 2020	$(2,467)	$(131,885)	$(134,352)

In 2020, other comprehensive income reflects foreign currency translation adjustments, primarily due to the strengthening of the euro against the U.S. dollar, and the net unrealized loss on derivatives that qualify as cash flow hedges.

16. Net Income per Ordinary Share

Basic net income per ordinary share is based on the weighted-average number of ordinary shares outstanding. Diluted net income per ordinary share is based on the weighted-average number of ordinary shares outstanding and potentially dilutive ordinary shares outstanding.

Basic and diluted net income per ordinary share were computed as follows (in thousands, except per share amounts):

	Year Ended December 31,		
	2020	2019	2018
Numerator:			
Net income	$238,616	$523,367	$447,098
Denominator:			
Weighted-average ordinary shares used in per share calculations—basic	55,712	56,749	59,976
Dilutive effect of employee equity incentive and purchase plans	805	801	1,245
Weighted-average ordinary shares used in per share calculations—diluted	56,517	57,550	61,221
Net income per ordinary share :			
Basic	$ 4.28	$ 9.22	$ 7.45
Diluted	$ 4.22	$ 9.09	$ 7.30

Potentially dilutive ordinary shares from our employee equity incentive and purchase plans and the Exchangeable Senior Notes are determined by applying the treasury stock method to the assumed exercise of share options, the assumed vesting of outstanding restricted stock units, or RSUs, the assumed issuance of ordinary shares under our employee stock purchase plan, or ESPP, and the assumed issuance of ordinary shares upon exchange of the Exchangeable Senior Notes. The potential issue of ordinary shares issuable upon exchange of the Exchangeable Senior Notes had no effect on diluted net income per ordinary share because the average price of our ordinary shares in 2020, 2019 and 2018 did not exceed the effective exchange prices per ordinary share of the Exchangeable Senior Notes.

The following table represents the weighted-average ordinary shares that were excluded from the computation of diluted net income per ordinary share for the years presented because including them would have an anti-dilutive effect (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Exchangeable Senior Notes	8,077	5,504	5,504
Options, RSUs and ESPP	4,780	5,000	3,113

17. Segment and Other Information

Our operating segment is reported in a manner consistent with the internal reporting provided to the chief operating decision maker, or CODM. Our CODM has been identified as our chief executive officer. We have determined that we operate in one business segment, which is the identification, development and commercialization of meaningful pharmaceutical products that address unmet medical needs.

The following table presents total long-lived assets by location (in thousands):

	December 31,	
	2020	2019
Ireland	$ 71,906	$ 77,237
United States	157,282	171,079
Italy	16,008	12,959
Other	11,908	9,616
Total long-lived assets (1)	$257,104	$270,891

(1) Long-lived assets consist of property, plant and equipment and operating lease assets.

18. Revenues

The following table presents a summary of total revenues (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Xyrem	$1,741,758	$1,642,525	$1,404,866
Xywav	15,264	—	—
Total Oxybate	1,757,022	1,642,525	1,404,866
Sunosi	28,333	3,714	—
Total Neuroscience	1,785,355	1,646,239	1,404,866
Defitelio/defibrotide	195,842	172,938	149,448
Erwinaze/Erwinase	147,136	177,465	174,739
Vyxeos	121,105	121,407	100,835
Zepzelca	90,380	—	—
Total Oncology	554,463	471,810	425,022
Other	6,842	17,552	39,585
Product sales, net	2,346,660	2,135,601	1,869,473
Royalties and contract revenues	16,907	26,160	21,449
Total revenues	$2,363,567	$2,161,761	$1,890,922

The following table presents a summary of total revenues attributed to geographic sources (in thousands):

	Year Ended December 31,		
	2020	2019	2018
United States	$2,144,541	$1,964,161	$1,727,576
Europe	175,208	150,201	125,911
All other	43,818	47,399	37,435
Total revenues	$2,363,567	$2,161,761	$1,890,922

The following table presents a summary of the percentage of total revenues from customers that represented more than 10% of our total revenues:

	Year Ended December 31,		
	2020	2019	2018
ESSDS	74%	76%	74%
McKesson	12%	14%	17%

Financing and payment

Our payment terms vary by the type and location of our customer but payment is generally required in a term ranging from 30 to 45 days.

Contract Liabilities—Deferred Revenue

The deferred revenue balance as of December 31, 2020 primarily related to deferred upfront fees received from Nippon Shinyaku Co., Ltd., or Nippon Shinyaku, in connection with two license, development and commercialization agreements granting Nippon Shinyaku exclusive rights to develop and commercialize each of Defitelio and Vyxeos in Japan. We recognized contract revenues of $4.7 million in 2020 relating to these upfront payments. The deferred revenue balances are being recognized over an average of four years representing the period we expect to perform our research and developments obligations under each agreement.

The following table presents a reconciliation of our beginning and ending balances in contract liabilities from contracts with customers for the year ended December 31, 2020 (in thousands):

	Contract Liabilities
Balance as of December 31, 2019	$ 9,581
Amount recognized within royalties and contract revenues	(4,720)
Balance as of December 31, 2020	$ 4,861

