Seagen®

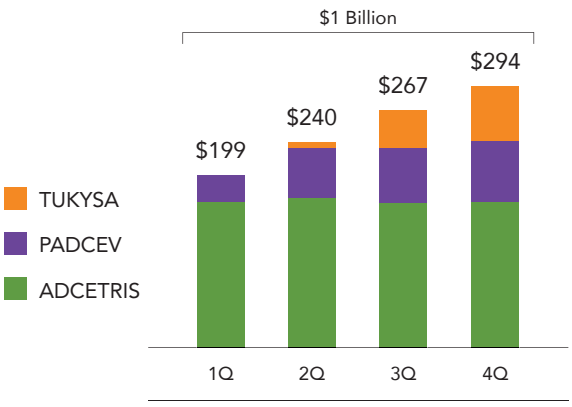
2020 Annual Report

Seagen at a Glance

Recent progress in diversifying our product portfolio, expanding globally, and advancing groundbreaking research and development is the result of our ongoing commitment to improving the lives of people with cancer.

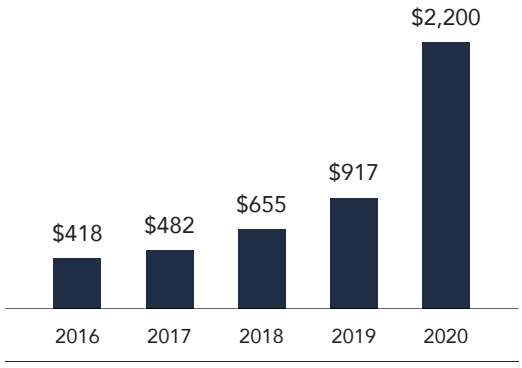
2020 Net Product Sales

Dollars in Millions



Total Revenue Growth

Dollars in Millions



11 Locations

United States
Canada
Europe

>2,100 Employees

60% contributing to research and development activities

On the Cover

Julie, a wife and mother of two young adults, was busy with family, friends and a full-time career when she was diagnosed with HER2+ metastatic breast cancer. After exhausting the treatment options available, Julie decided to enroll in a TUKYSA clinical trial and responded well to the treatment regimen. Today, Julie is enjoying retirement working on knitting projects, spending time with friends and family, and planning her next vacation.

3 Approved Cancer Medicines

ADCETRIS® brentuximab vedotin | for injection

CD30-directed antibody-drug conjugate (ADC)

Commercially available in 75 countries for certain types of CD30-expressing lymphomas

Multiple ongoing clinical trials in Hodgkin lymphoma and other CD30-expressing cancers

IN COLLABORATION WITH Takeda

PADCEV® enfortumab vedotin-ejfv Injection for IV infusion 20 mg & 30 mg vials

Nectin-4 directed ADC

Available in the U.S. to treat certain types of metastatic urothelial cancer (mUC)

Clinical trials ongoing in first-line mUC and earlier stages of bladder cancer as well as in a range of other solid tumors

IN COLLABORATION WITH astellas Leading Light for Life

TUKYSA® tucatinib 50 mg | 150 mg tablets

HER2-directed oral tyrosine kinase inhibitor

Available in the U.S., EU and other countries for certain HER2+ metastatic breast cancers

Broad development program in earlier stages of breast cancer as well as other HER2+ cancers, including colorectal cancer

IN COLLABORATION WITH MERCK

9 Pipeline Program Candidates

Late-Stage Programs

Antibody-Drug Conjugates

Tisotumab vedotin
(co-development with Genmab; submitted for approval in U.S.)

Ladiratuzumab vedotin
(co-development with Merck)

Early-Stage Programs

Antibody-Drug Conjugates

SGN-CD228A

SGN-B6A

SGN-STNV

Sugar-Engineered Antibodies

SEA-BCMA

SEA-CD40

SEA-CD70

SEA-TGT

Community Involvement

Light the Night

Light The Night is a nationwide fund-raiser for the Leukemia & Lymphoma Society in support of programs for people impacted by blood cancers. Our team has a long history of participating in this event, both in Seattle and across the United States.

Obliteride

Seagen is a proud sponsor of Obliteride, an annual cycling event that fuels innovative cancer research at Fred Hutchinson Cancer Research Center. During this weekend event, the Seagen team joins other scientists, survivors, and advocates to cycle, run, and walk up to 100 miles to fund life-saving science.

Walk to End Bladder Cancer

In 2020, Seagen participated in the Bladder Cancer Advocacy Network's virtual Walk to End Bladder Cancer. Our team walked on treadmills, outside, or inside the house in demonstration of our commitment to people impacted by bladder cancer.

Dear Shareholders:

2020 was a pivotal year for Seagen. We expanded our global footprint and operations beyond the U.S. and Canada, now with presence across Europe. We executed successful U.S. launches of PADCEV for metastatic urothelial cancer (mUC) and TUKYSA for HER2-positive metastatic breast cancer. Seagen has grown to become a multi-product oncology company with a diversified portfolio of medicines to meet the needs of a wider range of cancer patients. We reported record product sales in our territories of $1 billion in 2020 driven by rapid PADCEV and TUKYSA uptake, as well as strong ADCETRIS sales, and total revenues of $2.2 billion, including royalties and collaborations. The growth of our business has increased our ability to advance cutting-edge science and to bring important medicines to more cancer patients around the world.

ADCETRIS® brentuximab vedotin | for injection

During the past year, we delivered multiple important business, regulatory and development milestones. ADCETRIS, the first in a new generation of antibody-drug conjugates (ADCs) that is being developed and commercialized in collaboration with Takeda has been used in the treatment of nearly 83,000 patients globally. In December 2020, at the American Society of Hematology annual meeting, we presented important long-term follow-up results from the ADCETRIS phase 3 ECHELON-1 and ECHELON-2 clinical trials in front-line Hodgkin and peripheral T- cell lymphomas, respectively, demonstrating robust and durable remissions after five years of follow up. This five-year time-point is a clinically meaningful and important milestone in a cancer patient's journey and the data have been well received by oncologists. Also, in 2020, our partner Takeda gained additional ex-U.S. ADCETRIS approvals, including in China. As we mark ten years since the first approval of ADCETRIS, now the foundation of care in the treatment of multiple CD30-expressing hematologic malignancies, we remain committed to maximizing its reach through a robust clinical development program.

PADCEV® enfortumab vedotin-ejfv Injection for IV infusion 20 mg & 30 mg vials

PADCEV is a novel ADC that we are developing and commercializing in collaboration with Astellas. Following its FDA accelerated approval in December 2019, PADCEV showed rapid adoption among advanced mUC patients. We are conducting a broad development program with PADCEV and in 2020 we announced positive topline results from two PADCEV studies. The phase 3 EV-301 trial in patients with previously treated mUC demonstrated that PADCEV significantly improved overall survival and progression-free survival versus standard-of-care chemotherapy. We also reported strong data from the second cohort of the phase 2 EV-201 pivotal trial in mUC patients previously treated with an immune checkpoint inhibitor but who were ineligible to receive cisplatin-based chemotherapy. Further data from both trials were presented at the 2021 ASCO Genitourinary Cancers Symposium and EV-301 results were published simultaneously in the *New England Journal of Medicine*. These datasets were included in two supplemental Biologics License Applications to the FDA in February 2021 which seek

to convert PADCEV's accelerated approval to regular approval and expand the current label. In early 2021, we and Astellas submitted these data to regulatory authorities in the EU and other ex-U.S. countries to support marketing authorizations for PADCEV. In earlier stages of mUC, our goal is to redefine first-line treatment for patients globally, with a focus on the combination of PADCEV and the immune checkpoint inhibitor KEYTRUDA. In 2020, we received Breakthrough Therapy Designation for PADCEV in combination with KEYTRUDA in first-line mUC for patients who are ineligible to receive cisplatin chemotherapy. We are currently enrolling two trials designed to support approval in this setting, one for accelerated approval in the U.S. for cisplatin-ineligible patients and the other for all patients, regardless of cisplatin eligibility, and to support global approvals. We also made significant headway in exploring earlier stages of bladder cancer. In collaboration with Astellas and Merck & Co., Inc., PADCEV is being tested in two randomized phase 3 trials in muscle-invasive bladder cancer patients and we plan to initiate an exploratory study of PADCEV in non-muscle invasive bladder cancer.

TUKYSA is a best-in-class tyrosine kinase inhibitor for HER2-positive metastatic breast cancer patients with and without brain metastases. In 2020, TUKYSA was approved in the U.S., as well as Australia, Canada, Singapore and Switzerland under the FDA's Project Orbis program. Strong clinical trial data and favorable placement in multiple treatment guidelines drove rapid adoption in the U.S. in its approved indication. In early 2021, the European Commission approved TUKYSA in the EU and the UK Medicines and Healthcare products Regulatory Agency (MHRA) granted marketing authorization in Great Britain. Given our recent European expansion, we are positioned to execute upcoming TUKYSA launches and collaborate with individual countries to maximize its availability and patient reach. In addition, we have a broad clinical development program designed to maximize the potential of TUKYSA, including trials evaluating it in earlier lines of therapy in HER2-positive breast cancer and in other HER2-positive and HER2-mutant tumors, including colorectal and gastric cancers.

MERCK COLLABORATIONS

Late-stage candidate ladiratuzumab vedotin (LV) and TUKYSA

We announced two important strategic oncology collaborations in 2020 with Merck, for which we received $725 million in upfront payments. Under one of the global collaboration agreements, we granted Merck an exclusive license to commercialize TUKYSA in Asia, the Middle East, Latin America and other regions outside of the U.S., Canada and Europe. This deal will accelerate the commercialization of TUKYSA, making it available as rapidly and broadly as possible for patients in need. Under the second collaboration agreement, we and Merck will jointly develop and commercialize our late-stage candidate ladiratuzumab vedotin (LV). The collaboration is intended to accelerate the development of LV and focuses on evaluating this active ADC as monotherapy and in combination with KEYTRUDA in LIV-1-expressing solid tumors. As part of the LV agreement, Merck also made a $1 billion equity investment in Seagen.

> **...we are focused on three strategic priorities to drive continued innovation and growth.**

As we look ahead to 2021, we are focused on three strategic priorities to drive continued innovation and growth.

- First, we are working to maximize the global potential of our three approved medicines through robust clinical development programs and exceptional commercial execution. This includes advancing registrational trials across ADCETRIS, PADCEV and TUKYSA and completing enrollment in additional PADCEV and TUKYSA trials that support our label-expansion strategies.

- Second, we are advancing late-stage programs toward securing approvals for new products. This includes tisotumab vedotin (TV), which was the subject of our February 2021 BLA submission to the FDA for patients with recurrent or metastatic cervical cancer, positioning it to be our fourth commercial product. TV is being investigated in earlier lines of metastatic cervical cancer in combination with KEYTRUDA. LV is being studied in breast cancer with the potential to initiate multiple pivotal trials.

- Third, we are expanding our already strong and innovative early-stage pipeline, through continued leadership in the ADC space, internal R&D investment and potential corporate development opportunities. In 2021, we expect to report data from multiple phase 1 programs that utilize our innovative technologies and submit INDs for additional candidates.

Focusing on these strategic priorities will ensure our organization is aligned and empowered to deliver substantial value to our key stakeholders, notably shareholders, our employees, oncologists and especially cancer patients.

I am proud of the remarkable progress we have made as a company over the past year, despite the challenges of a global pandemic. We have a multi-product commercial portfolio, additional potential approvals on the horizon, a deep and diverse pipeline, powerful partnerships, a broad geographic footprint and substantial financial strength. This solid foundation sets the stage for Seagen's next phase of innovation and execution. Our company has never been better positioned for growth, and I am confident in our ability to continue delivering upon our mission of making a meaningful difference in the lives of people with cancer.

Clay B. Siegall, Ph.D.
President, Chief Executive Officer and Chairman of the Board

Seagen®

2020

Form 10-K

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: 0-32405

SEAGEN INC.

(Exact name of registrant as specified in its charter)

Delaware	**91-1874389**
(State or other Jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

21823 30th Drive SE, Bothell, WA 98021
(Address of principal executive offices, including zip code)
Registrant's telephone number, including area code: **(425) 527-4000**

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

Title of class	**Trading Symbol(s)**	**Name of each exchange on which registered**
Common Stock, par value $0.001	SGEN	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 an 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	☐	Emerging growth company	☐
Non-accelerated filer	☐	Smaller reporting 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 Exchange Act). Yes ☐ No ☒

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant was approximately $21.1 billion as of the last business day of the registrant's most recently completed second fiscal quarter, based upon the closing sale price on The Nasdaq Global Select Market reported for such date. Excludes an aggregate of 49,451,384 shares of the registrant's Common Stock held as of such date by officers, directors and stockholders that the registrant has concluded are or were affiliates of the registrant. Exclusion of such shares should not be construed to indicate that the holder of any such shares 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.

There were 181,164,446 shares of the registrant's Common Stock issued and outstanding as of February 9, 2021.

DOCUMENTS INCORPORATED BY REFERENCE

Part III incorporates information by reference from the registrant's definitive proxy statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A, not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K, in connection with the registrant's 2021 Annual Meeting of Stockholders.

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SPECIAL 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 and Section 21E of the Securities Exchange Act of 1934. Forward-looking statements are based on our management's beliefs and assumptions and on information currently available to our management. All statements other than statements of historical facts are "forward-looking statements" for purposes of these provisions, including those relating to future events or our future financial performance and financial guidance. In some cases, you can identify forward-looking statements by terminology such as "may," "might," "will," "should," "could", "expect," "plan," "anticipate," "project," "believe," "estimate," "predict," "potential," "intend" or "continue," the negative of terms like these or other comparable terminology, and other words or terms of similar meaning in connection with any discussion of future operating or financial performance. These statements are only predictions. All forward-looking statements included in this Annual Report on Form 10-K are based on information available to us on the date hereof, and we assume no obligation to update any such forward-looking statements, except as required by law. Any or all of our forward-looking statements in this document may turn out to be incorrect. Actual events or results may differ materially. Our forward-looking statements can be affected by inaccurate assumptions we might make or by known or unknown risks, uncertainties and other factors. We discuss many of these risks, uncertainties and other factors in this Annual Report on Form 10-K in greater detail under the heading "Item 1A—Risk Factors." We caution investors that our business and financial performance are subject to substantial risks and uncertainties.

RISK FACTOR SUMMARY

Investing in our securities involves a high degree of risk. Below is a summary of material factors that make an investment in our securities speculative or risky. Importantly, this summary does not address all of the risks that we face. Additional discussion of the risks summarized in this risk factor summary, as well as other risks that we face, can be found under the heading "Item 1A—Risk Factors", below.

- Our success depends on our ability to effectively commercialize our products. If we and our collaborators are unable to effectively commercialize our products and to expand their utilization, our ability to generate significant revenue and our prospects for profitability will be adversely affected.
- Our success also depends on our ability to obtain regulatory approvals for our product candidates and for our current products in additional territories, as well as our ability to expand the labeled indications of use for our current products, and, if the requisite approvals are obtained, our ability to successfully launch and commercialize our products in their approved indications. Our inability to do so could have a material adverse effect on our business, financial condition, results of operations and growth prospects.
- Reports of adverse events or safety concerns involving our products or product candidates could delay or prevent us from obtaining or maintaining regulatory approvals or could negatively impact sales of our products or the prospects for our product candidates.
- Clinical trials are expensive and time consuming, may take longer than we expect or may not be completed at all, and their outcome is uncertain.
- The successful commercialization of our products and our product candidates will depend on a variety of factors, including the extent to which governmental authorities and health insurers establish adequate coverage and reimbursement levels and pricing policies, and the acceptance of our products by the medical community and patients.
- Our product candidates are in various stages of development, and it is possible that none of our product candidates will ever become commercial products.
- Any failures or setbacks in our antibody-drug conjugate, or ADC, development program or our other platform technologies could negatively affect our business and financial position.
- We face intense competition and rapid technological change, which may result in others discovering, developing or commercializing competing products before or more successfully than we do.

- Even if we and our collaborators obtain regulatory approvals to market our current and any future approved products, we and our collaborators will remain subject to extensive ongoing regulatory obligations and oversight, including post-approval requirements, that could result in significant additional expense and could negatively impact our and our collaborators' ability to commercialize our current and any future approved products.
- Healthcare law and policy changes may have a material adverse effect on us.
- We are subject to various state and federal and foreign laws and regulations, including healthcare, data protection and privacy laws and regulations, that may impact our business and could subject us to significant fines and penalties or other negative consequences.
- We depend on collaborative relationships with other companies to assist in the development and commercialization of our products and some of our product candidates and for the development and commercialization of other product candidates utilizing or incorporating our technologies. If we are not able to locate suitable collaborators or if our collaborators do not perform as expected, this may negatively affect our ability to commercialize our products, develop and commercialize our product candidates and/or generate revenues through technology licensing, or may otherwise negatively affect our business.
- We currently rely on third-party manufacturers and other third parties for production of our drug products and our dependence on these manufacturers may impair the continued development and commercialization of our products and product candidates.
- If we are unable to enforce our intellectual property rights or if we fail to sustain and further procure additional intellectual property rights, we may not be able to successfully commercialize our products or any future products and competitors may be able to develop competing therapies.
- We have been and may in the future be subject to litigation, which could result in substantial damages and may divert management's time and attention from our business.
- We and our collaborators rely on license agreements for certain aspects of our products and product candidates and technologies such as our ADC technology. Failure to maintain these license agreements or to secure any required new licenses could prevent us from continuing to develop and commercialize our products and product candidates.
- If we are unable to manage our growth, our business, financial condition, results of operations and prospects may be adversely affected.
- Risks associated with our expanding operations in foreign countries could materially adversely affect our business.
- Our operating results are difficult to predict and may fluctuate. If our operating results are below the expectations of securities analysts or investors, the trading price of our stock could decline.
- We have a history of net losses. We expect to continue to incur net losses and may not achieve future sustained profitability for some time, if at all.
- Our stock price is volatile and our shares may suffer a decline in value.
- Our existing stockholders have significant control of our management and affairs.