19. Share-Based Compensation

2011 Equity Incentive Plan

On January 18, 2012, the businesses of Jazz Pharmaceuticals, Inc. and Azur Pharma were combined in a merger transaction, or the Azur Merger. In connection with the Azur Merger, Jazz Pharmaceuticals, Inc.'s board of directors adopted the 2011 Equity Incentive Plan, or the 2011 Plan, in October 2011 and its stockholders approved the 2011 Plan at the special meeting of the stockholders held in December 2011 in connection with the Azur Merger. The 2011 Plan became effective immediately before the consummation of the Azur Merger and was assumed and adopted by us upon the consummation of the Azur Merger. The terms of the 2011 Plan provide for the grant of stock options, stock appreciation rights, RSUs, other stock awards, and performance awards that may be settled in cash, shares, or other property. All outstanding grants under the 2011 Plan were granted to employees and vest ratably over service periods of four years and expire no more than 10 years after the date of grant. As of December 31, 2020, a total of 29,538,645 of our ordinary shares had been authorized for issuance under the 2011 Plan. In addition, the share reserve under the 2011 Plan will automatically increase on January 1 of each year through January 1, 2022, by the least of (a) 4.5% of the total number of ordinary shares outstanding on December 31 of the preceding calendar year, (b) 5,000,000 shares, or (c) such lesser number of ordinary shares as determined by our board of directors. On January 1, 2021, the share reserve under the 2011 Plan automatically increased by 2,526,437 ordinary shares pursuant to this provision.

2007 Equity Incentive Plan

The 2007 Equity Incentive Plan, or the 2007 Plan, which was initially adopted by the Jazz Pharmaceuticals, Inc. board of directors and approved by the Jazz Pharmaceuticals, Inc. stockholders in connection with its initial public offering, was continued and assumed by us upon consummation of the Azur Merger. The 2007 Plan provided for the grant of stock options, RSUs, stock appreciation rights, performance stock awards and other forms of equity compensation to employees, including officers, non-employee directors and

consultants. Prior to the consummation of the Azur Merger, all of the grants under the 2007 Plan were granted to employees and vest ratably over service periods of three to five years and expire no more than 10 years after the date of grant. Effective as of the closing of the Azur Merger on January 18, 2012, the number of shares reserved for issuance under the 2007 Plan was set to 1,000,000 ordinary shares. The share reserve under the 2007 Plan will not automatically increase. Since the Azur Merger, all of the new grants under the 2007 Plan were granted to non-employee directors, vest ratably over service periods of one to three years and expire no more than 10 years after the date of grant. The 2007 Plan expired in April 2017, and accordingly, no new grants can be awarded under the 2007 Plan. As of December 31, 2020, the number of shares reserved represents issuable shares from options granted but not yet exercised under the 2007 Plan.

2007 Employee Stock Purchase Plan

In 2007, Jazz Pharmaceuticals, Inc.'s employees became eligible to participate in the ESPP. The ESPP was amended and restated by Jazz Pharmaceuticals, Inc.'s board of directors in October 2011 and approved by its stockholders in December 2011. The amended and restated ESPP became effective immediately prior to the effective time of the Azur Merger and was assumed by us upon the consummation of the Azur Merger. The amended and restated ESPP allows our eligible employee participants (including employees of any of a parent or subsidiary company if our board of directors designates such company as eligible to participate) to purchase our ordinary shares at a discount of 15% through payroll deductions. The ESPP consists of a fixed offering period of 24 months with four purchase periods within each offering period. The number of shares available for issuance under our ESPP during any six-month purchase period is 175,000 shares. As of December 31, 2020, a total of 5,263,137 of our ordinary shares had been authorized for issuance under the ESPP. The share reserve under the ESPP will automatically increase on January 1 of each year through January 1, 2022, by the least of (a) 1.5% of the total number of ordinary shares outstanding on December 31 of the preceding calendar year, (b) 1,000,000 shares, and (c) such lesser number of ordinary shares as determined by our board of directors or a duly-authorized committee thereof. On January 1, 2021, the share reserve under the ESPP automatically increased by 842,145 ordinary shares pursuant to this provision.

Amended and Restated 2007 Non-Employee Directors Stock Award Plan

The Amended and Restated 2007 Non-Employee Directors Stock Award Plan, or the 2007 Directors Award Plan, which was initially adopted by the Jazz Pharmaceuticals, Inc. board of directors and approved by the Jazz Pharmaceuticals, Inc. stockholders in connection with its initial public offering, was continued and assumed by us upon the consummation of the Azur Merger. Until October 2011, the 2007 Directors Award Plan provided for the automatic grant of stock options to purchase shares of Jazz Pharmaceuticals, Inc.'s common stock to its non-employee directors initially at the time any individual first became a non-employee director, which vest over three years, and then annually over their period of service on its board of directors, which vest over one year. On October 24, 2011, Jazz Pharmaceuticals, Inc.'s board of directors amended the 2007 Directors Award Plan to eliminate all future initial and annual automatic grants so that future automatic grants would not be made that would be subject to the excise tax imposed by Section 4985 of the Internal Revenue Code of 1986, as amended, or the Internal Revenue Code, in connection with the Azur Merger. Accordingly, all future stock option grants under the 2007 Directors Award Plan will be at the discretion of our board of directors. Since the Azur Merger, all of the new grants under the 2007 Directors Award Plan were granted to non-employee directors and vest ratably over service periods of one to three years and expire no more than 10 years after the date of grant. In addition, the 2007 Directors Award Plan provides the source of shares to fund distributions made prior to August 15, 2010 under the Directors Deferred Compensation Plan described below. In August 2016, our shareholders approved our proposal to expand the types of stock awards that may be granted to our non-employee directors under the 2007 Directors Award Plan and eliminate the final automatic share reserve increase under the 2007 Directors Award Plan that was scheduled to occur on January 1, 2017. In July 2020, our shareholders approved our proposal to increase the number of ordinary shares authorized for issuance under the 2007 Directors Award Plan by 500,000 shares. As of December 31, 2020, a total of 1,403,938 of our ordinary shares had been authorized for issuance under the 2007 Directors Award Plan.

Amended and Restated Directors Deferred Compensation Plan

In May 2007, the Jazz Pharmaceuticals, Inc. board of directors adopted the Directors Deferred Compensation Plan, or the Directors Deferred Plan, which was amended in December 2008 and was then amended and restated in August 2010, and which was continued and assumed by us upon consummation of the Azur Merger. The Directors Deferred Plan allows each non-employee director to elect to defer receipt of all or a portion of his or her annual retainer fees to a future date or dates. Amounts deferred under the Directors Deferred Plan are credited as shares of Jazz Pharmaceuticals, Inc.'s common stock (or our ordinary shares following the Azur Merger) to a phantom stock account, the number of which are based on the amount of the retainer fees deferred divided by the market value of Jazz

Pharmaceuticals, Inc.'s common stock (or our ordinary shares following the Azur Merger) on the first trading day of the first open window period following the date the retainer fees are deemed earned. On the 10th business day following the day of separation from the board of directors or the occurrence of a change in control, or as soon thereafter as practical once the non-employee director has provided the necessary information for electronic deposit of the deferred shares, each non-employee director will receive (or commence receiving, depending upon whether the director has elected to receive distributions from his or her phantom stock account in a lump sum or in installments over time) a distribution of his or her phantom stock account, in our ordinary shares (i) reserved under the 2007 Directors Option Plan prior to August 15, 2010 and (ii) from a new reserve of 200,000 shares set up under the Directors Deferred Plan on August 15, 2010. Since the consummation of the Azur Merger we have not permitted non-employee directors to defer any annual retainer fees under the Directors Deferred Plan. On October 31, 2019, our board of directors approved the termination of the Directors Deferred Plan, and all outstanding phantom stock was distributed to each applicable non-employee director on November 2, 2020. We recorded no expense in 2020, 2019 and 2018 related to retainer fees earned and deferred.

Share-Based Compensation

The table below shows, for all share option grants, the weighted-average assumptions used in the Black-Scholes option pricing model and the resulting weighted-average grant date fair value of share options granted in each of the past three years:

	Year Ended December 31,		
	2020	2019	2018
Grant date fair value	$ 34.68	$ 42.09	$ 47.17
Volatility	33%	32%	35%
Expected term (years)	4.6	4.5	4.5
Range of risk-free rates	0.2-1.6%	1.3-2.5%	2.2-3.0%
Expected dividend yield	— %	— %	— %

We rely on a blend of the historical and implied volatilities of our own ordinary shares to determine expected volatility for share option grants. In addition, we use a single volatility estimate for each share option grant. The weighted-average volatility is determined by calculating the weighted average of volatilities for all share options granted in a given year.

The expected term of share option grants represents the weighted-average period the awards are expected to remain outstanding and our estimates were based on historical exercise data. The risk-free interest rate assumption was based on zero coupon U.S. Treasury instruments whose term was consistent with the expected term of our share option grants. The expected dividend yield assumption was based on our history and expectation of dividend payouts.

Share-based compensation expense related to share options, RSUs and grants under our ESPP was as follows (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Selling, general and administrative	$ 84,384	$ 78,697	$ 76,770
Research and development	29,242	25,229	19,037
Cost of product sales	7,372	6,637	6,634
Total share-based compensation expense, pre-tax	120,998	110,563	102,441
Income tax benefit from share-based compensation expense	(12,838)	(15,712)	(17,230)
Total share-based compensation expense, net of tax	$108,160	$ 94,851	$ 85,211

We recognized income tax benefits related to share option exercises of $3.9 million, $5.1 million and $7.7 million in 2020, 2019 and 2018, respectively.

Share Options

The following table summarizes information as of December 31, 2020 and activity during 2020 related to our share option plans:

	Shares Subject to Outstanding Options (In thousands)	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value (In thousands)
Outstanding at January 1, 2020	5,834	$131.57		
Options granted	823	118.59		
Options exercised	(780)	111.47		
Options forfeited	(281)	137.73		
Options expired	(317)	159.41		
Outstanding at December 31, 2020	5,279	$130.51	6.3	$180,493
Vested and expected to vest at December 31, 2020	5,064	$130.57	6.2	$180,763
Exercisable at December 31, 2020	3,441	$130.32	5.2	$125,469

Aggregate intrinsic value shown in the table above is equal to the difference between the exercise price of the underlying share options and the fair value of our ordinary shares for share options that were in the money. The aggregate intrinsic value changes based on the fair market value of our ordinary shares. The aggregate intrinsic value of share options exercised was $26.4 million, $26.2 million and $43.4 million during 2020, 2019 and 2018, respectively. We issued new ordinary shares upon exercise of share options.

As of December 31, 2020, total compensation cost not yet recognized related to unvested share options was $57.7 million, which is expected to be recognized over a weighted-average period of 2.3 years.

As of December 31, 2020, total compensation cost not yet recognized related to grants under the ESPP was $6.3 million, which is expected to be recognized over a weighted-average period of 1.1 years.

Restricted Stock Units

In 2020, we granted RSUs covering an equal number of our ordinary shares to employees with a weighted-average grant date fair value of $117.23. The fair value of RSUs is determined on the date of grant based on the market price of our ordinary shares as of that date. The fair value of the RSUs is recognized as an expense ratably over the vesting period of four years. In 2020, 423,000 RSUs were released with 290,000 ordinary shares issued and 133,000 ordinary shares withheld for tax purposes. The total fair value of shares vested was $53.5 million, $52.0 million and $55.8 million during 2020, 2019 and 2018, respectively.

As of December 31, 2020, total compensation cost not yet recognized related to unvested RSUs was $143.7 million, which is expected to be recognized over a weighted-average period of 2.7 years.