PART I

Item 1. Business

Overview

Seagen is a biotechnology company that develops and commercializes targeted therapies to treat cancer. We are commercializing ADCETRIS®, or brentuximab vedotin, for the treatment of certain CD30-expressing lymphomas, PADCEV®, or enfortumab vedotin-ejfv, for the treatment of certain metastatic urothelial cancers, and TUKYSA®, or tucatinib, for treatment of certain metastatic HER2-positive breast cancers. We are also advancing a pipeline of novel therapies for solid tumors and blood-related cancers designed to address unmet medical needs and improve treatment outcomes for patients. Many of our programs, including ADCETRIS and PADCEV, are based on our antibody-drug conjugate, or ADC, technology that utilizes the targeting ability of monoclonal antibodies to deliver cell-killing agents directly to cancer cells. In October 2020, we changed our corporate name from Seattle Genetics, Inc. to Seagen Inc., reflecting the global expansion of our operations.

Our strategy is to become a leading global oncology company developing and marketing targeted therapies for cancer. Key elements of our strategy are to maximize the potential of our approved medicines through successful commercial execution, expand the number of patients eligible to receive our medicines by securing approvals of our commercial products in other countries, conduct clinical trials designed to support additional labels for our products, and develop new first-in-class or best-in-class medicines. We seek to commercialize our products either on our own as we expand our operations globally or through commercial partnerships. We are deploying our internal research, clinical, development, regulatory and manufacturing expertise to advance and expand our deep pipeline of drug candidates aimed at gaining new product approvals. We conduct internal research directed at identifying novel antigen targets, monoclonal antibodies and other targeting molecules, creating new antibody engineering techniques and developing new classes of stable linkers and cell-killing agents in support of our continued ADC innovation. In addition, we supplement these internal efforts by acquiring or in-licensing products, product candidates and technologies from biotechnology and pharmaceutical companies and academic institutions.

COVID-19

We are continuing to closely monitor the impact of the evolving effects of the COVID-19 pandemic on our business and are taking proactive efforts designed to protect the health and safety of our workforce, patients and healthcare professionals, and to continue our business operations and advance our goal of bringing important medicines to patients as rapidly as possible.

We continue to maintain measures designed to protect the health and safety of our workforce and to reduce the transmission of COVID-19, including a mandatory work-from-home policy for employees who can perform their jobs offsite. We are continuing essential research, manufacturing, and laboratory activities on site and maintain a number of additional precautionary measures designed to protect these onsite employees, such as temperature checks, screening protocols, masks, social distancing, contact tracing and making testing available. In the conduct of our business activities, we are also taking actions designed to protect the safety of patients and healthcare professionals. Among other actions, our field-based personnel have paused most in-person customer interactions in healthcare settings and have been using primarily electronic communications to support healthcare professionals and patients. They are engaging in limited in-person interactions where state and local laws and regulations allow, the institution or office is accepting in-person interactions and our field-based personnel are comfortable engaging in-person with healthcare providers. See also "—Human Capital Resources—COVID-19" below. We believe that the measures we have implemented are appropriate and are helping to reduce transmission of COVID-19, and we will continue to monitor conditions and related guidance from governmental authorities and adjust our activities as appropriate. For information regarding the impacts of the evolving effects of the COVID-19 pandemic on our ability and the ability of our collaborators to effectively market, sell and distribute our products and to develop our products and product candidates, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Overview—Outlook" in Part II Item 7 of this Annual Report on Form 10-K.

Our Medicines

Our approved medicines include the following:

Product*	Therapeutic Area	U.S. Approved Indication
ADCETRIS® brentuximab vedotin | for injection	**Hodgkin Lymphoma**	Previously untreated Stage III/IV classical Hodgkin lymphoma, or cHL, in combination with doxorubicin, vinblastine and dacarbazine cHL at high risk of relapse or progression as post-autologous hematopoietic stem cell transplantation, or auto-HSCT, consolidation cHL after failure of auto-HSCT or after failure of at least two prior multi-agent chemotherapy regimens in patients who are not auto-HSCT candidates
	T-cell Lymphoma	Previously untreated sALCL or other CD30-expressing PTCL, including angioimmunoblastic T-cell lymphoma and PTCL not otherwise specified, in combination with cyclophosphamide, doxorubicin and prednisone sALCL after failure of at least one prior multi-agent chemotherapy regimen Primary cutaneous anaplastic large cell lymphoma, or pcALCL, or CD30-expressing mycosis fungoides who have received prior systemic therapy
PADCEV® enfortumab vedotin-ejfv Injection for IV infusion 20 mg & 30 mg vials	**Urothelial Cancer**	Locally advanced or metastatic urothelial cancer who have previously received a PD-1 or PD-L1 inhibitor and a platinum-containing chemotherapy before (neoadjuvant) or after (adjuvant) surgery in a locally advanced or metastatic setting.
TUKYSA® tucatinib 50 mg | 150 mg tablets	**Breast Cancer**	In combination with trastuzumab and capecitabine for the treatment of adult patients with advanced unresectable or metastatic HER2-positive breast cancer, including patients with brain metastases, who have received one or more prior anti-HER2-based regimens in the metastatic setting.

**ADCETRIS, PADCEV and TUKYSA are only indicated for adults.*

ADCETRIS®

ADCETRIS is an ADC targeting CD30, which is a protein located on the surface of cells and highly expressed in Hodgkin lymphoma, certain T-cell lymphomas as well as other cancers. ADCETRIS first received approval in an initial indication by the U.S. Food and Drug Administration, or FDA, in 2011 and has since been approved in a total of six indications to treat Hodgkin lymphoma and T-cell lymphomas in various settings including as frontline therapy.

Prior to the approval of ADCETRIS, the standard of care frontline therapy for patients with Hodgkin lymphoma and PTCL has seen limited improvement over the last few decades. Additionally, chemotherapy regimens have substantial associated toxicities and a significant number of lymphoma patients relapse and require additional treatments including other chemotherapy regimens and autologous stem cell transplant, or ASCT. Beyond our current labeled indications, we are evaluating ADCETRIS in several clinical trials to potentially broaden its use.

ADCETRIS is commercially available in more than 75 countries worldwide. We commercialize ADCETRIS in the U.S. and its territories and in Canada, and we collaborate with Takeda Pharmaceutical Company Limited, or Takeda, to develop and commercialize ADCETRIS on a global basis. Under this collaboration, Takeda has commercial rights in the rest of the world and pays us a royalty. Takeda has received regulatory approvals for ADCETRIS as monotherapy or in combination with agents in various settings for the treatment of patients with Hodgkin lymphoma or CD30-positive T-cell lymphomas in Europe and many countries throughout the rest of the world and is pursuing additional regulatory approvals.

PADCEV®

PADCEV is an ADC targeting Nectin-4, a protein expressed on the surface of cells and highly expressed in bladder cancer as well as other cancers. PADCEV was granted accelerated approval by the FDA in December 2019 for the treatment of adult patients with locally advanced or metastatic urothelial cancer who have previously received a PD-1 or PD-L1 inhibitor and a platinum-containing chemotherapy before (neoadjuvant) or after (adjuvant) surgery in the locally advanced or metastatic setting. FDA approval of PADCEV was supported by data from a single-arm pivotal phase 2 clinical trial called EV-201. Continued approval may be contingent upon verification and description of clinical benefit in a required confirmatory trial. As discussed further below, Astellas and we plan to submit a supplemental BLA to the FDA based on the global phase 3 clinical trial called EV-301 as the confirmatory trial.

In the metastatic setting, several PD-1 and PD-L1 inhibitors have been approved for urothelial cancer in the past several years and are improving outcomes for some patients, yet the vast majority of patients do not benefit, or relapse, and require additional treatment options. Prior to the approval of PADCEV in the U.S. there were no approved agents in the post-platinum-based therapy and post-checkpoint inhibitor setting, representing an unmet medical need. We are conducting clinical trials in frontline metastatic disease, muscle invasive bladder cancer and in a range of other solid tumors. In addition, we are working on a development strategy in non-muscle invasive bladder cancer.

PADCEV, is being co-developed and jointly commercialized with Astellas Pharma, Inc., or Astellas. In the U.S., we and Astellas are jointly promoting PADCEV. In the U.S., we record net sales of PADCEV and are responsible for all distribution activities. We and Astellas each bear the costs of our own sales organizations in the U.S., equally share certain other costs associated with commercializing PADCEV in the U.S., and equally share in any profits realized in the U.S.

TUKYSA®

TUKYSA is an oral, small molecule tyrosine kinase inhibitor, or TKI, that is highly selective for HER2, a growth factor receptor overexpressed in many cancers. HER2 mediates cell growth, differentiation and survival. Tumors that over-express HER2 are generally more aggressive and historically have been associated with poor overall survival, compared with HER2-negative cancers. In April 2020, TUKYSA received approval from the FDA in combination with trastuzumab and capecitabine for the treatment of adult patients with advanced unresectable or metastatic HER2-positive breast cancer, including patients with brain metastases, who have received one or more prior anti-HER2-based regimens in the metastatic setting. FDA approval of TUKYSA was supported by data from the HER2CLIMB trial. We are conducting a broad clinical development program of TUKYSA including ongoing and planned trials in earlier lines of breast cancer and in other HER2-positive cancers.

The FDA reviewed the application for approval under the Oncology Center of Excellence's, or OCE's, Real Time Oncology Review, or RTOR, pilot program. We also participated in the Project Orbis initiative of the FDA OCE which provides a framework for concurrent submission and review of oncology products among international partners. Under this program we have received approval from the following countries participating in the FDA's Project Orbis initiative: U.S., Canada, Australia, Singapore, and Switzerland. In February 2021, the European Commission, or EC, granted marketing authorization for TUKYSA in combination with trastuzumab and capecitabine for the treatment of adult patients with HER2-positive locally advanced or metastatic breast cancer who have received at least two prior anti-HER2 treatment regimens. This approval is valid in all countries of the European Union as well as Norway, Liechtenstein, Iceland and Northern Ireland. We have also submitted a regulatory application to the U.K. Medicines and Healthcare Product Regulatory Authority, or MHRA.

We are commercializing TUKYSA in the U.S. and Canada and also expect to commercialize TUKYSA in Europe. In September 2020, we entered into a license and collaboration agreement with a subsidiary of Merck, or the TUKYSA Agreement, that granted exclusive rights to Merck & Co., Inc., or Merck, to commercialize TUKYSA in Asia, the Middle East and Latin America and other regions outside of the U.S., Canada and Europe. The collaboration is intended to accelerate global availability of TUKYSA.

Our Clinical Development Pipeline

The following table summarizes the key clinical trials of ADCETRIS, PADCEV, TUKYSA and our lead product candidates:

Product or Product Candidate	Tumor Type	Setting	Trial Name / Description	Development Status
ADCETRIS (brentuximab vedotin)	Diffuse large B-cell lymphoma	R/R	In combination with lenalidomide and rituximab	Phase 3*
	Hodgkin lymphoma	1L	In combination with nivolumab, doxorubicin and dacarbazine	Phase 2
	Hodgkin lymphoma or Peripheral T-cell lymphoma, unfit for chemotherapy	1L	Monotherapy	Phase 2
	Hodgkin lymphoma (pediatrics)	R/R	CheckMate 744: In combination with nivolumab[1]	Phase 2
	Peripheral T-cell lymphoma (< 10% CD30 expression)	1L	In combination with cyclophosphamide, doxorubicin and prednisone	Phase 2
	Metastatic solid tumors	R/R	In combination with pembrolizumab | post PD-1 inhibitor treatment	Phase 2
PADCEV (enfortumab vedotin-ejfv)[2]	Locally advanced or metastatic urothelial cancer	1L	EV-302: In combination with pembrolizumab vs chemotherapy alone	Phase 3*
		2L/3L	EV-301: Monotherapy | post PD(L)-1 and post platinum chemotherapy	Phase 3*
		2L	EV-201 Cohort 2: Monotherapy | post PD(L)-1, platinum naive and cisplatin ineligible	Phase 2*
		1L/2L	EV-103: Monotherapy and in combination with pembrolizumab	Phase 2*
	Muscle invasive bladder cancer	1L	EV-303/KEYNOTE-905: In combination with pembrolizumab | cisplatin-ineligible	Phase 3*
		1L	EV-304/KEYNOTE-B15: In combination with pembrolizumab | cisplatin-eligible	Phase 3*
		1L	EV-103: Monotherapy and in combination with pembrolizumab	Phase 2
	Locally advanced or metastatic solid tumors	R/R	EV-202: Monotherapy	Phase 2
TUKYSA (tucatinib)	HER2+ metastatic breast cancer	1L/2L	HER2CLIMB-02: In combination with T-DM1	Phase 3*
	High risk HER2+ breast cancer	ADJ	COMPASSHER2 RD[5]: In combination with T-DM1	Phase 3*
	HER2+ metastatic breast cancer		HER2CLIMB-04: In combination with trastuzumab deruxtecan	Phase 2
	HER2+ metastatic colorectal cancer	R/R	MOUNTAINEER: In combination with trastuzumab	Phase 2*
	HER2+ gastroesophogeal cancer	2L	MOUNTAINEER-02: In combination trastuzumab, ramucirumab and chemotherapy	Phase 2*
	Metastatic solid tumors HER2 alterations		In combination trastuzumab with or without fulvestrant	Phase 2
	HER2+ gastric cancer	1L	In combination with trastuzumab and oxaliplatin	Phase 1
Tisotumab Vedotin[3]	Recurrent/metastatic cervical cancer	2L/3L	innovaTV 301: Monotherapy	Phase 3*
		2L/3L	innovaTV 204: Monotherapy	Phase 2*
		1L/2L	innovaTV 205: In combination with other ant-cancer agents	Phase 1/2
	Locally advanced solid tumors		innovaTV 206: (Japan only)	Phase 2
	Metastatic solid tumors	R/R	innovaTV 207: Monotherapy	Phase 2
	Platinum-resistant ovarian cancer	2L	innovaTV 208: Monotherapy	Phase 2
Ladiratuzumab Vedotin[4]	Metastatic triple-negative breast cancer	1L	In combination with pembrolizumab	Phase 2
	Metastatic solid tumors	R/R	Monotherapy	Phase 2
	Metastatic breast cancer (HR+/HER2-)	R/R	In combination with trastuzumab	Phase 2

1L: front/first-line 2L:second-line R/R:relapsed or refractory ADJ = adjuvant
* indicates registrational intent

1. Clinical collaboration with Bristol-Myers Squibb
2. 50:50 co-development and commercial collaboration with Astellas
3. 50:50 co-development and commercial collaboration with Genmab
4. 50:50 co-development and commercial collaboration with Merck
5. Conducted in collaboration with Alliance for Clinical Trials in Oncology and National Cancer Institute (NCI)

Clinical Development Status

ADCETRIS (brentuximab vedotin)

Beyond our current labeled indications, we are evaluating ADCETRIS as monotherapy and in combination with other agents in ongoing trials which include several potential registration-enabling trials. In addition to our corporate-sponsored trials there are numerous investigator-sponsored trials of ADCETRIS in the United States. The investigator-sponsored trials include the use of ADCETRIS in a number of malignant hematologic indications and in solid tumors.

As previously reported, the phase 3 ECHELON-1 trial achieved its primary endpoint with the combination of ADCETRIS plus AVD (Adriamycin [doxorubicin], vinblastine and dacarbazine) resulting in a statistically significant improvement in modified PFS compared to the control arm of ABVD, which includes bleomycin, in patients with Stage III and IV frontline classical Hodgkin lymphoma. Also previously reported, the phase 3 ECHELON-2 trial met its primary endpoint with the combination of ADCETRIS plus CHP (cyclophosphamide, Adriamycin [doxorubicin], vincristine, prednisone) resulting in a statistically significant improvement in PFS versus the control arm of CHOP in patients with CD30-expressing PTCL. In December 2020, five-year updates from the ECHELON-1 and ECHELON-2 clinical trials were presented at the 62nd American Society of Hematology annual meeting in December 2020. The five-year update of the ECHELON-1 clinical trial shows treatment with ADCETRIS in combination with AVD chemotherapy results in superior long-term outcomes when compared to ABVD. Additionally, the ECHELON-2 clinical trial continues to demonstrate significant durable improvement in progression-free survival and overall survival of ADCETRIS plus CHP when compared to CHOP.