The following table summarizes information as of December 31, 2020 and activity during 2020 related to our RSUs:

	Number of RSUs (in thousands)	Weighted-Average Grant-Date Fair Value	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value (In thousands)
Outstanding at January 1, 2020	1,181	$139.32		
RSUs granted	1,335	117.23		
RSUs released	(423)	137.50		
RSUs forfeited	(215)	130.21		
Outstanding at December 31, 2020	1,878	$125.07	1.5	$309,967

20. Employee Benefit Plans

We maintain a qualified 401(k) savings plan, in which all U.S. based employees are eligible to participate, provided they meet the requirements of the plan. We match certain employee contributions under the 401(k) savings plan and for the years ended December 31, 2020, 2019 and 2018 we recorded expense of $6.3 million, $5.0 million and $4.2 million, respectively, related to this plan.

We also operate a number of defined contribution retirement plans for certain non-U.S. based employees. Expenses related to contributions to such plans for the years ended December 31, 2020, 2019 and 2018 were $4.2 million, $3.2 million and $2.6 million, respectively.

21. Income Taxes

The components of income before the income tax provision (benefit) and equity in loss of investees were as follows (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Ireland	$(102,328)	$ (6,451)	$170,666
United States	372,910	317,728	294,621
Other	4,513	143,025	64,176
Total	$ 275,095	$454,302	$ 529,463

The following table sets forth the details of the income tax provision (benefit) (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Current			
Ireland	$ 19,437	$ 51,696	$ 33,431
United States	110,896	109,495	95,143
Other	40,121	2,265	40,403
Total current tax expense	170,454	163,456	168,977
Deferred, exclusive of other components below			
Ireland	(32,458)	(163,626)	(12,408)
United States	(29,117)	(41,297)	(41,337)
Other	(73,599)	(37,244)	(34,545)
Total deferred, exclusive of other components	(135,174)	(242,167)	(88,290)
Deferred, change in tax rates			
United States	(371)	203	(538)
Other	(1,392)	5,354	13
Total deferred, change in tax rates	(1,763)	5,557	(525)
Total deferred tax benefit	(136,937)	(236,610)	(88,815)
Total income tax provision (benefit)	$ 33,517	$ (73,154)	$ 80,162

Our income tax provision of $33.5 million and $80.2 million in 2020 and 2018, respectively, and our income tax benefit of $73.2 million in 2019 related to tax arising on income in Ireland, the U.S. and certain other foreign jurisdictions, certain unrecognized tax benefits and various expenses not deductible for income tax purposes. The income tax benefit in 2019 included a discrete tax benefit of $112.3 million resulting from an intra-entity intellectual property asset transfer. The tax benefit, which represents a deferred future benefit, was recorded as a deferred tax asset.

The effective tax rates for 2020, 2019 and 2018 were 12.2%, (16.1)% and 15.1%, respectively. The effective tax rate for 2020 was lower than the Irish statutory rate of 12.5% primarily due to the impact of originating tax credits and deductions on subsidiary equity, partially offset by income taxable at a rate higher than the Irish statutory rate, the disallowance of certain interest deductions and a provision for a proposed settlement reached with the French tax authorities. The effective tax rate for 2019 was lower than the Irish statutory rate of 12.5% primarily due to the impact of the intra-entity intellectual property asset transfer. The effective tax rate for 2018 was higher than the Irish statutory rate of 12.5%, primarily due to income taxable at a rate higher than the Irish statutory rate and unrecognized tax benefits, partially offset by the release of reserves related to unrecognized tax benefits from the expiration of a statute of limitation,

originating tax credits and the release of a valuation allowance held against certain foreign net operating losses, or NOLs. The increase in the effective tax rate in 2020 compared to 2019 was primarily due to the impact of the intra-entity intellectual property asset transfer. Excluding this effect, the increase in the effective tax rate for 2020 compared to 2019 was primarily due to the benefit recognized in 2019 from the application of the Italian patent box incentive regime 2015 through 2019 and the impact of the disallowance of certain interest deductions and a provision for a proposed settlement reached with the French tax authorities. The decrease in the effective tax rate in 2019 compared to 2018 was primarily due to the impact of the intra-entity intellectual property asset transfer. Excluding this effect, the decrease in the effective tax rate in 2019 compared to 2018 was primarily due to the benefit from the application of the Italian patent box incentive regime for 2015 through 2019.

The reconciliation between the statutory income tax rate applied to income before the income tax provision (benefit) and equity in loss of investees and our effective income tax rate was as follows:

	Year Ended December 31,		
	2020	2019	2018
Statutory income tax rate	12.5%	12.5%	12.5%
Research and other tax credits	(11.8)%	(8.8)%	(3.0)%
Deduction on subsidiary equity	(9.4)%	(5.2)%	(0.5)%
Foreign income tax rate differential	6.0%	8.7%	11.9%
Change in unrecognized tax benefits	5.9%	0.1%	1.1%
Non-deductible compensation	3.1%	1.8%	1.2%
Financing costs	2.6%	(1.7)%	(4.3)%
Change in valuation allowance	2.2%	3.3%	3.2%
Tax deficiencies/(Excess tax benefits) from share-based compensation	1.9%	0.1%	(0.4)%
Change in estimates	(1.3)%	0.3%	(1.1)%
Change in tax rate	(0.7)%	1.5%	(0.1)%
Investment in subsidiaries	0.1%	— %	(4.8)%
Intra-entity transfer of intellectual property assets	— %	(24.7)%	— %
Patent box incentive benefit	— %	(7.0)%	— %
Non-deductible acquired IPR&D	— %	2.5%	— %
Non-deductible loss contingency	— %	— %	0.8%
Impact of U.S. Tax Act	— %	— %	(1.4)%
Other	1.1%	0.5%	— %
Effective income tax rate	12.2%	(16.1)%	15.1%

Significant components of our net deferred tax assets/(liabilities) were as follows (in thousands):