PADCEV (enfortumab vedotin-ejfv)

In collaboration with Astellas we are conducting or planning to conduct clinical trials across the spectrum of bladder cancer including ongoing trials in frontline metastatic urothelial cancer and muscle invasive bladder cancer. We are planning a development strategy for non-muscle invasive bladder cancer as well. In addition, we are conducting a trial in a range of other solid tumors.

In September 2020, we announced that the global phase 3 clinical trial called EV-301, which compared PADCEV to chemotherapy in adult patients with locally advanced or metastatic urothelial cancer who were previously treated with platinum-based chemotherapy and a PD-1/L1 inhibitor, met its primary endpoint of overall survival, or OS, compared to chemotherapy. For patients in the PADCEV arm of the trial, rash, fatigue, and decreased neutrophil count were the most frequent Grade 3 or greater treatment-related adverse events occurring in more than 5 percent of patients. Astellas and we plan to submit a supplemental BLA based on the EV-301 results to the FDA as the confirmatory trial following PADCEV's accelerated approval in December 2019. EV-301 is also intended to support global regulatory submissions.

In October 2020, we announced positive topline results from the second cohort of patients in the pivotal phase 2 EV-201 trial. The cohort is evaluating PADCEV for patients with locally advanced or metastatic urothelial cancer who have been previously treated with a PD-1/L1 inhibitor and have not received a platinum-containing chemotherapy and are ineligible for cisplatin. We plan to submit a supplemental BLA to the FDA based on the results which is intended to support an indication in this setting.

PADCEV is also being investigated in frontline metastatic urothelial cancer and earlier stages of bladder cancer. We and Astellas are conducting a phase 1b/2 clinical trial, called EV-103, that is a multi-cohort, open-label trial of PADCEV alone or in combination with the anti-PD-1 therapy pembrolizumab. The trial is evaluating safety, tolerability and activity in locally advanced and first- and second-line metastatic urothelial cancer, and was expanded to include muscle invasive bladder cancer, or MIBC. In February 2020, updated results from the trial in patients with previously untreated locally advanced or metastatic urothelial cancer who were ineligible for treatment with cisplatin-based chemotherapy were presented at the 2020 Genitourinary Cancers Symposium.

In February 2020, based on the positive initial results of the EV-103 trial, the FDA granted Breakthrough Therapy designation for PADCEV in combination with pembrolizumab for the treatment of patients with unresectable locally advanced or metastatic urothelial cancer who are unable to receive cisplatin-based chemotherapy in the first-line setting. In April 2020, we announced that based on discussions with the FDA, data from the randomized cohort K in the EV-103 trial, along with other data from the EV-103 trial, could potentially support registration under the FDA's accelerated approval pathway. The primary outcome measures are objective response rate and duration of response. We expect to complete enrollment in cohort K by the end of 2021.

In addition to the potential accelerated approval pathway based on the EV-103 trial, we are conducting a global, registrational phase 3 trial, called EV-302, in frontline metastatic urothelial cancer in collaboration with Astellas and a subsidiary of Merck & Co., Inc., or Merck. We, Astellas and Merck are jointly funding EV-302 and the trial is being led by us. EV-302 is an open-label, randomized phase 3 clinical trial evaluating the combination of PADCEV and pembrolizumab versus chemotherapy alone in patients with previously untreated locally advanced or metastatic urothelial cancer. The trial includes metastatic urothelial cancer patients who are either eligible or ineligible for cisplatin-based chemotherapy. The trial has dual primary endpoints of progression-free survival and overall survival and is intended to support global regulatory submissions and potentially serve as a confirmatory trial if accelerated approval is granted based on EV-103.

In April 2020, we and Astellas entered into an agreement with Merck to evaluate PADCEV in MIBC. Merck has amended its ongoing phase 3 KEYNOTE-905/EV-303 registrational trial in cisplatin-ineligible patients with MIBC to include an arm evaluating PADCEV in combination with pembrolizumab. In October 2020, we and Astellas entered into an agreement with Merck to evaluate PADCEV in combination with pembrolizumab in a phase 3 trial, called KEYNOTE-B15/EV-304, to be conducted by Merck in cisplatin-eligible patients with MIBC which was initiated in the first quarter of 2021.

In January 2020, we and Astellas also initiated a phase 2 clinical trial, called EV-202, to evaluate PADCEV monotherapy in solid tumors that have high-levels of Nectin-4 expression, including non-small cell lung, head and neck, gastric/esophageal and breast cancers. In March 2020, the first patient was dosed in the trial.

Since the launch of PADCEV we have continued to monitor product safety in clinical trials and in the post marketing setting. Nectin-4, which PADCEV targets, is expressed in the skin, and rash is a common adverse event associated with PADCEV use, but is generally mild and reversible. Severe rashes, however, do occur and are described in the current U.S. prescribing information. Severe cutaneous adverse reactions including fatal cases of Stevens Johnson Syndrome and toxic epidermal necrolysis have occurred in patients treated with PADCEV in the post marketing setting and during clinical trials. We have communicated the occurrence of these rare events via a letter together with updated recommendations to health care providers who may treat patients with urothelial cancer. We are working with the FDA regarding updates to the U.S. prescribing information to reflect these events. The overall benefit-risk balance remains favorable for the use of PADCEV in its approved indication.

TUKYSA (tucatinib)

We are conducting a broad clinical development program of TUKYSA including ongoing and planned trials in earlier lines of breast cancer and in other HER2-positive cancers.

In October 2019, we initiated a phase 3 randomized trial, called HER2CLIMB-02, evaluating TUKYSA versus placebo, each in combination with T-DM1, for patients with unresectable locally advanced or metastatic HER2-positive breast cancer, including those with brain metastases, who have had prior treatment with a taxane and trastuzumab.

We are supporting a U.S. cooperative group that is conducting a phase 3 randomized trial, called CompassHER2 RD, which is evaluating TUKYSA in combination with T-DM1 in the adjuvant setting for patients with high-risk, HER2-positive breast cancer.

We are also conducting a phase 2 trial, called HER2CLIMB-04, evaluating TUKYSA in combination with trastuzumab deruxtecan in previously treated locally-advanced or metastatic HER2-positive breast cancer.

We are conducting a phase 2 trial, called MOUNTAINEER, evaluating TUKYSA in combination with trastuzumab in patients with HER2-positive, RAS wild-type metastatic colorectal cancer after treatment with first- and second-line standard-of-care therapies. Initial results from 23 patients were presented at the ESMO 2019 Congress that demonstrated encouraging antitumor activity. We believe the trial could potentially support an application for accelerated approval in the U.S.

We are conducting a phase 2/3 trial, called MOUNTAINEER-02, in combination with trastuzumab, ramucirumab and paclitaxel in second-line HER2-positive metastatic gastroesophageal cancer. We have also initiated a phase 1b trial evaluating TUKYSA in combination with trastuzumab and oxaliplatin based chemotherapy in first-line HER2-positive unresectable or metastatic colorectal, gastric, esophageal and gallbladder cancers.

Tisotumab Vedotin

In collaboration with Genmab we are developing tisotumab vedotin for metastatic cervical cancer and are evaluating it for other solid tumors.

We and Genmab are conducting a pivotal phase 2 trial, called innovaTV 204, evaluating single-agent tisotumab vedotin for patients with recurrent and/or metastatic cervical cancer who have relapsed or progressed after standard of care treatment. In September 2020, data from the innovaTV 204 trial were presented at the European Society for Medical Oncology, or ESMO, Virtual Congress 2020. Results from the trial showed a 24 percent confirmed objective response rate, or ORR, by independent central review with a median duration of response, or DOR, of 8.3 months. The most common treatment-related adverse events (greater than or equal to 20 percent) included alopecia, epistaxis (nose bleeds), nausea, conjunctivitis, fatigue and dry eye. In February 2021, we submitted a BLA to the FDA seeking accelerated approval for recurrent or metastatic cervical cancer who have relapsed or progressed on or after prior treatment.

In January 2021, we and Genmab initiated a phase 3 clinical trial, called innovaTV 301, to evaluate tisotumab vedotin compared to chemotherapy in patients with recurrent or metastatic cervical cancer who have received one or two prior lines of therapy. innovaTV 301 is intended to support global regulatory applications for potential approvals in regions where innovaTV 204 does not support approval and to potentially serve as a confirmatory trial in the U.S. if we are able to obtain accelerated approval based on the tisotumab vedotin BLA submission.

We are also conducting a phase 2 clinical trial, called innovaTV 205, evaluating tisotumab vedotin as monotherapy and in combination with certain other anti-cancer agents for first-line treatment of patients with recurrent or advanced cervical cancer. Additionally, we are conducting a phase 2 clinical trial, called innovaTV 207, for patients with relapsed, locally advanced or metastatic solid tumors and a phase 2 clinical trial, called innovaTV 208, for patients with platinum-resistant ovarian cancer.

Ladiratuzumab Vedotin

We are developing ladiratuzumab vedotin, or LV, an ADC targeting LIV-1, which is currently being evaluated in phase 1 and phase 2 clinical trials both as monotherapy and in combination with other agents for patients with metastatic breast cancer and select solid tumors with high LIV-1 expression. In September 2020, we and a subsidiary of Merck entered into a license and collaboration agreement, or the LV Agreement, under which the companies will jointly develop and share future costs and profits worldwide for LV.

Other clinical and early-stage product candidates

We are advancing a pipeline of early-stage clinical candidates as well as multiple preclinical and research-stage programs that employ our proprietary technologies. We advanced several product candidates into clinical development in 2020 and we plan to submit additional IND applications to the FDA in 2021.

Our Antibody-Drug Conjugate (ADC) Technology

ADCETRIS, PADCEV and many product candidates in our clinical-stage pipeline utilize our ADC technology. ADCs are monoclonal antibodies that are linked to cytotoxic, or cell-killing, agents. Our ADCs utilize monoclonal antibodies that internalize within target cells after binding to a specified cell-surface receptor. Enzymes present inside the cell catalyze the release of the cytotoxic agent from the monoclonal antibody, which then results in the desired activity, specific killing of the target cell.

A key component of our ADCs are the linkers that attach the cell-killing agent to the monoclonal antibody. The drug linkers are designed to deliver the cytotoxic agent to tumors by virtue of the monoclonal antibody binding to the intended cell surface receptor on the target cell. The cytotoxic agent is released when the ADC internalizes within the target cell, resulting in cell killing. This targeted delivery of the cell-killing agent is intended to maximize delivery of the cytotoxic agent to targeted cells while minimizing toxicity to normal tissues. Our most advanced ADCs, including ADCETRIS, PADCEV, tisotumab vedotin and LV, use our proprietary auristatin-based ADC technology. Auristatins are microtubule disrupting agents. In contrast to natural products that are often more difficult to produce and link to antibodies, the cytotoxic drugs used in our ADCs are synthetically produced and are readily scalable for manufacturing. This technology is also the basis of our ADC collaborations. We own or hold exclusive or partially-exclusive licenses to multiple issued patents and patent applications covering our ADC technology. We continue to evaluate new linkers, antibody formats and cell-killing agents for use in our ADC programs.

Our Sugar-Engineered Antibody (SEA) Technology

Our proprietary SEA technology is a method to selectively reduce fucose incorporation in monoclonal antibodies as they are produced in cell line-based manufacturing. Our preclinical data show that this results in increased binding to innate immune effector cells and enhanced potency in antibody dependent cellular cytotoxicity, or ADCC, in tumor cells. We believe this enhancement in ADCC activity may provide improved anti-tumor activity. Our SEA technology is a novel approach to modify the activity of monoclonal antibodies that is complementary to our ADC technology.

A key feature of our SEA technology is that no genetic modification of the antibody-producing cell line is necessary and standard cell culture conditions can be used while maintaining the underlying manufacturing processes, yields and product quality. We believe the SEA approach may be simpler and more cost-effective to implement as compared to existing technologies for enhancing antibody effector function, most of which require development of new cell lines.

We have several product candidates that are being evaluated in phase 1 clinical trials that utilize our SEA technology including SEA-CD40, SEA-TGT, SEA-BCMA and SEA-CD70. These agents are targeted at a variety of cancer types.

Other Technologies

In addition, we utilize other technologies designed to maximize antitumor activity and reduce toxicity of antibody-based therapies. Genetic engineering enables us to produce antibodies that are optimized for their intended uses. For ADCs, we screen and select antibodies that bind to antigens that are differentially expressed on tumor cells versus vital normal tissues, rapidly internalized within target cells and have potent anti-tumor activity in preclinical models. For our SEA technology we produce antibodies that demonstrate potent anti-tumor activities by virtue of ADCC, or through additional immune stimulatory mechanisms that are triggered by the enhanced binding potency to innate immune cells. Our ADCs utilize native or engineered conjugation sites to optimize drug attachment. In some cases, we evaluate the use of our monoclonal antibodies and ADCs in combination with conventional chemotherapy and other anticancer agents, which may result in increased antitumor activity.

Research Programs

In addition to our pipeline of current product candidates and technologies, we have internal research programs directed toward developing new classes of potent anti-tumor and immune stimulatory agents and new ADC linkers, the identification of novel drug targets and monoclonal antibodies, and advancing our antibody engineering initiatives.

New Tumor Cell-Killing Agents. We continue to identify and study new agents with anti-tumor mechanisms of action that will provide pipeline diversity and complement the auristatins that we currently use in our ADC technology. We also seek to develop new drugs that are designed to activate the host immune system by targeting key immune stimulatory pathways that can mediate innate or adaptive anti-tumor immune responses.

New Drug Linkers. We are conducting research with the intent to develop new ADC linkers that are designed to provide the appropriate stability in the bloodstream and drug release characteristics to effectively target cancer cells and improved cancer cell selectivity and tolerability.

Novel Monoclonal Antibodies and Antigen Targets. We are actively engaged in internal efforts to identify and develop monoclonal antibodies, and other therapeutic molecules, to target tumor antigens and important tumor or immune pathways. For ADCs, we focus on drug targets that are highly expressed on the surface of cancer cells that have the appropriate expression, distribution and internalization properties that make them desirable as monoclonal antibody or ADC targets. We may then create and screen panels of cancer-reactive monoclonal antibodies in our laboratories to identify those with the desired specificity and optimized drug delivery properties. Additionally, we identify targets that play key roles in anti-tumor innate or adaptive immune responses and identify antibodies and other therapeutic molecules to stimulate an anti-tumor immune response. We supplement these internal efforts by evaluating opportunities to in-license targets and antibodies from academic groups and other biotechnology and pharmaceutical companies, such as our ongoing collaborations with Astellas and Genmab.

Antibody Engineering. We have substantial internal expertise in antibody engineering including humanization, binding affinity optimization, enhancement of immunological function by blocking fucosylation, as well as engineering antibodies to improve drug linkage sites for use with our ADC technology. By modifying the number and type of drug-linkage sites found on our antibodies, we believe that we can improve ADC drug properties and the cost-effectiveness of our manufacturing processes for conjugation of ADCs.

Corporate Collaborations

We enter into collaborations with pharmaceutical and biotechnology companies to advance the development and commercialization of our product candidates and to supplement our internal pipeline. We seek collaborations that will allow us to retain significant future participation in product sales through either profit-sharing or royalties paid on net sales. We also have licensed our technologies to collaborators to be developed with their own antibodies. These collaborations benefit us in many ways, including generating cash flow and revenues that partially offset expenditures on our internal research and development programs, expanding our knowledge base regarding ADCs across multiple targets and antibodies provided by our collaborators and providing us with future pipeline opportunities through co-development or opt-in rights to new product candidates.

Takeda ADCETRIS Collaboration

We have an agreement with Takeda for the global co-development of ADCETRIS and the commercialization of ADCETRIS by Takeda in its territory. We have commercial rights for ADCETRIS in the U.S. and its territories and in Canada. Takeda has commercial rights in the rest of the world. Under the collaboration, we and Takeda can each conduct development activities and equally co-fund the cost of certain mutually agreed development activities. Costs associated with co-development activities are included in research and development expense.

As of December 31, 2020, we had achieved milestone payments totaling $157.5 million related to regulatory and commercial progress by Takeda. As of December 31, 2020, total future potential development and regulatory milestone payments to us under this collaboration could total $77.0 million. In addition, we recognize royalty revenues, where royalties are based on a percentage of Takeda's net sales of ADCETRIS in its licensed territories, with percentages ranging from the mid-teens to the mid-twenties based on annual net sales tiers, and sales-based milestones. Takeda bears a portion of third-party royalty costs owed on its sales of ADCETRIS, which is included in royalty revenues.

Either party may terminate the collaboration agreement if the other party materially breaches the agreement and such breach remains uncured. Takeda may terminate the collaboration agreement for any reason upon prior written notice to us and we may terminate the collaboration agreement in certain circumstances. The collaboration agreement can also be terminated by mutual written consent of the parties. If neither party terminates the collaboration agreement, then the agreement automatically terminates on the expiration of all payment obligations.

Astellas PADCEV Collaboration

We have a collaboration agreement with Agensys, Inc., which subsequently became an affiliate of Astellas, to jointly research, develop and commercialize ADCs for the treatment of several types of cancer. The collaboration encompasses combinations of our ADC technology with fully-human antibodies developed by Astellas to proprietary cancer targets. Under this collaboration, we and Astellas are co-funding all development costs for PADCEV.

In 2018, we and Astellas entered into a joint commercialization agreement to govern the global commercialization of PADCEV:

- In the U.S., we and Astellas jointly promote PADCEV. We record sales of PADCEV in the U.S. and are responsible for all U.S. distribution activities. The companies each bear the costs of their own sales organizations in the U.S., equally share certain other costs associated with commercializing PADCEV in the U.S., and equally share in any profits realized in the U.S.
- Outside the U.S., we have commercialization rights in all countries in North and South America, and Astellas has commercialization rights in the rest of the world, including Europe, Asia, Australia and Africa. The agreement is intended to provide that we and Astellas will effectively equally share in costs incurred and any profits realized in all of these markets. Cost and profit sharing in Canada, the United Kingdom, Germany, France, Spain and Italy will be based on product sales and costs of commercialization. In the remaining markets, the commercializing party will bear costs and will pay the other party a royalty rate applied to net sales of the product based on a rate intended to approximate an equal profit share for both parties.

Astellas or its affiliates are responsible for overseeing the manufacturing supply chain for PADCEV for development and commercial use. However, we are responsible for packaging and labeling in countries in which we sell PADCEV. In addition, we are responsible for establishing a second source supply chain, whether through internal or third party sources.

Either party may terminate the collaboration agreement if the other party becomes insolvent or the other party materially breaches the agreement and such breach remains uncured. Subject to certain restrictions, either party may terminate the collaboration agreement for any reason upon prior written notice to the other party. The collaboration agreement can also be terminated by mutual written consent of the parties. If neither party exercises its option to terminate the collaboration agreement, then the agreement will automatically terminate on the later of the expiration of all payment obligations pursuant to the collaboration agreement, or the day upon which we and Astellas cease to develop and commercialize products under the agreement.

Either party may terminate the joint commercialization agreement if the other party becomes insolvent. The joint commercialization agreement expires on a country-by-country basis upon complete cessation of the commercialization, launch and selling of PADCEV in that country.

Either party may also opt out of co-development and profit-sharing under the collaboration agreement in return for receiving milestones and royalties from the continuing party. In addition, either party may opt out of co-development and profit-sharing for PADCEV on a country-by-country basis, in return for receiving royalties pursuant to the collaboration agreement from the continuing party with respect to that country.

Merck TUKYSA Collaboration

In September 2020, we entered into the TUKYSA Agreement with Merck. Under the TUKYSA Agreement, we granted Merck exclusive rights to commercialize TUKYSA in Asia, the Middle East and Latin America and other regions outside of the U.S., Canada and Europe. Merck is responsible for marketing applications for approval in its territory, supported by the positive results from the HER2CLIMB clinical trial. We retained commercial rights in, and will record sales in, the U.S., Canada and Europe. Merck also agreed to co-fund a portion of the TUKYSA global development plan, which encompasses several ongoing and planned trials across HER2-positive cancers. We will continue to lead ongoing TUKYSA global development operational execution. Merck will solely fund and conduct country-specific clinical trials necessary to support anticipated regulatory applications in its territories. Under the TUKYSA Agreement, we are responsible for supplying Merck with TUKYSA for the purpose of clinical development and commercialization. We received an upfront cash payment from Merck of $125.0 million and also received $85.0 million in prepaid research and development funding to be applied to Merck's global development cost sharing obligations. We are eligible to receive progress-dependent milestone payments of up to $65.0 million, and are entitled to receive tiered royalties on sales of TUKYSA by Merck that begin in the low twenty percent range and escalate based sales volume by Merck in its territory. We owe Array Biopharma Inc., or Array, an affiliate of Pfizer, a portion of any non-royalty payments received from sublicensing TUKYSA rights, as well as a low double-digit royalty based on net sales of TUKYSA by us, and will owe a single-digit royalty based on net sales of TUKYSA by Merck in its territories.

Genmab Tisotumab Vedotin Collaboration

We have a collaboration agreement with Genmab to develop and commercialize ADCs targeting tissue factor, under which we previously exercised a co-development option for tisotumab vedotin. Under this collaboration, we and Genmab are co-funding all development costs for tisotumab vedotin. In February 2021, we submitted a BLA for tisotumab vedotin to the FDA seeking accelerated approval for the treatment of patients with recurrent or metastatic cervical cancer with disease progression on or after chemotherapy.

In October 2020, we and Genmab entered into a joint commercialization agreement to govern the global commercialization of tisotumab vedotin:

- In the U.S., we and Genmab will co-promote tisotumab vedotin. We will record sales of tisotumab vedotin in the U.S. and will be responsible for leading U.S. distribution activities. The companies will each hire and maintain 50% of the sales representatives and medical science liaisons, equally share those and certain other costs associated with commercializing tisotumab vedotin in the U.S., and equally share in any profits realized in the U.S.
- Outside the U.S., we have commercialization rights in the rest of the world except for Japan, where Genmab has commercialization rights. In Europe, China, and Japan, we and Genmab will equally share 50% of the costs associated with commercializing tisotumab vedotin as well as any profits realized in these markets. In markets outside the U.S. other than Europe, China, and Japan, aside from certain costs enumerated in the agreement, we will be solely responsible for all costs associated with commercializing tisotumab vedotin, and will pay Genmab a royalty based on a percentage of aggregate net sales ranging from the mid-teens to mid-twenties.

We currently rely on Genmab for the supply of tisotumab vedotin. However, in connection with the joint commercialization agreement, we will be responsible for overseeing the clinical and any commercial manufacturing of tisotumab vedotin following a transition period. Either party may terminate the collaboration agreement or the joint commercialization agreement if the other party becomes insolvent or materially breaches the applicable agreement and such breach remains uncured. In addition, either party may terminate the collaboration agreement if such party's patent rights subject to the agreement are challenged by the other party or its sublicensees. Either party may also opt out of co-development and profit-sharing under the collaboration agreement in return for receiving milestones and royalties from the continuing party. The opt out provisions of the collaboration agreement may also be applied to the joint commercialization agreement. In addition, Genmab may elect to opt out of co-promotion of tisotumab vedotin in the United States by providing us with prior written notice.

Merck LV Collaboration

In September 2020, we entered into the LV Agreement with Merck. Under the terms of the LV Agreement, we granted Merck a co-exclusive worldwide development and commercialization license for LV and agreed to jointly develop and commercialize LV on a worldwide basis. We received an upfront cash payment of $600.0 million, and we are eligible to receive up to $850.0 million in milestone payments upon the initiation of certain clinical trials and regulatory approval in certain major markets, and up to an additional $1.75 billion in milestone payments upon the achievement of specified annual global net sales thresholds. Each company is responsible for 50% of global costs to develop and commercialize LV and will receive 50% of potential future profits. We will lead regulatory and distribution activities, and will record sales, in the United States and Canada. Merck will lead regulatory activities in Europe, and we will lead distribution activities and record sales in Europe. We and Merck will co-commercialize LV in the United States and Europe. Merck will lead regulatory, promotion and distribution activities, and will record sales, in countries outside of the United States, Canada and Europe.

The LV Agreement will remain in effect, unless earlier terminated, until LV is no longer being developed or commercialized under the LV Agreement. The LV Agreement also contains customary provisions for termination by Merck for convenience, and by either party, including in the event of breach of the LV Agreement, subject to cure, or upon a challenge of such party's licensed patents or upon the other party's bankruptcy, subject, in each case, to customary reversion rights.

In connection with the LV Agreement, we entered into a stock purchase agreement with Merck in September 2020, referred to as the Purchase Agreement, pursuant to which we agreed to issue and sell, and Merck agreed to purchase 5,000,000 newly-issued shares of our common stock, at a purchase price of $200 per share, for an aggregate purchase price of $1.0 billion. We closed the transactions contemplated by the Purchase Agreement on October 27, 2020 following the expiration of the waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976.

ADC License Agreements

We have license agreements for our ADC technology with a number of biotechnology and pharmaceutical companies. Under these agreements, which we have entered into in the ordinary course of business, we have granted research and commercial licenses to use our technology, most often in conjunction with the licensee's technology. In certain agreements, we also have agreed to conduct limited development activities and to provide other materials, supplies, and services to our licensees during a specified term of the agreement. We typically receive upfront cash payments and progress- and sales-dependent milestones for the achievement by our licensees of certain events, and annual maintenance fees and support fees for research and development services and materials provided under the agreements. We also are entitled to receive royalties on net sales of any resulting products incorporating our ADC technology. Our licensees are solely responsible for research, product development, manufacturing and commercialization of any product candidates under these agreements, which includes the achievement of the potential milestones.

In 2019, Genentech received accelerated approval from the FDA for Polivy™ (polatuzumab vedotin-piic), an ADC that uses our technology, to treat patients with relapsed or refractory diffuse large B-cell lymphoma. In August 2020, GlaxoSmithKline plc, or GSK, received accelerated approval from the FDA and conditional marketing authorization from the EC for Blenrep™ (belantamab mafodotin-blmf), an ADC developed by GSK that uses our technology, for treatment of patients with relapsed or refractory multiple myeloma who have received at least four prior therapies including an anti-CD38 monoclonal antibody, a proteasome inhibitor and an immunomodulatory agent. Under our ADC license agreements with Genentech and GSK, these events triggered milestone payments to us and we are also entitled receive royalties on net sales of Polivy and Blenrep worldwide. The product candidates being developed under our other ADC license agreements are at various stages of clinical and preclinical development. Our ability to generate meaningful future revenues from our other ADC license agreements will largely depend on products that incorporate our technologies entering late-stage clinical development, and receiving marketing approval from the FDA and subsequently being commercialized, if any.

In-license Agreements

We have in-licensed antibodies, targets and enabling technologies from pharmaceutical and biotechnology companies and academic institutions for use in our pipeline programs and ADC technology, including the following:

- Bristol-Myers Squibb License. In 1998, we obtained rights to some of our technologies and product candidates, portions of which are exclusive, through a license agreement with BMS. Through this license, we secured rights to use various targeting technologies. Under the terms of the license agreement, we are required to pay royalties in the low single digits on net sales of products, including ADCETRIS, which incorporate various technologies owned by BMS. Our obligation to pay royalties on ADCETRIS under the agreement expires in August 2021. The term of the license agreement expires on a country-by-country and product-by-product basis upon the later of the expiration of the last valid claim covering the applicable product within that country or either ten or twelve years depending on the particular patents applicable to the product after the first commercial sale of the applicable product within that country. We and BMS each have the right to terminate the license agreement prior to its expiration for insolvency or material breach, subject to cure and dispute resolution provisions. In addition, the license agreement will terminate automatically in the event that we fail to maintain certain required insurance.

- University of Miami License. In 1999, we entered into an exclusive license agreement with the University of Miami, Florida, covering an anti-CD30 monoclonal antibody that is the basis for the antibody component of ADCETRIS. Under the terms of this license, we made an upfront payment and progress-dependent milestone payments. We are required to pay annual maintenance fees and royalties in the low single digits on net sales of products, including ADCETRIS, incorporating technology licensed from the University of Miami. The term of the license agreement expires ten years after the first commercial sale of ADCETRIS or on August 21, 2021, upon which we will have in perpetuity a fully paid-up, royalty free, nonexclusive, sublicensable license. We and the University of Miami each have the right to terminate the license agreement prior to its expiration for insolvency or material breach, subject to cure provisions.
- Array BioPharma, Inc. We are a party to a license agreement with Array, which was acquired by Pfizer in July 2019. Pursuant to the license agreement, Array has granted us an exclusive license to develop, manufacture and commercialize TUKYSA. We will pay Array a portion of any non-royalty payments received from sublicensing TUKSYA rights, including non-royalty payments received from Merck pursuant to the TUKYSA Agreement. Array is also entitled to receive a low double-digit royalty based on net sales of TUKYSA by us and a single-digit royalty based on any net sales of TUKYSA by our sublicensees, including Merck. The term of the license agreement expires on a country-by-country basis upon the later of the expiration of the last valid claim covering TUKYSA within that country or 10 years after the first commercial sale of TUKYSA within that country. We and Array each have the right to terminate the license agreement prior to its expiration for insolvency or material breach, subject to cure and dispute resolution provisions.
- Other Licenses. Under the terms of in-license agreements related to our pipeline programs, we would potentially owe development, regulatory, and sales-based milestones, and royalties on net sales of certain approved products.

Patents and Proprietary Technology

Our owned and licensed patents and patent applications are directed to ADCETRIS, PADCEV, TUKYSA, our product candidates, monoclonal antibodies, our ADC and SEA technologies and other antibody-based and/or enabling technologies. We commonly seek patent claims directed to compositions of matter, including antibodies, ADCs, and drug-linkers containing highly potent cell-killing agents, as well as methods of using such compositions. When appropriate, we also seek claims to related technologies, such as methods of using certain sugar analogs utilized in our SEA technology. For each of our products and product candidates, we have filed or expect to file multiple patent applications. We maintain patents and prosecute applications worldwide for technologies that we have out-licensed, such as our ADC technology. Similarly, for partnered products and product candidates, such as ADCETRIS, PADCEV, TUKYSA, tisotumab vedotin and LV, we seek to work closely with our development partners to coordinate patent efforts, including patent application filings, prosecution, term extension, defense and enforcement. As our products and product candidates advance through research and development, we seek to diligently identify and protect new inventions, such as combination therapies, improvements to methods of manufacturing, and methods of treatment. We also work closely with our scientific personnel to identify and protect new inventions that could eventually add to our development pipeline.

We own or have rights to the following patents relating to our products and our pipeline (in addition to certain patents covering our early-stage product candidates):

- For ADCETRIS and our related ADC technology, we own twelve patents in the United States and Europe that will expire between 2021 and 2031.
- For PADCEV and our related ADC technology, we own, co-own or have licensed rights to thirteen patents in the United States and Europe that will expire between 2022 and 2031. Of these patents, we own or co-own eleven patents and have licensed rights to two patents.
- For TUKYSA, we have licensed rights to nine patents in the United States and Europe that will expire between 2024 and 2033.

- For tisotumab vedotin and our related ADC technology, we own, co-own or have licensed rights to eleven patents in the United States and Europe that will expire between 2022 and 2036. Of these patents, we own or co-own five patents and have licensed rights to six patents.
- For LV and our related ADC technology, we own, co-own or have licensed rights to nine patents in the United States and Europe that will expire between 2022 and 2032. Of these patents, we own or co-own eight patents and have licensed rights to one patent.

The actual protection afforded by a patent, which can vary from country to country, depends on the type of patent, the scope of its coverage as determined by the patent office or courts in the country, and the availability of legal remedies in the country. The list above does not identify all patents that may be related to our products and product candidates. For example, in addition to the listed patents, we have patents on platform technologies (that relate to certain general classes of products or methods), as well as patents that relate to methods of using, manufacturing or administering a product or product candidate, that may confer additional patent protection. We also have pending patent applications that may give rise to new patents related to one or more of these agents.

The information in the above list is based on our current assessment of patents that we own, co-own or control or have licensed. The information is subject to revision, for example, in the event of changes in the law or legal rulings affecting our patents or if we become aware of new information. Significant legal issues remain unresolved as to the extent and scope of available patent protection for biotechnology products and processes in the U.S. and other important markets outside the U.S. We expect that litigation will likely be necessary to determine the term, validity, enforceability, and/or scope of certain of our patents and other proprietary rights. An adverse decision or ruling with respect to one or more of our patents could result in the loss of patent protection for a product and, in turn, the introduction of competitor products or follow-on biologics to the market earlier than anticipated, and could force us to either obtain third-party licenses at a material cost or cease using a technology or commercializing a product.

Patents expire, on a country by country basis, at various times depending on various factors, including the filing date of the corresponding patent application(s), the availability of patent term extension and supplemental protection certificates and requirements for terminal disclaimers. Although we believe our owned and licensed patents and patent applications provide us with a competitive advantage, the patent positions of biotechnology and pharmaceutical companies can be uncertain and involve complex legal and factual questions. We and our corporate collaborators may not be able to develop patentable products or processes or obtain patents from pending patent applications. Even if patent claims are allowed, the claims may not issue. In the event of issuance, the patents may not be sufficient to protect the proprietary technology owned by or licensed to us or our corporate collaborators. Our or our collaborators' current patents, or patents that issue on pending applications, may be challenged, invalidated, infringed or circumvented. In addition, changes to patent laws in the United States or in other countries may limit our ability to defend or enforce our patents, or may apply retroactively to affect the term and/or scope of our patents. Our patents have been and may in the future be challenged by third parties in post-issuance administrative proceedings or in litigation as invalid, not infringed or unenforceable under U.S. or foreign laws, or they may be infringed by third parties. As a result, we are or may be from time to time involved in the defense and enforcement of our patent or other intellectual property rights in a court of law and administrative tribunals, such as in U.S. Patent and Trademark Office inter partes review or reexamination proceedings, foreign opposition proceedings or related legal and administrative proceedings in the United States and elsewhere. The costs of defending our patents or enforcing our proprietary rights in post-issuance administrative proceedings or litigation may be substantial and the outcome can be uncertain. An adverse outcome may allow third parties to use our proprietary technologies without a license from us or our collaborators. Our and our collaborators' patents may also be circumvented, which may allow third parties to use similar technologies without a license from us or our collaborators.