	December 31,	
	2020	2019
Deferred tax assets:		
Operating loss carryforwards	$ 89,216	$ 91,295
Tax credit carryforwards	258,296	225,681
Intangible assets	153,562	157,549
Share-based compensation	26,090	26,091
Accruals	62,561	49,063
Indirect effects of unrecognized tax benefits	48,743	39,432
Lease liabilities	31,787	33,847
Other	82,490	48,631
Total deferred tax assets	752,745	671,589
Valuation allowance	(77,342)	(66,307)
Deferred tax assets, net of valuation allowance	675,403	605,282
Deferred tax liabilities:		
Intangible assets	(448,310)	(536,085)
Operating lease assets	(26,316)	(28,442)
Other	(76,258)	(43,447)
Total deferred tax liabilities	(550,884)	(607,974)
Net of deferred tax assets and liabilities	$ 124,519	$ (2,692)

The net change in valuation allowance was an increase of $11.0 million, $5.1 million and $9.1 million in 2020, 2019 and 2018, respectively.

The following table summarizes the presentation of deferred tax assets and liabilities (in thousands):

	December 31,	
	2020	2019
Deferred tax assets	$254,916	$221,403
Deferred tax liabilities	(130,397)	(224,095)
Net deferred tax assets/(liabilities)	$ 124,519	$ (2,692)

As of December 31, 2020, we had NOL carryforwards and tax credit carryforwards for U.S. federal income tax purposes of approximately $144.7 million and $205.4 million, respectively, available to reduce future income subject to income taxes. These NOL carryforwards are inclusive of $122.3 million from the Celator Acquisition in 2016 and $18.7 million from the Cavion acquisition in 2019. The U.S. federal NOL carryforwards will expire, if not utilized, in the tax years 2021 to 2036, and the U.S. federal tax credits will expire, if not utilized, in the tax years 2021 to 2040. In addition, we had approximately $58.9 million of NOL carryforwards and $7.1 million of tax credit carryforwards as of December 31, 2020 available to reduce future taxable income for U.S. state income tax purposes. The U.S. state NOL carryforwards will expire, if not utilized, in the tax years 2021 to 2040. As of December 31, 2020, there were NOL and other carryforwards for income tax purposes of approximately $271.5 million, $49.2 million, $40.1 million and $37.7 million available to reduce future income subject to income taxes in Ireland, Luxembourg, the United Kingdom and Malta, respectively. The NOLs and other carryforwards generated in Ireland, Luxembourg, the United Kingdom and Malta have no expiration date. We also had foreign tax credit carryforwards in Ireland, as of December 31, 2020, of $45.6 million, which may only be utilized against certain sources of income. The foreign tax credit carryforwards have no expiration date.

Utilization of certain of our NOL and tax credit carryforwards in the U.S. is subject to an annual limitation due to the ownership change limitations provided by Sections 382 and 383 of the Internal Revenue Code and similar state provisions. Such an annual limitation may result in the expiration of certain NOLs and tax credits before future utilization. In addition, as a result of the Azur Merger, until 2022 we are

subject to certain limitations under the Internal Revenue Code in relation to the utilization of U.S. NOLs to offset U.S. taxable income resulting from certain transactions.

Valuation allowances require an assessment of both positive and negative evidence when determining whether it is more likely than not that deferred tax assets are recoverable. Such assessment is required on a jurisdiction-by-jurisdiction basis. Our valuation allowance was $77.3 million and $66.3 million as of December 31, 2020 and 2019, respectively, for certain Irish, U.S. (federal and state) and foreign deferred tax assets which we maintain until sufficient positive evidence exists to support reversal. During 2020, as part of the overall change in valuation allowance, we recognized a net income tax provision of $6.2 million relating primarily to the creation of a valuation allowance against certain deferred tax assets primarily associated with temporary differences related to foreign subsidiaries. During 2019, as part of the overall change in valuation allowance, we recognized a net income tax provision of $6.3 million relating primarily to the creation of a valuation allowance of $15.7 million against certain deferred tax assets primarily associated with foreign tax credits and temporary differences related to foreign subsidiaries, partially offset by the net release of valuation allowances against certain deferred tax assets primarily associated with NOLs. During 2018, as part of the overall change in valuation allowance, we recognized a net income tax provision of $11.2 million relating primarily to the creation of a valuation allowance of $25.7 million against certain deferred tax assets primarily associated with temporary differences related to foreign subsidiaries, partially offset by the net release of valuation allowances against certain deferred tax assets primarily associated with NOLs and foreign tax credits. The $11.2 million net income tax provision included a benefit of $10.9 million relating to a change in judgment leading to the reversal of a valuation allowance against certain deferred tax assets, primarily related to NOLs in the United Kingdom and a benefit of $5.9 million relating to the reversal of a valuation allowance upon completing our analysis of our ability to utilize certain foreign tax credits generated by the one-time transition tax in the U.S. Management determined that valuation allowances were no longer needed on these deferred tax assets based on an assessment of the relative impact of all positive and negative evidence that existed at December 31, 2018, including an evaluation of cumulative income in recent years, future sources of taxable income exclusive of reversing temporary differences, and significant risks and uncertainties related to our business. We periodically evaluate the likelihood of the realization of deferred tax assets and will adjust such amounts in light of changing facts and circumstances including, but not limited to, future projections of taxable income, tax legislation, rulings by relevant tax authorities, the progress of tax audits and the regulatory approval of products currently under development. Realization of the deferred tax assets is dependent on future taxable income.