Our commercial success depends significantly on our ability to operate without infringing patents and proprietary rights of third parties. Organizations such as pharmaceutical and biotechnology companies, universities and research institutions may have filed patent applications or may have been granted patents that cover technologies similar to the technologies owned or licensed to us or to our collaborators. In addition, we are monitoring the progress of multiple pending patent applications of other organizations that, if granted, may require us to license or challenge their validity or enforceability in order to continue commercializing ADCETRIS, PADCEV, or TUKYSA or to commercialize our product candidates. Our challenges to patents of other organizations may not be successful, which may affect our ability to commercialize ADCETRIS, PADCEV, TUKYSA or our product candidates. We cannot determine with certainty whether patents or patent applications of other parties may materially affect our or our collaborators' ability to make, use or sell ADCETRIS, PADCEV, TUKYSA or any other products or product candidates.

We require our scientific personnel to maintain laboratory notebooks and other research records in accordance with our policies, which are designed to strengthen and support our intellectual property protection. In addition to our patented intellectual property, we also rely on trade secrets and other proprietary information, especially when we do not believe that patent protection is appropriate or can be obtained. Our policy is to require each of our employees, consultants and advisors to execute a proprietary information and inventions assignment agreement before beginning their employment, consulting or advisory relationship with us. These agreements provide that the individual must keep confidential and not disclose to other parties any confidential information developed or learned by the individual during the course of their relationship with us except in limited circumstances. These agreements also provide that we will own all inventions conceived or reduced to practice by the individual in the course of rendering services to us. Our policy and agreements and those of our collaborators may not sufficiently protect our confidential information, or third parties may independently develop equivalent information.

Government Regulation

The FDA and comparable regulatory agencies in state and local jurisdictions and in foreign countries impose substantial requirements upon the clinical development, pre-market approval, manufacture, marketing and distribution of biopharmaceutical products. These agencies and other regulatory agencies regulate research and development activities and the testing, approval, manufacture, quality control, safety, efficacy, labeling, storage, distribution, import, export, recordkeeping, pricing, advertising and promotion of products and product candidates. Failure to comply with applicable FDA or other requirements may result in Warning Letters, civil or criminal penalties, suspension or delays in clinical development, recall or seizure of products, partial or total suspension of production or withdrawal of a product from the market. The development and approval process requires substantial time, effort and financial resources, and we cannot be certain that any approvals for our product candidates will be granted on a timely basis, if at all. We must obtain approval of our product candidates from the FDA before we can begin marketing them in the United States. Similar approvals are also required in other countries.

Product development and approval within this regulatory framework is uncertain, can take many years and requires the expenditure of substantial resources. The necessary steps before a new biopharmaceutical product may be sold in the United States ordinarily include:

- preclinical *in vitro* and *in vivo* tests, some of which must comply with Good Laboratory Practices, or GLP;
- submission to the FDA of an IND which must become effective before clinical trials may commence, and which must be updated periodically as new information is obtained and at least annually with a report on development;
- development of a drug formulation and manufacture of the drug for clinical trials, and commercial sale, if approved;
- completion of adequate and well controlled human clinical trials to establish the safety and efficacy of the product candidate for its intended use;
- submission to the FDA of a BLA or NDA which must be accompanied by a substantial user fee unless the fee is waived;

- FDA pre-approval inspection of manufacturing facilities for current Good Manufacturing Practices, or GMP, compliance and FDA inspection of select clinical trial sites and/or trial sponsors for Good Clinical Practice, or GCP, compliance; and
- FDA review and approval of the BLA or NDA, which includes the product prescribing information, prior to any commercial sale.

Clinical Trials Regulation in the U.S.

The results of preclinical tests (which include laboratory evaluation as well as preclinical GLP studies to evaluate toxicity) for a particular product candidate, together with related manufacturing information and analytical data, and a clinical protocol are submitted as part of an IND to the FDA. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA, within the 30 day time period, raises concerns or questions about the conduct of the clinical trial, including concerns that human research subjects will be exposed to unreasonable health risks. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. New clinical trial protocols can be submitted to the existing IND during product development. Further, an independent institutional review board, or IRB, for each medical center proposing to conduct the clinical trial must review and approve the plan for any clinical trial before it commences at that center and it must monitor the study until completed. The FDA, the IRB or the sponsor may suspend a clinical trial at any time on various grounds, including a finding that the subjects or patients are being exposed to an unacceptable health risk. Clinical testing also must satisfy extensive GCP regulations and regulations for informed consent and privacy of individually-identifiable information.

Clinical trials generally are conducted in three sequential phases that may overlap or in some instances, be skipped. In phase 1, the initial introduction of the product into humans, the product candidate is tested to assess safety, metabolism, pharmacokinetics and pharmacological actions associated with increasing doses. Phase 2 usually involves trials in a limited patient population to evaluate the efficacy of the potential product for specific, targeted indications, determine dosage tolerance and optimum dosage and further identify possible adverse reactions and safety risks. Phase 3 and pivotal trials are undertaken to evaluate further clinical efficacy and safety often in comparison to standard therapies within a broader patient population, generally at geographically dispersed clinical sites. Phase 4, or post-marketing, trials may be required as a condition of commercial approval by the FDA and may also be voluntarily initiated by us or our collaborators. Phase 1, phase 2 or phase 3 testing may not be completed successfully within any specific period of time, if at all, with respect to any of our product candidates. Similarly, suggestions of safety, tolerability or efficacy in earlier stage trials do not necessarily predict findings of safety and efficacy in subsequent trials. Furthermore, the FDA, an IRB or we may suspend a clinical trial at any time for various reasons, including a finding that the subjects or patients are being exposed to an unacceptable health risk. Clinical trials are subject to central registration and results reporting requirements, such as on www.clinicaltrials.gov.

Approval Process in the U.S.

The results of preclinical studies, pharmaceutical development and clinical trials, together with information on a product's chemistry, manufacturing, and controls, are submitted to the FDA, in the form of a BLA or NDA, for approval of the manufacture, marketing and commercial shipment of the pharmaceutical product. Data from clinical trials are not always conclusive and the FDA and other regulatory agencies may interpret data differently than we or our collaborators interpret data. The FDA may also convene an Advisory Committee of external advisors to answer questions regarding the approvability and labeling of an application. The FDA is not obligated to follow the Advisory Committee's recommendation. The submission of a BLA or NDA is required to be accompanied by a substantial user fee, with few exceptions or waivers. The user fee is administered under the Prescription Drug User Fee Act, or PDUFA, which sets goals for the timeliness of the FDA's review. A standard review period is twelve months from submission of an original application, while priority review is eight months from submission of an original application. The testing and approval process is likely to require substantial time, effort and resources, and there can be no assurance that any approval will be granted on a timely basis, if at all. The FDA may deny review of an application by refusing to file the application or not approve an application by issuance of a complete response letter if applicable regulatory criteria are not satisfied, require additional testing or information, or require post-market testing and surveillance to monitor the safety or efficacy of the product. Approval may occur with significant Risk Evaluation and Mitigation Strategies, or REMS, that limit the clinical use in the prescribing information, distribution or promotion of a product.

Drug or biologic products studied for their safety and effectiveness in treating serious or life-threatening diseases or conditions may receive accelerated approval from the FDA upon a determination that the product has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit, or on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality, that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity, or prevalence of the condition and the availability or lack of alternative treatments. As a condition of accelerated approval, the FDA will generally require the sponsor to perform adequate and well-controlled post-marketing clinical studies to verify and describe the anticipated effect on irreversible morbidity or mortality or other clinical benefit. In addition, the FDA requires, as a condition for accelerated approval, pre-approval of promotional materials.

Once an approval is issued, the FDA may require safety-related labeling changes or withdraw product approval if ongoing regulatory requirements are not met or if safety problems occur after the product reaches the market. In addition, the FDA may require further testing of an approved product, including phase 4 clinical trials, and surveillance programs to monitor the safety of the approved product, and the FDA has the power to prevent or limit further marketing of the approved product based on the results of these post-marketing programs or other information.

Post-Approval Regulations in the U.S.

Products manufactured or distributed pursuant to FDA approvals are subject to continuing regulation by the FDA, including manufacture, labeling, distribution, advertising, promotion, recordkeeping, annual product quality review and reporting requirements. Adverse event experience with the product must be reported to the FDA in a timely fashion, and pharmacovigilance programs to proactively look for these adverse events are mandated by the FDA.

Manufacturers and their subcontractors are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with ongoing regulatory requirements, including cGMPs, which impose certain procedural and documentation requirements upon us and our third-party manufacturers. Following such inspections, the FDA may issue notices on Form FDA 483 and Warning Letters that could cause us to modify certain activities. A Form FDA 483 notice, if issued at the conclusion of an FDA inspection, can list conditions the FDA investigators believe may have violated cGMP or other FDA regulations or guidance. Failure to adequately and promptly correct the observations(s) can result in further regulatory enforcement action. In addition to Form FDA 483 notices and Warning Letters, failure to comply with the statutory and regulatory requirements can subject a manufacturer to possible legal or regulatory action, such as suspension of manufacturing, seizure of product, injunctive action or possible civil penalties. We cannot be certain that we or our present or future third-party manufacturers or suppliers will be able to comply with the cGMP regulations and other ongoing FDA regulatory requirements. If we or our present or future third-party manufacturers or suppliers are not able to comply with these requirements, the FDA may halt our clinical trials, not approve our products, require us to recall a product from distribution or withdraw approval of the BLA or NDA for that product. Failure to comply with ongoing regulatory obligations can result in delay of approval or Warning Letters, product seizures, criminal penalties, and withdrawal of approved products, among other enforcement remedies.

The FDA strictly regulates marketing, labeling, advertising and promotion of products that are placed on the market. These regulations include standards and restrictions for direct-to-consumer advertising, industry-sponsored scientific and educational activities, promotional activities involving the internet, and off-label promotion. While physicians may prescribe products for off-label uses, manufacturers may only promote products for the approved indications and in accordance with the provisions of the approved label. The FDA has very broad enforcement authority under the Federal Food, Drug and Cosmetic Act, and failure to abide by these regulations can result in penalties, including the issuance of a Warning Letter directing entities to correct deviations from FDA standards, and state and federal civil and criminal investigations and prosecutions.

FDA Regulation of Companion Diagnostics

Certain of our products and product candidates may rely upon in vitro companion diagnostics for use in selecting the patients that we believe will respond to our therapeutics. If safe and effective use of a therapeutic product depends on an in vitro diagnostic, the FDA generally will require approval or clearance of a reproducible, validated diagnostic test to be used with our therapeutic product at the same time that FDA approves the therapeutic product. The review of these in vitro companion diagnostics in conjunction with the review of our cancer treatments involves coordination of review by the FDA's Center for Drug Evaluation and Research and by the FDA's Center for Devices and Radiological Health. The FDA's premarket approval, or PMA, process is costly, lengthy, and uncertain. The receipt and timing of PMA approval may have a significant effect on the receipt and timing of any future commercial approvals for our products and product candidates. Human diagnostic products are subject to pervasive and ongoing regulatory obligations, including the submission of medical device reports, adherence to the Quality Systems Regulation, recordkeeping and product labeling, as enforced by the FDA and comparable state authorities.

The FDA's approval of ADCETRIS in the frontline PTCL indication included a post-marketing commitment to develop a clinically validated in-vitro diagnostic device for the selection of patients with CD30-expressing PTCL, not including sALCL, for treatment with ADCETRIS in this indication. We and Takeda have a collaboration with Ventana Medical Systems, Inc., or Ventana, under which Ventana is working to develop, manufacture and commercialize a companion diagnostic test to measure CD30 expression levels in tissue specimens. If Ventana develops an in-vitro diagnostic device that we are able to clinically validate, the FDA or another regulatory authority may revise our label for the frontline PTCL indication or in connection with any future approvals to require the use of the in-vitro test as a companion diagnostic. This may limit our ability to commercialize ADCETRIS in the applicable treatment setting due to potential label requirements, prescriber practices, constraints on availability of the diagnostic, or other factors. If Ventana is unable to successfully develop the CD30 in-vitro diagnostic, or experiences delays in doing so, or we experience delays in clinical validation of the diagnostic, we will likely need to renegotiate the timing or content of our post-marketing commitment regarding the in-vitro diagnostic device with the FDA.

Regulations Outside of the United States

In addition to regulations in the U.S., we and our collaborators are and will be subject to regulations of other countries governing clinical trials, manufacturing, distribution and commercial sales of our products. We must obtain approval by the regulatory authorities of countries outside of the U.S. before we can commence clinical trials in those countries and approval of the regulators of such countries or economic areas before we may market products in those countries or areas. For example, to commercialize TUKYSA in Europe, we will need to comply with applicable European regulations. The approval requirements and processes can vary greatly, and the time required may be longer or shorter than that required for FDA approval. Requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement also vary greatly from place to place.

Clinical Trials Regulation in Europe

In the EU, pursuant to the currently applicable Clinical Trials Directive 2001/20/EC and the Directive 2005/28/EC on GCP, a system for the approval of clinical trials in the EU has been implemented through national legislation of the EU member states. Under this system, an applicant must obtain approval from the national competent authority of an EU member state in which the clinical trial is to be conducted, or in multiple member states if the clinical trial is to be conducted in a number of member states. Furthermore, the applicant may only start a clinical trial at a specific study site after the independent ethics committee for each site has issued a favorable opinion. The clinical trial application must be accompanied by an investigational medicinal product dossier with supporting information prescribed by Directive 2001/20/EC and Directive 2005/28/EC and corresponding national laws of the individual EU member states and further detailed in applicable guidance documents. In April 2014, the EU adopted a new Clinical Trials Regulation (EU) No 536/2014, which is set to replace the current Clinical Trials Directive 2001/20/EC. It is anticipated that the new Clinical Trials Regulation (EU) No 536/2014 may come into effect in late 2021with a three-year transition period for some types of clinical trials. It will overhaul the current system of approvals for clinical trials in the EU. Specifically, the new regulation, which will be directly applicable in all EU member states, aims at simplifying and streamlining the approval of clinical trials in the EU. For instance, the new Clinical Trials Regulation provides for a streamlined application procedure via a single entry point and strictly defined deadlines for the assessment of clinical trial applications.

Marketing Authorization Regulation in Europe

In the European Economic Area, which is comprised of the 27 member states of the EU plus Norway, Iceland and Liechtenstein, medicinal products can only be commercialized after obtaining a marketing authorization through one of the following procedures: centralized, mutual recognition, and decentralized. Under the centralized procedure, a single marketing authorization application is submitted to the Committee for Medicinal Products for Human Use of the European Medicines Agency, which then makes a recommendation to the EC. The EC makes the final determination on whether to approve the application. The centralized procedure is compulsory for the approval, among others, of human medicines containing a new active substance to treat cancer. The mutual recognition and decentralized procedures provide for mutual recognition of individual national approval decisions and are available for products that are not subject to the mandatory scope of the centralized procedure. The U.K., following its exit from the EU and EEA, and Switzerland conduct separate regulatory reviews of new drug applications. Until December 31st, 2022, the U.K. will also issue national approvals via "reliance route", by recognizing the centralized EU approvals of new medicines.

For the EMA, an application designated as standard review typically lasts approximately twelve to fourteen months depending on the length of time sponsors take to address EMA questions. An accelerated assessment procedure is applicable to marketing authorization applications for medicinal products that are expected to be of major public health interest. For applications that receive accelerated assessment designation and are able to remain on this timeline, the review may last approximately seven months depending on the length of time sponsors take to address EMA questions. It is not unusual, however, for applications that receive accelerated assessment designation to revert to standard review if, for example, the EMA has determined that the significance of the questions that the company needs to address would be more appropriate under the standard review timelines. At the end of the review period, EMA will issue an opinion either in support of granting a marketing authorization (positive opinion) or recommending refusal of a marketing authorization (negative opinion). In the event of a negative opinion, the company may request a re-examination of the application. The initial marketing authorization granted in the EU is valid for five years. Once renewed, the authorization will be 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. The renewal of a marketing authorization is subject to a re-evaluation of the risk-benefit balance of the product by the national competent authorities or the EMA.

Post-approval Regulation in Europe

In countries where we receive regulatory approvals, we are subject to a variety of post-authorization regulations, including with respect to clinical studies, product manufacturing, advertising and promotion, distribution, and safety reporting.

Various requirements apply to the manufacturing and placing of medicinal products on the EU market. The manufacturing of medicinal products in the EU requires a manufacturing authorization, and the manufacturing authorization holder must comply with various requirements set out in the applicable EU laws, regulations and guidance. These requirements include compliance with EU cGMP standards when manufacturing medicinal products and active pharmaceutical ingredients, or APIs, including the manufacture of APIs outside of the EU with the intention to import the APIs into the EU. Similarly, the distribution of medicinal products into and within the EU is subject to compliance with the applicable EU laws, regulations and guidelines, including the requirement to hold appropriate authorizations for distribution granted by the competent authorities of the EU member states. Marketing authorization holders may be subject to civil, criminal or administrative sanctions, including suspension of manufacturing authorization, in case of non-compliance with the EU or EU member states' requirements applicable to the manufacturing of medicinal products.