Temporary differences related to foreign subsidiaries that are considered indefinitely reinvested totaled approximately $1.9 billion and $1.6 billion as of December 31, 2020 and 2019, respectively. In the event of the distribution of those earnings in the form of dividends, a sale of the subsidiaries, or certain other transactions, we may be liable for income taxes, subject to an adjustment, if any, for foreign tax credits and foreign withholding taxes payable to certain foreign tax authorities. As of December 31, 2020, it was not practicable to determine the amount of the unrecognized deferred tax liability related to these earnings.

We only recognize the financial statement effects of a tax position when it is more likely than not, based on the technical merits, that the position will be sustained upon examination. As a result, we have recorded an unrecognized tax benefit for certain tax benefits which we judge may not be sustained upon examination.

A reconciliation of our gross unrecognized tax benefits follows (in thousands):

	December 31,		
	2020	2019	2018
Balance at the beginning of the year	$124,319	$118,213	$106,162
Increases related to current year tax positions	27,908	27,552	22,649
Increases related to prior year tax positions	19,712	761	7,584
Decreases related to prior year tax positions	(213)	(91)	—
Lapse of the applicable statute of limitations	(25,169)	(22,116)	(18,182)
Balance at the end of the year	$146,557	$124,319	$118,213

The unrecognized tax benefits were included in income taxes payable, other non-current liabilities, deferred tax liabilities, net, and deferred tax assets, net, in our consolidated balance sheets. Interest related to our unrecognized tax benefits is recorded in the income tax provision in our consolidated statements of income. As of December 31, 2020 and 2019, our accrued interest and penalties related to unrecognized tax benefits was $11.3 million and $7.4 million, respectively. Interest and penalties related to unrecognized tax benefits

recognized in the statements of income were not significant. Included in the balance of unrecognized tax benefits were potential benefits of $93.0 million and $78.8 million at December 31, 2020 and 2019, respectively, that, if recognized, would affect the effective tax rate on income.

We file income tax returns in multiple tax jurisdictions, the most significant of which are Ireland and the U.S. (both at the federal level and in various state jurisdictions). For Ireland we are no longer subject to income tax audits by taxing authorities for the years prior to 2016. The U.S. jurisdictions generally have statute of limitations three to four years from the later of the return due date or the date when the return was filed. However, in the U.S. (at the federal level and in most states), carryforwards that were generated in 2016 and earlier may still be adjusted upon examination by the tax authorities. Certain of our subsidiaries are currently under examination by the French tax authorities for the years ended December 31, 2012, 2013, 2015, 2016 and 2017. These examinations may lead to ordinary course adjustments or proposed adjustments to our taxes. In the period from December 2015 through to December 2019, we received proposed tax assessment notices for each of the years under examination relating to certain transfer pricing adjustments. The notices propose additional French tax of approximately $45.9 million for 2012 and 2013 and approximately $13.1 million for 2015, 2016 and 2017 including interest and penalties through the respective dates of the proposed assessments, translated at the foreign exchange rate at December 31, 2020. Due to the subjective nature of the transfer pricing issues involved, during 2020, the Company reached an agreement in principle to settle the audits for all open years with the French tax authorities. The settlement would require the Company to pay incremental taxes, interest and penalties of $19.6 million, translated at the foreign exchange rate as of December 31, 2020. The income tax expense in 2020 includes the impact of the settlement, which is expected to be finalized and paid in 2021. Certain of our Italian subsidiaries are currently under examination by the Italian tax authorities for the year ended December 31, 2017. Certain of our Luxembourg subsidiaries are currently under examination by the Luxembourg tax authorities for the years ended December 31, 2017 and 2018.

22. Subsequent Events

GW Transaction Agreement

On February 3, 2021, we announced that we have entered into a definitive transaction agreement, or the GW Transaction Agreement, with GW Pharmaceuticals plc, or GW, under which a wholly-owned subsidiary of ours, Jazz Pharmaceuticals UK Holdings Limited, or Acquisition Sub, agreed to acquire GW. The GW Transaction Agreement provides, among other things, that subject to the satisfaction or waiver of the conditions set forth in the GW Transaction Agreement, Acquisition Sub will acquire the entire issued share capital of GW pursuant to a scheme of arrangement under Part 26 of the United Kingdom Companies Act 2006, or Scheme of Arrangement, which we refer to as the GW Acquisition.

Under the GW Transaction Agreement, at the effective time of the Scheme of Arrangement, all GW ordinary shares issued and outstanding will be transferred to Acquisition Sub, and the holders of GW ordinary shares will have the right to receive, for each such share, (a) 16.66^{2}/_{3}$ in cash and (b) an amount of our ordinary shares determined based on the exchange ratio, which exchange ratio will be determined as follows:

- If the volume-weighted weighted average sales price of our ordinary shares, as determined in accordance with the GW Transaction Agreement, or the Defined VWAP, is greater than $139.72 but less than $170.76, the exchange ratio will be an amount equal to the quotient obtained by dividing (x) 1.66^{2}/_{3}$ by (y) the Defined VWAP;
- If the Defined VWAP is equal to or less than $139.72, the exchange ratio will be 0.011929; or
- If the Defined VWAP is an amount equal to or greater than $170.76, the exchange ratio will be 0.009760.

Because each American Depositary Share in GW, or GW ADSs, represents a beneficial interest in 12 GW ordinary shares, holders of GW ADSs will be entitled to receive 12 times the foregoing cash and share amounts, or (1) $200.00 in cash and (2) $20.00 in the form of our ordinary shares with the actual number of our ordinary shares being determined based on the exchange ratio set out above. The total consideration to be paid by us for the entire issued share capital of GW is approximately $7.2 billion.