The advertising and promotion of medicinal products are subject to EU member states' laws governing promotion of medicinal products, interactions with physicians, misleading and comparative advertising and unfair commercial practices. In addition, other legislation adopted by individual EU member states may apply to the advertising and promotion of medicinal products. Violations of the rules governing the promotion of medicinal products in the EU could be penalized by administrative measures, fines and imprisonment. These laws may further limit or restrict the advertising and promotion of our future products and impose limitations on promotional activities with health care professionals.

The holder of an EU marketing authorization for a medicinal product must also comply with the EU's pharmacovigilance legislation, which includes requirements for conducting pharmacovigilance surveillance, or the assessment and monitoring of the safety of medicinal products. The EMA reviews periodic safety update reports submitted by marketing authorization holders. If the EMA has concerns that the risk-benefit profile of a product has changed, it can adopt an opinion advising that the existing marketing authorization for the product be amended. The agency can also require that the marketing authorization holder conducts post-authorization safety studies. Non-compliance with such obligations can lead to the variation, suspension or withdrawal of marketing authorization or imposition of financial penalties or other enforcement measures.

Healthcare Regulation

U.S. federal and state healthcare laws and regulations are also applicable to our business. If we fail to comply with those laws, we could face substantial penalties and our business, results of operations, financial condition and prospects could be adversely affected. The healthcare laws and regulations that may affect our operations include, without limitation, anti-kickback and false claims laws, regulations prohibiting off-label promotion activities, and transparency laws regarding payments or other items of value provided to healthcare providers.

The federal Anti-Kickback Statute prohibits, among other things, knowingly and willfully soliciting, offering, receiving, or providing remuneration, directly or indirectly, in exchange for or to induce either the referral of an individual, or the furnishing or arranging for a good or service, for which payment may be made, in whole or in part, under a federal healthcare program, such as the Medicare and Medicaid programs. The term "remuneration" has been broadly interpreted to include anything of value. Although there are a number of statutory exceptions and regulatory safe harbors protecting some common activities from prosecution, the exceptions and safe harbors are drawn narrowly. Practices that involve remuneration that may be alleged to be intended to induce prescribing, purchases or recommendations may be subject to scrutiny if they do not qualify for an exception or safe harbor. Failure to meet all of the requirements of a particular applicable statutory exception or regulatory safe harbor does not make the conduct per se illegal under the Anti-Kickback Statute. Instead, the legality of the arrangement will be evaluated on a case-by-case basis based on a cumulative review of all its facts and circumstances. Several courts have interpreted the statute's intent requirement to mean that if any one purpose of an arrangement involving remuneration is to induce referrals of federal healthcare covered business, the Anti-Kickback Statute has been violated. Additionally, the intent standard under the Anti-Kickback Statute was amended by the Patient Protection and Affordable Care Act of 2010, as amended by the Health Care and Education Reconciliation Act of 2010, collectively PPACA, to a stricter standard such that a person or entity no longer needs to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. In addition, PPACA codified case law that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal civil False Claims Act.

The federal civil and criminal false claims laws, including the federal civil False Claims Act, prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, a false claim to, or the knowing use of false statements to obtain payment from, or approval by, the federal government, including the Medicare and Medicaid programs, or knowingly making, using, or causing to be made or used a false record or statement material to a false or fraudulent claim or to avoid, decrease, or conceal an obligation to pay money to the federal government.

The FDA and other governmental authorities also actively investigate allegations of off-label promotion activities in order to enforce regulations prohibiting these types of activities. In recent years, private whistleblowers have also pursued False Claims Act cases against a number of pharmaceutical companies for causing false claims to be submitted as a result of off-label promotion. If we are found to have promoted an approved product for off-label uses, we may be subject to significant liability, including significant civil and administrative financial penalties and other remedies as well as criminal penalties and other sanctions. Even when a company is not determined to have engaged in off-label promotion, the allegation from government authorities or market participants that a company has engaged in such activities could have a significant impact on the company's 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.

The federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, created additional federal criminal statutes that prohibit, among other actions, knowingly and willfully executing or attempting to execute a scheme to defraud any healthcare benefit program, including private third-party payors, knowingly and willfully embezzling or stealing from a healthcare benefit program, willfully obstructing a criminal investigation of a healthcare offense, and knowingly and willfully falsifying, concealing, or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items, or services. Like the Anti-Kickback Statute, PPACA amended the intent standard for certain healthcare fraud under HIPAA such that a person or entity no longer needs to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation.

The civil monetary penalties statute imposes penalties against any person or entity that, among other things, is determined to have presented or caused to be presented a claim to a federal health program that the person knows or should know is for an item or service that was not provided as claimed or is false or fraudulent.

The federal Physician Payments Sunshine Act, created under PPACA and its implementing regulations, requires certain manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid, or the Children's Health Insurance Program to annually report information related to certain payments or other transfers of value provided to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors), and teaching hospitals, or to entities or individuals at the request of, or designated on behalf of, the physicians and teaching hospitals, and to report annually certain ownership and investment interests held by physicians and their immediate family members. Beginning in 2022, applicable manufacturers also will be required to report information related to payments and other transfers of value provided to physician assistants, nurse practitioners, clinical nurse specialists, certified registered nurse anesthetists, anesthesiologist assistants and certified nurse midwives during the previous year. Failure to submit timely, accurately and completely the required information for all payments, transfers of value and ownership or investment interests may result in civil monetary penalties of up to an aggregate of $150,000 per year and up to an aggregate of $1 million per year for "knowing failures," as adjusted for inflation. Covered manufacturers are required to submit reports on aggregate payment data to the Secretary of the U.S. Department of Health and Human Services on an annual basis.

Many states have similar statutes or regulations to the above federal laws and regulations that may be broader in scope than the aforementioned federal versions and apply regardless of payor, and many of which differ from each other in significant ways and may not have the same effect, further complicating compliance efforts. Additionally, our business operations in countries outside the United States, including Canada and the EU, may subject us to additional regulation.

Because of the breadth of these laws and the narrowness of the statutory exceptions and safe harbors available under such laws, it is possible that some of our business activities could be subject to challenge under one or more of such laws. If our operations were found to be in violation of any of the health regulatory laws described above or any other laws that apply to us, we may be subject to penalties, including potentially significant criminal and civil and/or administrative penalties, damages, fines, disgorgement, contractual damages, reputational harm, administrative burdens, imprisonment, diminished profits and future earnings, exclusion from participation in government healthcare reimbursement programs, additional reporting requirements and oversight if we become subject to a corporate integrity agreement or similar agreement to resolve allegations of non-compliance with these laws, and/or the curtailment or restructuring of our operations.

Anti-Corruption Legislation

We are also subject to numerous other laws and regulations that are not specific to the healthcare industry. For instance, the U.S. Foreign Corrupt Practices Act, or FCPA, generally prohibits paying, offering to pay, or authorizing the payment of anything of value to any foreign government official, governmental staff members, political party or political candidate in an attempt to obtain or retain business or to otherwise influence a person working in an official capacity. The FCPA also requires public companies to make and keep books and records that accurately and fairly reflect the transactions of the corporation and to devise and maintain an adequate system of internal accounting controls. In Europe, national anti-corruption laws prohibit giving, offering, or promising bribes to any person, including foreign government officials and private persons, as well as requesting, agreeing to receive, or accepting bribes from any person. Various European anti-corruption laws have broad extraterritorial reach and therefore we may be subject to those laws even if we do not have an established entity in those countries and we may be held liable for bribes given, offered or promised to any person, including private persons, by employees and persons associated with us in order to obtain or retain business or a business advantage. As we expand our footprint and activities outside of the U.S. and Canada, our exposure to compliance risks under the FCPA and other similar laws will likewise increase.

Privacy and Security Laws

There are also numerous privacy and data protection laws to which we are currently, and/or may in the future, be subject. The U.S. federal government, individual U.S. states, EU member countries and other jurisdictions, including Switzerland and Canada, have adopted data protection laws and regulations which impose significant compliance obligations. For example, the use and international transfer of personal data collected in the EU is governed by the provisions of the EU General Data Protection Regulation, or the GDPR. The GDPR, which is wide-ranging in scope, imposes several requirements relating to the control over personal data by individuals to whom the personal data relates, the information provided to the individuals, the documentation we must maintain, the security and confidentiality of the personal data, data breach notification and the use of third-party processors in connection with the processing of personal data. The GDPR also imposes strict rules on the transfer of personal data out of the EU, provides an enforcement authority and authorizes the imposition of large penalties for noncompliance, including the potential for fines of up to €20 million or 4% of the annual global revenues of the non-compliant company, whichever is greater. The GDPR requirements apply not only to third-party transactions, but also to transfers of information between us and our subsidiaries, including employee information. The GDPR has increased our responsibility and potential liability in relation to all types of personal data that we process, including in clinical trials, and we may be required to put in place additional mechanisms to ensure compliance with the GDPR, which could divert management's attention and increase our cost of doing business. However, despite our ongoing efforts to bring our practices into compliance with the GDPR, we may not be successful either due to various factors within our control or other factors outside our control. Local data protection authorities can also have different interpretations of the GDPR, leading to potential inconsistencies amongst various EU member states.

Moreover, one of the primary safeguards allowing U.S. companies to import personal information from Europe has been certification to the EU-U.S. Privacy Shield and Swiss-U.S. Privacy Shield frameworks administered by the U.S. Department of Commerce. However, the Court of Justice of the EU, or the CJEU, recently invalidated the EU-U.S. Privacy Shield. The same decision also raised questions about whether one of the primary alternatives to the EU-U.S. Privacy Shield, namely, the EC's Standard Contractual Clauses, provide sufficient protection for personal data transferred from Europe to the U.S. or most other countries without analyzing each transfer and implementing supplementary measures to protect the data. Following recent recommendations from the European Data Protection Board, we are undertaking a review of personal data transfers from the EU and will assess the impact of the CJEU decision on our operations. At present, there are few, if any, viable alternatives to the EU-U.S. Privacy Shield and the Standard Contractual Clauses. Where appropriate, we rely on individuals' explicit consent to transfer their personal information from Europe to the U.S. and other countries. In addition, we rely on inter-company Standard Contractual Clauses to provide appropriate safeguards for such transfers. The EC is expected to publish new Standard Contractual Clauses soon and to give companies relying on them for transfers 12 months to adapt. Authorities in Switzerland, whose data protection laws are similar to those of the EU, also invalidated use of the Swiss-U.S. Privacy Shield. Authorities in the United Kingdom, or U.K., may similarly invalidate use of the EU-U.S. Privacy Shield. The U.K.'s departure from the EU, known as Brexit, has created additional uncertainty with regard to data protection regulation in the U.K., as it is unclear whether the U.K. and EU will be able to negotiate a mutually agreeable data protection agreement that regulates data transfers between the U.K. and EU and what impact this will have on our business. If we are unable to rely on explicit consent to transfer individuals' personal information from Europe, which can be revoked, or if, upon review by authorities, our existing compliance solutions are found to be insufficient, we will face increased exposure to substantial fines under European data protection laws as well as injunctions against processing personal information from persons resident in Europe. The inability to import personal information from the European Economic Area, U.K. or Switzerland could restrict our clinical trial activities in Europe, limit our ability to collaborate with contract research organizations, service providers, contractors and other companies subject to European data protection laws, interfere with our ability to hire employees in Europe and require us to increase our data processing capabilities in Europe at significant expense.

HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and their implementing regulations, also imposes certain requirements on certain types of individuals and entities relating to the privacy and security of individually identifiable health information. Among other things, HITECH makes HIPAA's security standards directly applicable to business associates, independent contractors or agents of covered entities that receive or obtain protected health information in connection with providing a service for or on behalf of a covered entity. HITECH also created four new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys' fees and costs associated with pursuing federal civil actions.

In any event, our failure or alleged failure (including as a result of deficiencies in our policies, procedures or measures relating to privacy, data protection, marketing or communications) to comply with laws, regulations, policies, legal or contractual obligations, industry standards or regulatory guidance relating to privacy or data protection, may result in governmental investigations and enforcement actions, litigation, fines and penalties or adverse publicity. In addition, new regulation, legislative actions or changes in interpretation of existing laws or regulations regarding privacy and data protection (together with applicable industry standards) may increase our costs of doing business. In this regard, we expect that there will continue to be new laws, regulations and industry standards relating to privacy and data protection in the U.S., the EU and other jurisdictions, such as the California Consumer Privacy Act of 2018 and the California Privacy Rights Act of 2020, which have been characterized as "GDPR-like" privacy laws, and we cannot determine the impact such new laws, regulations and standards may have on our business.

Coverage and Reimbursement

Sales of ADCETRIS, PADCEV, TUKYSA and any future products depend, in significant part, on the extent to which the costs of our products will be covered by third-party payors, such as government health programs, commercial insurance and managed healthcare organizations. Patients who are prescribed treatment for their conditions and providers performing the prescribed services generally rely on third-party payors to reimburse all or part of the associated healthcare costs. Patients and providers are unlikely to use our products unless coverage is provided and reimbursement is adequate to cover a significant portion of the cost of our products. Pharmaceutical products are typically reimbursed based on FDA labeled indications, recognized compendia listings, available medical literature, evidence of favorable clinical outcomes, determination of medical necessity and cost effectiveness.

Additionally, a third-party payor's decision to provide coverage for a product does not imply that an adequate reimbursement rate will be approved. In the United States, no uniform policy of coverage and reimbursement for products exists among third-party payors. Therefore, coverage and reimbursement for products can differ significantly from payor to payor. Decisions regarding the extent of coverage and amount of reimbursement to be provided for each of our product candidates is individual to each insurer, can vary based on provider contract, and will be affected by state and federal laws providing for reimbursement formulas based on acquisition cost. Third-party payors continue to work diligently to control their spending on prescription drugs and medical service. The containment of healthcare costs has become a priority of the U.S. government and abroad, and the prices of drugs have been a focus in this effort. The U.S. government, state legislatures and the governments of other countries have shown significant interest in implementing cost-containment programs, including price controls, restrictions on reimbursement and requirements for substitution of generic products. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit our net sales and negatively impact our operating results. Payors, commercial and public in the U.S. and abroad, must review the therapeutic value of our products before extending coverage under their plans to reimburse our products. If third-party payors do not find a product to be of therapeutic value, they may not cover it or, if they do, they may do so at an insufficient level of payment.

Many of the patients in the U.S. who seek treatment with ADCETRIS, PADCEV or TUKYSA may be eligible for Medicare or Medicaid benefits. The Medicare and Medicaid programs are administered by the Centers for Medicare and Medicaid Services, or CMS, and coverage and reimbursement for products and services under these programs are subject to changes in CMS regulations and interpretive policy determinations, in addition to statutory changes made by Congress. For example, PPACA increased the mandated Medicaid rebate on most branded prescription drugs from 15.1% of average manufacturer price, or AMP, to 23.1% of AMP, expanded the rebate to Medicaid managed care utilization and increased the types of entities eligible for the federal 340B drug discount program. Federal budget decisions have reduced Medicare payment rates, and future budget decisions may reduce Medicare payment rates again. In addition, as a condition of federal funds being made available to cover our products under Medicaid, we are required to participate in the Medicaid drug rebate program. The rebate amount under this program varies by quarter, and is based on pricing data we report to CMS. In addition, because we participate in the Medicaid drug rebate program, we must make ADCETRIS, PADCEV and TUKYSA available to authorized users of the Federal Supply Schedule of the General Services Administration. This requires compliance with additional laws and requirements, including offering ADCETRIS, PADCEV and TUKYSA at a reduced price to federal agencies including the United States Department of Veterans Affairs and United States Department of Defense, the Public Health Service and the Indian Health Service. We are also required to offer discounted pricing to certain eligible not for profit entities that are eligible for 340B pricing under the Public Health Services Act. Participation in these programs requires submission of pricing data and calculation of discounts and rebates pursuant to complex statutory formulas, as well as the entry into government procurement contracts governed by the Federal Acquisition Regulations and the guidance governing such calculations is not always clear. Compliance with such requirements can require significant investment in personnel, systems and resources, but failure to properly calculate our prices, or offer required discounts or rebates could subject us to substantial criminal, civil and/or administrative penalties, as well as, administrative burdens and exclusion from or contract termination regarding these programs. The terms of these government programs could change in the future which may increase the discounts or rebates we are required to offer, possibly reducing the revenue derived from sales of our products to these entities.

Policies governing drug pricing vary widely from country to country. In many European countries, authorities regulate the pricing of a pharmaceutical product at launch or subsequent to launch through direct price controls such as international reference pricing. In addition, in many European countries, pharmaceutical products are funded largely by the national healthcare systems. As a result, patients are unlikely to use a pharmaceutical product that is not reimbursed by the national authorities. There can be no assurance as to the pricing and/or level of reimbursement that may be available for our products in countries with pricing and reimbursement policies in place at the national level.