The respective obligations of GW and us to consummate the GW Acquisition are subject to the satisfaction or waiver of a number of customary conditions, including the approval by GW's shareholders of the Scheme of Arrangement, obtaining certain regulatory approvals, including expiration of the applicable waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, and obtaining sanction of the Scheme of Arrangement by the High Court of Justice of England and Wales. The GW Acquisition is not subject to approval by our shareholders, nor is the GW Acquisition subject to a financing contingency. The GW Acquisition is expected to close in the second

quarter of 2021, subject to the satisfaction or waiver of the conditions set forth in the GW Transaction Agreement. The GW Transaction Agreement contains customary representations and warranties given by GW and us, covenants regarding the conduct of GW's business prior to the consummation of the GW Acquisition, termination rights and other customary provisions.

Financing Commitment

On February 3, 2021, in connection with the execution of the GW Transaction Agreement, we entered into a commitment letter with BofA Securities, Inc., Bank of America, N.A. and JPMorgan Chase Bank, N.A. pursuant to which the commitment parties have committed to provide us with a senior secured revolving credit facility in an aggregate principal amount of up to $500.0 million, a senior secured term loan B facility in an aggregate principal amount of up to $3.15 billion and a senior secured bridge loan facility in an aggregate principal amount of up to $2.2 billion to, among other things, finance our obligations in respect of the GW Acquisition. The effectiveness of such credit facilities is subject to the occurrence of customary closing conditions, including the consummation of the GW Acquisition.

23. Quarterly Financial Data (Unaudited)

The following interim financial information presents our 2020 and 2019 results of operations on a quarterly basis (in thousands, except per share amounts):

	2020			
	March 31	June 30	September 30	December 31
Revenues	$ 534,726	$562,436	$600,888	$665,517
Gross margin (1)	501,548	530,195	554,854	611,146
Net income (loss)	(157,833)	114,801	148,234	133,414
Net income (loss) per ordinary share, basic	(2.82)	2.07	2.67	2.39
Net income (loss) per ordinary share, diluted	(2.82)	2.06	2.64	2.33

	2019			
	March 31	June 30	September 30	December 31
Revenues	$508,186	$534,133	$537,702	$581,740
Gross margin (1)	469,825	495,747	500,921	541,178
Net income	85,201	261,898	102,276	73,992
Net income per ordinary share, basic	1.49	4.62	1.80	1.31
Net income per ordinary share, diluted	1.47	4.56	1.78	1.29

(1) Gross margin is computed by subtracting cost of product sales (excluding amortization of acquired developed technologies) from product sales, net.

The interim financial information above includes the following items:

- Acquired IPR&D expense of $202.3 million and $36.0 million in the first and fourth quarters of 2020, respectively, and $56.0 million and $48.3 million in the first and third quarters of 2019, respectively;
- Impairment charge of $136.1 million in the first quarter of 2020;
- A one-time tax benefit of $112.3 million resulting from an intra-entity intellectual property asset transfer in the second quarter of 2019; and
- Amortization costs of $111.1 million in the fourth quarter of 2019 in respect of the PRV.

Schedule II

Valuation and Qualifying Accounts
(In thousands)

		Balance at beginning of period	Additions charged to costs and expenses	Other Additions	Deductions	Balance at end of period
For the year ended December 31, 2020						
Allowance for doubtful accounts	(1)	$ 50	$ 5	$ —	$ (5)	$ 50
Allowance for sales discounts	(1)	113	1,432	—	(1,401)	144
Allowance for chargebacks	(1)	1,133	45,550	—	(41,390)	5,293
Deferred tax asset valuation allowance	(2)(3)(4)	66,307	6,576	4,961	(502)	77,342
For the year ended December 31, 2019						
Allowance for doubtful accounts	(1)	$ 50	$ 9	$ —	$ (9)	$ 50
Allowance for sales discounts	(1)	76	782	—	(745)	113
Allowance for chargebacks	(1)	408	41,864	—	(41,139)	1,133
Deferred tax asset valuation allowance	(2)(3)(4)	61,237	20,086	357	(15,373)	66,307
For the year ended December 31, 2018						
Allowance for doubtful accounts	(1)	$ 396	$ 20	$ —	$ (366)	$ 50
Allowance for sales discounts	(1)	103	811	—	(838)	76
Allowance for chargebacks	(1)	3,663	41,387	—	(44,642)	408
Deferred tax asset valuation allowance	(2)(3)	52,144	35,500	—	(26,407)	61,237

(1) Shown as a reduction of accounts receivable. Charges related to sales discounts and chargebacks are reflected as a reduction of revenue.

(2) Additions to the deferred tax asset valuation allowance charged to costs and expenses relate to movements on certain Irish, U.S. (federal and state) and other foreign deferred tax assets where we continue to maintain a valuation allowance until sufficient positive evidence exists to support reversal.

(3) Deductions from the deferred tax asset valuation allowance include movements relating to utilization of NOLs and tax credit carryforwards, release in valuation allowance and other movements including adjustments following finalization of tax returns.

(4) Other additions to the deferred tax asset valuation allowance relate to currency translation adjustments recorded directly in other comprehensive income and, in 2019, additions resulting from the Cavion asset acquisition.

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EXECUTIVE COMMITTEE

Bruce C. Cozadd
Chairman and Chief Executive Officer

George Eliades, Ph.D.
Senior Vice President, Corporate Development and Chief Transformation Officer

Renée Galá
Executive Vice President and Chief Financial Officer

Robert Iannone, M.D., M.S.C.E.
Executive Vice President, Research and Development and Chief Medical Officer

Finbar Larkin, Ph.D.
Senior Vice President, Technical Operations

Heidi Manna
Senior Vice President and Chief Human Resources Officer

John Miller
Senior Vice President, Global Product Strategy and Program Management

Neena M. Patil
Chief Legal Officer and Senior Vice President, Legal and Corporate Affairs

Samantha Pearce
Senior Vice President, Europe and International

Kim Sablich
Executive Vice President and General Manager, North America

Daniel N. Swisher, Jr.
President

Chris Tovey
Executive Vice President, Chief Operating Officer and Managing Director, Europe & International

COMPANY SECRETARY

Aislinn Doody

ORDINARY SHARES

Jazz Pharmaceuticals plc ordinary shares are traded on the Nasdaq Global Select Market under the symbol "JAZZ"

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ANNUAL GENERAL MEETING

The annual general meeting of shareholders will be held at 3:00 p.m. IST on July 29, 2021 at the Company's corporate headquarters located at Fifth Floor, Waterloo Exchange, Waterloo Road, Dublin 4, Ireland.