Health Technology Assessment, or HTA, of pharmaceutical products is becoming an increasingly common part of the pricing and reimbursement procedures in EU member states. The HTA process, which is governed by the national laws of the applicable country, aims to measure the added value of a new health technology compared to existing ones by assessing its public health impact, therapeutic impact and economic and societal impact in the context and setting of the individual country's national healthcare system. HTA generally focuses on the clinical efficacy and effectiveness, safety, cost and cost-effectiveness of individual pharmaceutical products in comparison to the local standard of care, as well as their potential implications for the healthcare system. The outcome of HTA regarding specific medicinal products will often influence the pricing and reimbursement status granted to these pharmaceutical products by the competent authorities of individual EU member states. Pursuant to Directive 2011/24/EU, a voluntary network of national authorities or bodies responsible for HTA in the individual EU member states was established. The purpose of the network is to facilitate and support the exchange of scientific information concerning HTAs. This could lead to harmonization between EU member states of the criteria taken into account in the conduct of HTA and their impact on pricing and reimbursement decisions.

Healthcare Reform

PPACA substantially changed the way healthcare is financed by both governmental and private insurers and significantly affected the pharmaceutical industry. PPACA has, among other things, expanded and increased industry rebates for products covered under Medicaid programs and changed the coverage requirements under the Medicare Part D program. In order for a biopharmaceutical product to receive federal reimbursement under the Medicare Part B and Medicaid programs or to be sold directly to U.S. government agencies, the manufacturer must extend discounts to entities eligible to participate in the drug pricing program under the Public Health Services Act, or PHS. The required PHS discount on a given product is calculated based on the Average Manufacturers Price, or AMP, and Medicaid rebate amounts reported by the manufacturer. PPACA expanded the types of entities eligible to receive discounted PHS pricing, although, under the current state of the law, with the exception of children's hospitals, these newly eligible entities will not be eligible to receive discounted PHS pricing on orphan drugs when used for the orphan indication. In addition, as PHS drug pricing is determined based on AMP and Medicaid rebate data, revisions, including the AMP rule, to the Medicaid rebate formula and AMP definition described above could cause the required PHS discount to increase.

There remain judicial, executive and Congressional challenges to certain aspects of PPACA, as well as efforts to repeal or replace PPACA. While Congress has not passed comprehensive repeal legislation, the tax reform legislation signed into law on December 22, 2017 included a provision repealing, effective January 1, 2019, the tax-based shared responsibility payment imposed by the PPACA on certain individuals who fail to maintain qualifying health coverage for all or part of a year that is commonly referred to as the "individual mandate." Based on the repeal of the individual mandate, in December 2018, a federal district court in Texas ruled that PPACA is unconstitutional. Additionally, on December 18, 2019, the U.S. Court of Appeals for the 5th Circuit upheld the district court ruling that the individual mandate was unconstitutional and remanded the case back to the district court to determine whether the remaining provisions of PPACA are invalid as well. In March 2020, the U.S. Supreme Court granted the petitions for writs of certiorari to review this case, and held oral arguments in November 2020. The U.S. Supreme Court is currently reviewing the case, although it is uncertain when a decision will be made. It is also unclear how recent changes to the composition of the U.S. Supreme Court may impact its review of this case, as well as other future cases. With the change in administration, further developments with respect to PPACA are likely.

In addition, other legislative changes have been proposed and adopted since PPACA was enacted. The Budget Control Act of 2011, among other things, created the Joint Select Committee on Deficit Reduction to recommend to Congress proposals in spending reductions. The Joint Select Committee did not achieve a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, triggering the legislation's automatic reduction to several government programs. This includes reductions to Medicare payments to providers, which went into effect in April 2013 and, following passage of the Bipartisan Budget Act of 2015, will remain in effect through 2030, with the exception of a temporary suspension from May 1, 2020 through March 31, 2021, unless additional congressional action is taken. The American Taxpayer Relief Act of 2012, among other things, reduced Medicare payments to several providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

In addition, the Drug Supply Chain Security Act, or DSCSA, was enacted with the aim of building an electronic system to identify and trace certain prescription drugs distributed in the United States, including most biological products. The DSCSA mandates phased-in and resource-intensive obligations for pharmaceutical manufacturers, wholesale distributors, and dispensers over a 10-year period that is expected to culminate in November 2023.

As described above in "Coverage and Reimbursement", federal and state legislatures, governments in countries outside the U.S., health agencies and third-party payors continue to focus on containing the cost of health care. Legislative and regulatory changes and increasing pressure from social sources are likely to further influence the manner in which our products are priced, prescribed, purchased and reimbursed. For example, the Trump administration put forth a number of proposals aimed at containing prescription drug prices and announced several Executive Orders that sought to implement a number of his administration's proposals. As a result of the Executive Orders issued by the Trump Administration, the FDA released a final rule, effective November 30, 2020, that cleared a path for importation of some Canadian drugs into the U.S. Biological products were excluded from the rule's definition of "eligible prescription drug," however TUKYSA may be subject to importation from Canada under this rule, which could negatively affect TUKYSA sales in the U.S. The Biden administration is likely to similarly pursue and implement measures aimed at reducing pharmaceutical drug pricing and containing the cost of healthcare.

Competition

The biotechnology and biopharmaceutical industries are characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. Many third parties compete with us in developing various approaches to treating cancer. They include pharmaceutical companies, biotechnology companies, academic institutions and other research organizations.

Many of our competitors have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approval and marketing than we do. In addition, many of these competitors are active in seeking patent protection and licensing arrangements in anticipation of collecting royalties for use of technology that they have developed. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These third parties compete with us in recruiting and retaining qualified scientific and management personnel, as well as in acquiring technologies complementary to our programs.

With respect to ADCETRIS, there are several other FDA approved drugs for its approved indications. BMS's nivolumab and Merck's pembrolizumab are approved for the treatment of certain patients with relapsed or refractory classical Hodgkin lymphoma, and Celgene's romidepsin and Acrotech Biopharma's' pralatrexate and belinostat are approved for relapsed or refractory sALCL among other T-cell lymphomas. Kyowa Kirin's mogamulizumab is approved for adult patients with relapsed or refractory mycosis fungoides or Sézary syndrome. The competition ADCETRIS faces from these and other therapies is intensifying. Additionally, Merck is conducting a phase 3 clinical trial in relapsed or refractory classical Hodgkin lymphoma comparing pembrolizumab with ADCETRIS. An interim analysis of this clinical trial demonstrated a statistically significant improvement in progression-free survival for pembrolizumab compared with ADCETRIS, resulting in a label expansion to an earlier line of therapy, and we expect increased competition from pembrolizumab in this indication. We are also aware of multiple investigational agents currently being studied that, if successful, may compete with ADCETRIS in the future. Data have also been presented on several developing technologies, including bispecific antibodies and CAR modified T-cell therapies that may compete with ADCETRIS in the future. Further, there are many competing approaches used in the treatment of patients in ADCETRIS' approved indications, including auto-HSCT, allogeneic hematopoietic stem cell transplant, combination chemotherapy, clinical trials with experimental agents and single-agent regimens.

With respect to PADCEV, other treatments in pretreated metastatic urothelial cancer include checkpoint inhibitor monotherapy, generic chemotherapy and, for patients with select fibroblast growth factor receptor genetic alterations, Janssen's erdafitinib. There are other investigational agents that, if approved, could be competitive with PADCEV, such as Gilead's' sacituzumab govitecan, which is in a pivotal phase 2 study. Treatment in frontline metastatic urothelial cancer has traditionally been treated with chemotherapy alone but is evolving to include two checkpoint inhibitor therapies for cisplatin-ineligible patients with high PD-L1 expression or patients who are ineligible for platinum therapy. Several trials of investigational agents in combination with chemotherapy or other novel agents are ongoing. Continued development of PD-(L)1 targeted therapies across early stage bladder cancer and in metastatic bladder cancer in frontline combinations with chemotherapy, in frontline maintenance with the recent approval of avelumab, and in pretreated disease, could potentially impact PADCEV usage and enrollment to PADCEV clinical trials. In addition, the competitive positioning for PADCEV will also depend on, among other things, the extent to which we and Astellas are able to obtain regulatory approvals of PADCEV in additional indications in the U.S., including in the frontline metastatic urothelial cancer setting, and in territories outside the U.S.

With respect to TUKYSA, there are multiple marketed products which target HER2, including the antibodies trastuzumab and pertuzumab and the antibody drug conjugate T-DM1. In addition, lapatinib is an EGFR/HER2 oral kinase inhibitor for the treatment of metastatic breast cancer, and neratinib is an irreversible pan-HER kinase inhibitor indicated for extended adjuvant treatment and has been recently approved for patients who have received two or more prior anti-HER2-based regimens in the metastatic setting. Daiichi Sankyo and AstraZeneca have fam-trastuzumab deruxtecan-nxki, which was recently approved for patients who have received two or more prior anti-HER2-based regimens in the metastatic breast cancer setting and also in HER2 positive gastric cancer. Byondis has an antibody drug conjugate, SYD985, in a pivotal study in this patient population and MacroGenics has a HER2 targeted, Fc-optimized antibody, margetuximab, which was recently approved by the FDA.

With respect to tisotumab vedotin, in June 2018, Merck's pembrolizumab was approved for the treatment of recurrent or metastatic cervical cancer with disease progression on or after chemotherapy in patients whose tumors express PD-L1. We are also aware of other companies that currently have products in development for the treatment of late-stage cervical cancer which could be competitive with tisotumab vedotin, including Agenus, BMS, Iovance Biotherapeutics, Merck, Regeneron Pharmaceuticals, Sanofi-Aventis and Roche.

Many other pharmaceutical and biotechnology companies are developing and/or marketing therapies for the same types of cancer that our product candidates are designed and being developed to treat. For example, we believe that companies including AbbVie, ADC Therapeutics, Affimed, Agios, Amgen, Astellas, Bayer, Biogen, BMS, Celgene, Daiichi Sankyo, Eisai, Genentech, GSK, Gilead, ImmunoGen, Infinity, Janssen, Karyopharm, MacroGenics, MedImmune, MEI Pharma, Merck, Novartis, Pfizer, Puma Biotech, Sanofi-Aventis, Spectrum Pharmaceuticals, Takeda, Teva, and Xencor are developing and/or marketing products or technologies that may compete with ours. In addition, our ADC collaborators may develop compounds utilizing our technology that may compete with product candidates that we are developing.

We are aware of other companies that have technologies that may be competitive with ours, including AbbVie, ADC Therapeutics, Astellas, AstraZeneca, BMS, Daiichi Sankyo, Gilead, ImmunoGen, Janssen, MedImmune, Merck, Mersana, Pfizer, Roche, Sutro and Zymeworks, all of which have ADC technology. ImmunoGen has several ADCs in development that may compete with our product candidates. ImmunoGen has also established partnerships with other pharmaceutical and biotechnology companies to allow those other companies to utilize ImmunoGen's technology, including Sanofi-Aventis, Genentech, Novartis, Takeda and Lilly. We are also aware of a number of companies developing monoclonal antibodies directed at the same antigen targets or for the treatment of the same diseases as our product candidates.

In addition, in the U.S., the Biologics Price Competition and Innovation Act of 2009 created an abbreviated approval pathway for biological products that are demonstrated to be "highly similar" or "biosimilar" to or "interchangeable" with an FDA approved biological product. This pathway allows competitors to reference the FDA's prior approvals regarding innovative biological products and data submitted with a BLA to obtain approval of a biosimilar application twelve years after the time of approval of the innovative biological product. The twelve-year exclusivity period runs from the initial approval of the innovator product and not from approval of a new indication. In addition, the twelve-year exclusivity period does not prevent another company from independently developing a product that is highly similar to the innovative product, generating all the data necessary for a full BLA and seeking approval. Exclusivity only assures that another company cannot rely on the FDA's prior approvals in approving a BLA for an innovator's biological product to support the biosimilar product's approval. Further, under the FDA's current interpretation, it is possible that a biosimilar applicant could obtain approval for one or more of the indications approved for the innovator product by extrapolating clinical data from one indication to support approval for other indications. In the EU, the EC has granted marketing authorizations for biosimilars pursuant to a set of general and product class-specific guidelines. We are aware of many pharmaceutical and biotechnology and other companies that are actively engaged in research and development of biosimilars or interchangeable products.

It is possible that our competitors will succeed in developing technologies that are more effective than ADCETRIS, PADCEV, TUKYSA, tisotumab vedotin, or our other product candidates or that would render our technology obsolete or noncompetitive, or will succeed in developing biosimilar, interchangeable or generic products for ADCETRIS, PADCEV, TUKYSA, tisotumab vedotin or our other product candidates. We anticipate that we will continue to face increasing competition in the future as new companies enter our market and scientific developments surrounding biosimilars and other cancer therapies continue to accelerate. We cannot predict to what extent the entry of biosimilars or other competing products will impact potential future sales of ADCETRIS, PADCEV, TUKYSA, tisotumab vedotin, or our other product candidates.

With respect to our current and potential future product candidates, we believe that our ability to compete effectively and develop products that can be manufactured cost-effectively and marketed successfully will depend on our ability to:

- advance our technology platforms;
- license additional technology;
- complete clinical trials which position our products for regulatory and commercial success;
- maintain a proprietary position in our technologies and products;
- obtain required government and other public and private approvals on a timely basis;
- attract and retain key personnel;
- commercialize effectively;
- obtain reimbursement for our products in approved indications;
- comply with applicable laws, regulations and regulatory requirements and restrictions with respect to the commercialization of our products, including with respect to any changed or increased regulatory restrictions; and
- enter into additional collaborations to advance the development and commercialization of our product candidates.

Manufacturing

ADCETRIS

We rely on contract manufacturing organizations to supply ADCETRIS for our clinical trials and for commercial sale. For the monoclonal antibody used in ADCETRIS, we have contracted with AbbVie for clinical and commercial supplies. For the drug linker used in ADCETRIS, we have contracted with Millipore Sigma, a subsidiary of Merck KGaA, for clinical and commercial supplies. We have multiple contract manufacturers for conjugating the drug linker to the antibody and producing ADCETRIS drug product. In addition, we rely on other third parties to supply the raw materials used to produce ADCETRIS, and to perform additional steps in the manufacturing process, including storage and distribution of ADCETRIS and our product candidates. For the foreseeable future, we expect to continue to rely on contract manufacturers and other third parties to produce, store and distribute sufficient quantities of ADCETRIS for use in our clinical trials and for commercial sale.

AbbVie Biotechnology. In 2004, we entered into a development and supply agreement with AbbVie (formerly a part of Abbott Laboratories) to manufacture developmental, clinical and commercial quantities of anti-CD30 monoclonal antibody, which is a component of ADCETRIS. The agreement generally provides for the supply by AbbVie and the purchase by us of such anti-CD30 monoclonal antibody. Under terms of the supply agreement, we may purchase a portion of our required anti-CD30 monoclonal antibody from a second source third-party supplier. We are required to make a minimum annual purchase. The anti-CD30 monoclonal antibody is purchased by us based upon a rolling forecast. The supply agreement will continue until 2025 with an automatic one-year term extension unless either party provides written termination notice to the other party. Either party has the right to terminate the supply agreement if the other party materially breaches its obligations thereunder.

Millipore Sigma. In 2010, we entered into a commercial supply agreement with Sigma Aldrich Fine Chemicals, or SAFC, which was subsequently acquired by Millipore Sigma, an affiliate of Merck KGaA. Under this agreement, Millipore Sigma manufactures commercial quantities of the drug linker that is a component of ADCETRIS. Under terms of the supply agreement, we may purchase a portion of our required drug linker from a second source third-party supplier. We are required to make a minimum annual purchase. The drug linker is purchased by us based upon a rolling forecast. The supply agreement will continue until 2029 with automatic term extension unless either party provides written notice of termination to the other party. Either party has the right to terminate the supply agreement if the other party materially breaches its obligations thereunder.

PADCEV

Under the terms of our collaboration and commercialization agreements with Astellas, we rely on Astellas to provide commercial and clinical supply of PADCEV. For the foreseeable future, we expect to continue to rely on Astellas and other third parties to produce, store and distribute sufficient quantities of PADCEV for commercial sale and for use in our clinical trials. We believe that the existing supplies of PADCEV and Astellas' contract manufacturing relationships will be sufficient to accommodate current commercial and clinical needs. However, we or Astellas may need to obtain additional manufacturing arrangements or increase manufacturing capability to meet potential future commercial needs with respect to PADCEV, which could require additional capital investment by us or cause us potential delays if Astellas or we encounter challenges in negotiating commercially reasonable arrangements with these manufacturers. In particular, we are responsible for establishing a second source supply chain for PADCEV, whether through internal or third party sources.