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

KPMG, Dublin, Ireland

BOARD OF DIRECTORS

Paul L. Berns
Managing Director, ARCH and Executive Chair, RBNC

Jennifer E. Cook
Director, BridgeBio Pharma, Inc. and Denali Therapeutics Inc.

Bruce C. Cozadd
Chairman and Chief Executive Officer, Jazz Pharmaceuticals plc

Patrick G. Enright
Managing Director, Longitude Capital

Peter Gray
Chairman, Teckro, Inc. and Director, Abzena

Heather Ann McSharry
Director, International Airlines Group, S.A.

Seamus Mulligan
Director, Jazz Pharmaceuticals plc

Kenneth W. O'Keefe
Managing Director, Beecken Petty O'Keefe & Company

Anne O'Riordan
Group Director of Digital, Jardine Matheson Limited

Norbert G. Riedel, Ph.D.
Chief Executive Officer, Aptinyx Inc.

Elmar Schnee
Chairman, Calliditas Therapeutics AB , Genkyotex SA and Santhera Pharmaceuticals Holding AG

Mark D. Smith, M.D.
Professor, University of California, San Francisco and Director, Teladoc Health, Inc. and Phreesia, Inc.

Catherine A. Sohn, Pharm.D.
Chairperson, BioEclipse Therapeutics, Inc. and Director, Axcella Health Inc., Landec Corporation and Rubius Therapeutics

Rick E Winningham
Lead Independent Director, Jazz Pharmaceuticals plc and Chairman and Chief Executive Officer, Theravance Biopharma, Inc.

REGISTRAR AND TRANSFER AGENT

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FOR MORE INFORMATION

Information about Jazz Pharmaceuticals plc can be found on the Internet at www.jazzpharmaceuticals.com. Inquiries regarding Jazz Pharmaceuticals plc and its activities may be directed to the Investor Relations Department at investorinfo@jazzpharmaceuticals.com or +353 1 634 7892 (Ireland) or +1 650 496 2800 (U.S.). Communications concerning shares and transfer requirements, lost certificates or changes of address should be directed to the Transfer Agent.

CAUTION CONCERNING FORWARD-LOOKING STATEMENTS

This communication contains forward-looking statements, including, but not limited to, statements related to Jazz Pharmaceuticals' belief in its ability to invest in the business and build additional value for shareholders; the company's future long-term growth drivers including expectations regarding planned product launches and clinical and regulatory milestones; the company's plans to proactively manage operating expenses and prioritize investments in its most important revenue drivers; the company's expectation regarding COVID-19 impacts to the business, including on its clinical development timelines; and other statements that are not historical facts. These forward-looking statements are based on the company's current plans, objectives, estimates, expectations and intentions and inherently involve significant risks and uncertainties. Actual results and the timing of events could differ materially from those anticipated in such forward-looking statements as a result of these risks and uncertainties, which include, without limitation, risks and uncertainties associated with: failure to realize the anticipated benefits and synergies from our acquisition of GW Pharmaceuticals; the indebtedness of the combined company following the consummation of our acquisition of GW Pharmaceuticals and the adverse effect such indebtedness may have on the combined company's flexibility and increased borrowing costs; the scale, duration and evolving effects of the COVID-19 pandemic and resulting global economic, financial and healthcare system disruptions and impacts to the company's business operations and financial condition; maintaining or increasing sales of and revenue from our oxybate products; effectively commercializing the company's other products and product candidates; the time-consuming and uncertain regulatory approval process, including the risk that the company's current and planned regulatory submissions may not be submitted, accepted or approved by applicable regulatory authorities in a timely manner or at all; the costly and time-consuming pharmaceutical product development and the uncertainty of clinical success, including risks related to failure or delays in initiating or completing clinical trials; protecting and enhancing the company's intellectual property rights; delays or problems in the supply or manufacture of the company's products and product candidates; complying with applicable U.S. and non-U.S. regulatory requirements; government investigations and other actions; obtaining and maintaining adequate coverage and reimbursement for the company's products; identifying and acquiring, in-licensing or developing additional products or product candidates, financing these transactions and successfully integrating acquired businesses; the ability to achieve expected future financial performance and results and the uncertainty of future tax and other provisions and estimates; and other risks and uncertainties affecting the company, including those described from time to time under the caption "Risk Factors" and elsewhere in Jazz Pharmaceuticals plc's U.S. Securities and Exchange Commission filings and reports (Commission File No. 001-33500), including the company's Annual Report on Form 10-K for the year ended December 31, 2020 and future filings and reports by the company. Other risks and uncertainties of which the company is not currently aware may also affect the company's forward-looking statements and may cause actual results and timing of events to differ materially from those anticipated. The forward-looking statements herein are made only as of the date hereof or as of the dates indicated in the forward-looking statements, even if they are subsequently made available by the company on its website or otherwise. Except as required by law, the company undertakes no obligation to update or supplement any forward-looking statements to reflect actual results, new information, future events, changes in its expectations or other circumstances that exist after the date as of which the forward-looking statements were made.

HARRY
Sunosi® Patient

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