TUKYSA

With respect to TUKYSA, we rely on multiple contract manufacturers and other third parties to perform manufacturing services for us including Sterling Pharma Solutions Limited, or Sterling, for production of the starting materials for TUKYSA, Esteve Quimica, S.A., or Esteve to produce the active pharmaceutical ingredient, Hovione to complete spray drying and Corden Plankstadt to produce the tablets for TUKYSA. In 2020, we entered into commercial supply agreements with each of Sterling, Esteve Quimica and Corden, and are in the process of negotiating a commercial supply agreement with Hovione. For the foreseeable future, we expect to continue to rely on contract manufacturers and other third parties to produce and store sufficient quantities of TUKYSA. We have limited prior experience as an organization manufacturing TUKYSA and small molecule drug products generally, and we have relatively new working relationships with many of the third party manufacturers involved in TUKYSA manufacture. While we believe that the existing supplies of TUKYSA will be sufficient to accommodate current clinical and forecasted commercial needs at this time, we expect that we will need to put in place additional manufacturing arrangements or expand our current manufacturing arrangements with third-party manufacturers to meet potential future commercial needs and while we are currently negotiating those arrangements, we cannot assure you that we can enter into such arrangements on commercially reasonable terms or at all.

Sterling. We have a commercial supply agreement with Sterling to manufacture starting materials for TUKYSA. The agreement provides that we will purchase starting materials pursuant to rolling forecasts and will purchase a minimum percentage of our requirements for the starting materials from Sterling. The agreement will remain in effect until 2025, after which it will continue automatically for up to two additional years subject to termination by either party giving written notice to the other party. Either party has the right to terminate the agreement if the other party commits any breach of the agreement and does not remedy, make a bona fide attempt to remedy or enter into negotiations to resolve, the breach after notice to do so, if capable of remedy.

Esteve Quimica. Our commercial supply agreement with Esteve provides that we will order the active pharmaceutical agreement for TUKYSA pursuant to rolling forecasts. The agreement will remain in effect until 2025, after which it will automatically renew subject to termination by us by giving written notice to Esteve. Either party has the right to terminate the agreement if the other party fails to cure a material breach.

Corden. We have a commercial supply agreement with Corden to produce TUKYSA tablets. The agreement provides that we will order pursuant to rolling forecasts and will purchase a minimum percentage of our requirements from Corden. The agreement will remain in effect until 2025, after which it will be renewed if not terminated with written notice prior to the expiration of the term. Either party has the right to terminate the agreement if the other party commits a breach and does not cure or commence and diligently continue actions to cure such default.

Product Candidates

For the clinical supply of our product candidates, we rely on multiple contract manufacturers and other third parties to perform manufacturing services for us. In 2017, we acquired a biologics manufacturing facility located in Bothell, Washington. While we use the facility to support our clinical supply needs, for the foreseeable future, we expect to continue to rely on contract manufacturers for much of the supply of our product candidates for our clinical trials. With respect to tisotumab vedotin, we currently rely on drug product supply provided by Genmab and have little control over their supply chains or the contract manufacturers Genmab utilizes. For the near-term, we expect to continue to rely on Genmab for manufacturing of clinical supplies of tisotumab vedotin. Under the commercialization agreement we entered into with Genmab in October 2020, we will be responsible for overseeing the clinical and commercial manufacturing supply chain of tisotumab vedotin following a transition period. We will need to obtain appropriate manufacturing arrangements and increase manufacturing capability to meet potential future commercial needs, and could experience potential delays if we encounter challenges in negotiating commercially reasonable arrangements with manufacturers or in transitioning oversight of the manufacturing process from Genmab to us.

Commercial Operations

We have allocated commercial resources, including sales, marketing, supply chain management and reimbursement capabilities, to commercialize ADCETRIS and TUKYSA in the U.S. and Canada, and PADCEV in the U.S. We believe the U.S. market for ADCETRIS, PADCEV, and TUKYSA in their approved indications, and Canadian market for ADCETRIS and TUKYSA in their approved indications, are addressable with a targeted sales and marketing organization. We intend to continue promoting our products in the U.S. and Canada for these and any additional indications we may obtain in the future. Takeda has commercial rights for ADCETRIS in the rest of the world. Takeda has received marketing authorizations by regulatory authorities for ADCETRIS in more than 75 countries outside North America, and Takeda continues to pursue marketing authorizations in other countries.

In the U.S., we sell ADCETRIS, PADCEV, and TUKYSA through a limited number of specialty distributors. Three of our major distributors, together with entities under their common control—AmerisourceBergen Corporation, Cardinal Health, Inc., and McKesson Corporation—each accounted for 10% or more of our total net product sales in 2020, 2019 and 2018. We also sell TUKYSA to a limited number of specialty pharmacies.

Health care providers purchase ADCETRIS, PADCEV, and TUKYSA through these specialty distributors and the product is drop shipped directly to the health care provider. ADCETRIS and PADCEV are infused products and generally shipped directly to health care providers and facilities for administration to patients. TUKYSA is an oral product ordered by prescription and typically dispensed to patients by the network specialty pharmacies, at physician in-office dispensing sites, or by hospital/Integrated Delivery Network pharmacies.

In Europe, we have allocated commercial resources, including sales, marketing, supply chain management and reimbursement capabilities, to support the anticipated TUKYSA commercial launches in Europe, subject to obtaining the required regulatory and pricing and reimbursement approvals.

Human Capital Resources

As of December 31, 2020, we had 2,092 employees. Of these employees, 1,246 were engaged in or support research, development and clinical activities, 382 were in administrative and business related positions, and 464 were in sales and marketing. We consider our employee relations to be good.

Diversity, Equity and Inclusion

We believe that fostering diversity, equity, and inclusion is a key element to discovering, developing, and bringing transformative therapies to patients with cancer. As of the end of 2020, 57% of our global workforce and 37% of our leadership (at the executive director level and above) were female. In addition, as of the end of 2020, 33% of our U.S. workforce and 36% of our U.S. leadership (at the executive director level and above) were racially or ethnically diverse. We strive to build a workforce representative of the people we serve and to nurture an inclusive culture where all voices are welcomed, heard, and respected. In 2020, we adopted additional initiatives to further build our capacity to meet our diversity, equity and inclusion goals.

Recruiting and Retention

We believe that we have been successful in attracting and retaining talented personnel to support our expanding business, though competition for personnel in our industry is intense. We monitor recruiting efforts using a variety of metrics such as internal placement rates, cycle times, cost per hire, information on the retention of business critical hires (such as medical directors and executives), and the percentage of budgeted openings filled on time and on budget. We also track voluntary and involuntary turnover rates for the company as a whole, for business-critical talent and by gender, race or ethnicity, time in role and job level.

Compensation and Benefits

We offer competitive pay and benefits designed to attract and retain exceptional talent and drive company performance. In setting appropriate compensation levels, we look at the average base pay rate for each position based on market data. At the time of our last annual compensation review, effective February 2020, for regular employees who were eligible for a pay increase, the average ratio of base pay to this market rate was 100%. We also offer an annual cash incentive program, a sales incentive program and long-term equity incentive plans designed to assist in attracting, retaining and motivating employees and promoting the creation of long-term value for stockholders.

Our standard employee benefits in the U.S. include paid and unpaid leaves, medical, dental and vision insurance coverage, a 401(k) plan, short- and long-term disability, life insurance, flexible spending accounts and an employee stock purchase plan. We also offer a variety of voluntary benefits that allow employees to select options that meet their needs, including telehealth, an employee assistance program, backup childcare, adoption assistance, a travel solution for nursing mothers, education assistance, fitness reimbursements, and wellness programs. We benchmark our benefits program against others in our industry on an annual basis. In addition, in 2020, we conducted an anonymous survey of U.S. employees focused on employee engagement and satisfaction with our total rewards programs.

Succession Planning and Leadership Development

We establish retention plans for our executives and other business-critical talent and review their total compensation and unvested equity annually. Succession, development, and retention plans for our executive officers are reviewed at the Board level. In addition, we hold company-wide talent-planning reviews both at the executive and departmental levels. To help accelerate the development of leaders across the company, we have established the Seagen Leadership Academy, a program that provides training, leadership opportunities, mentorship and support to high-potential talent at the director level and above.

COVID-19

We are continuing to closely monitor the impact of the evolving effects of the COVID-19 pandemic on our business. We have established a cross-functional COVID-19 working group, which meets periodically to discuss policies and protocols, strategic planning, business continuity, and other matters relating to the pandemic. We have made proactive efforts designed to protect the health and safety of our workforce, patients, and healthcare professionals, and to continue our business operations so we can advance our goal of bringing important medicines to patients. As part of these efforts, we instituted a mandatory work-from-home policy for employees who can perform their jobs offsite.

We are continuing essential research, manufacturing, and laboratory activities onsite and maintain a number of additional precautionary measures designed to protect our onsite employees. These measures include temperature checks, screening protocols, masks, social distancing, contact tracing, and making testing available. We also monitor the progress of our essential onsite activities for impacts relating to the COVID-19 pandemic.

Our field-based personnel have paused most in-person customer interactions in healthcare settings and have been using primarily electronic communications to support healthcare professionals and patients. They are engaging in limited in-person interactions where state and local laws and regulations allow, the institution or office is accepting in-person interactions and our field-based personnel are comfortable engaging in-person with healthcare providers.

We believe that the measures we have implemented are appropriate and are helping to reduce transmission of COVID-19, and we will continue to monitor conditions and related guidance from governmental authorities and adjust our activities as appropriate.

Corporate Information

We were incorporated in Delaware on July 15, 1997, as Seattle Genetics, Inc. In October 2020, we changed our corporate name from Seattle Genetics, Inc. to Seagen Inc., reflecting the global expansion of our operations. Our principal executive offices are located at 21823 30th Drive SE, Bothell, Washington 98021. Our telephone number is (425) 527-4000, and our website address is *www.seagen.com*. Seagen®, ADCETRIS®, PADCEV®, and TUKYSA® are our registered trademarks in the United States. All other trademarks, tradenames and service marks included in this Annual Report on Form 10-K are the property of their respective owners.

We file electronically with the Securities and Exchange Commission, or SEC, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934. We make available on our website at www.seagen.com, free of charge, through a hyperlink on our website, copies of these reports, as soon as reasonably practicable after electronically filing such reports with, or furnishing them to, the SEC. Information found on, or accessible through, our website is not part of, and is not incorporated into, this Annual Report on Form 10-K. In addition, the SEC maintains a website at www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

Item 1A. Risk Factors

You should carefully consider the following risk factors, in addition to the other information contained in this Annual Report on Form 10-K, including our consolidated financial statements and related notes. If any of the events described in the following risk factors occurs, our business, operating results and financial condition could be seriously harmed. This Annual Report on Form 10-K also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of factors that are described below and elsewhere in this Annual Report on Form 10-K.

Risks Related to Our Products, Product Candidates and Research and Development

Our success depends on our ability to effectively commercialize our products. If we and our collaborators are unable to effectively commercialize our products and to expand their utilization, our ability to generate significant revenue and our prospects for profitability will be adversely affected.

Our three marketed products are ADCETRIS®, or brentuximab vedotin, PADCEV®, or enfortumab vedotin-ejfv, which received accelerated approval from the U.S. Food and Drug Administration, or FDA, in December 2019, and TUKYSA®, or tucatinib, which received approval from the FDA in April 2020. Our ability to generate revenue from product sales and our prospects for profitability are substantially dependent on our and our collaborators' ability to effectively commercialize ADCETRIS, PADCEV and TUKYSA and expand their utilization. We may not be able to fully realize the commercial potential of our products, or commercial sales of our products may be lower than our projections, for a number of reasons, including:

- we and our collaborators may be unable to effectively commercialize our products, including in any new markets or in any new indications for which we receive marketing approval;
- we may not be able to establish or demonstrate in the medical community the safety, efficacy or value of our products and their potential advantages compared to existing and future therapeutics in their approved indications, including, with respect to ADCETRIS, in the newly diagnosed, previously untreated Stage III and IV classical Hodgkin lymphoma indication, or the frontline Hodgkin lymphoma indication;
- we and our collaborators may not be able to obtain and maintain regulatory and other required governmental approvals to market our products for their currently approved indications in any additional territories or for any additional indications, including any additional approvals for PADCEV or TUKYSA, which would limit the sales and commercial potential of the applicable product;
- new competitive therapies in ADCETRIS' approved indications, including immuno-oncology agents such as PD-1 inhibitors (e.g., pembrolizumab and nivolumab) and other novel agents (e.g., mogamulizumab), in PADCEV's approved indication, including antibody drug conjugates (e.g., sacituzumab govitecan) and other targeted agents (e.g., erdafitinib for patients with select fibroblast growth factor receptor, or FGFR, genetic alterations), and in TUKYSA's approved indication, including HER2-targeting agents (e.g., fam-trastuzumab deruxtecan-nxki, neratinib, margetuximab and SYD985), have been approved by regulatory authorities or may be submitted in the near term to regulatory authorities for approval, and these competitive products could negatively impact commercial sales of ADCETRIS, PADCEV or TUKYSA, respectively;
- there may be changes to the labeling for our products, including ADCETRIS, PADCEV or TUKYSA, that further restrict how we market and sell our products, including as a result of data collected from any of the clinical trials that we and our collaborators are conducting or may in the future conduct for our products, or from investigator-sponsored studies of our products, and/or as a result of the use of our products in their approved indications;
- the estimated incidence rate of new patients or the duration of therapy in the approved indications for our products may be lower than our projections;
- there may continue to be adverse results or events reported in connection with the use of our products or product candidates, including in any of the clinical trials that we or our collaborators are conducting, or may conduct in the future, for our products or product candidates;

- the negative impacts to our commercialization efforts, and those of our collaborators, resulting from the risks and evolving effects of the COVID-19 pandemic may increase or become more severe;
- in the case of PADCEV, our joint commercialization efforts in the U.S. under our collaboration with an affiliate of Astellas Pharma Inc., or Astellas, may be unsuccessful or we may encounter challenges in joint decision making and joint execution that adversely affect PADCEV product sales;
- our products may be impacted by adverse reimbursement and coverage policies from government and private payors such as Medicare, Medicaid, insurance companies, health maintenance organizations and other plan administrators, or may be subject to pricing pressures enacted by industry organizations or state and federal governments, including as a result of increased scrutiny over pharmaceutical pricing or otherwise;
- the relative price of our products may be higher than alternative treatment options, and therefore their reimbursement may be limited by private and governmental insurers;
- physicians may be reluctant to prescribe our products due to side effects associated with their use or until longer term efficacy and safety data exist;
- there may be changed or increased regulatory restrictions;
- we may not have adequate financial or other resources to effectively commercialize our products; and
- we may not be able to obtain adequate commercial supplies of our products to meet demand or at an acceptable cost.

In addition, the success of our product collaborations and the activities of our collaborators will significantly impact the development and commercialization of our products. We cannot control the amount and timing of resources that our collaborators dedicate to the development and commercialization of ADCETRIS, PADCEV or TUKYSA, or to their marketing and distribution. Our ability to generate royalty revenues from ADCETRIS product sales by Takeda Pharmaceutical Company Limited, or Takeda, and TUKYSA product sales by our collaborator, a subsidiary of Merck & Co., Inc., or Merck, depends on their respective abilities to obtain regulatory approvals for ADCETRIS and TUKYSA in their territories, and to achieve market acceptance of, and to otherwise effectively market, ADCETRIS and TUKYSA in their territories. Our ability to generate revenues from PADCEV product sales in the U.S. and in Astellas' territories depends on our and Astellas' ability to effectively jointly commercialize PADCEV in the U.S, and on Astellas' ability to obtain regulatory approvals for, achieve market acceptance of, and otherwise effectively market, PADCEV in Astellas' territories. Moreover, international sales of our products could be adversely affected by the imposition of governmental controls, political and economic instability, trade restrictions or barriers and changes in tariffs, global trade and political tensions, the evolving effects of the COVID-19 pandemic or otherwise.

We are closely evaluating the impacts of the evolving effects of the COVID-19 pandemic on our ability and the ability of our collaborators to effectively market, sell and distribute our products and to develop our products and product candidates. While our field-based personnel are engaging in limited in-person interactions, they are primarily using electronic communication, such as emails, phone calls and video conferences. Many healthcare professionals that we normally call on are working a greater proportion of their working schedule from home and are facing additional demands on their time during the ongoing COVID-19 pandemic. We are experiencing increased competition for virtual appointments with healthcare professionals and a significant reduction in the number of interactions our sales personnel are having with physicians. We expect the different quality of electronic interactions as compared with in-person interactions, as well as the reduced quantity of interactions during the COVID-19 pandemic, to reduce the effectiveness of our sales personnel, as well as those of our collaborators, which could negatively affect our product sales and those of our collaborators, as well as physician awareness of our products. With respect to PADCEV and TUKYSA specifically, we have not launched a product using primarily virtual communication channels in the past and cannot predict the effects that this approach will ultimately have on demand for PADCEV or TUKYSA. However, we believe that the need to conduct these activities virtually is negatively impacting our ability to connect with key customers, including those familiar with competitive products, and our ability to conduct payor engagements. We face a number of challenges that will limit our ability to fully resume in-person interactions for the foreseeable future, including increasing COVID-19 infection rates in many states, the potential for more severe outbreaks, the need to navigate varying restrictions for entering healthcare facilities and employee childcare obligations during virtual school sessions. In addition, the effects of

the COVID-19 pandemic continue to evolve rapidly, and we may subsequently be forced to, or subsequently determine that we should, resume a more restrictive remote work model, whether as a result of further spikes or surges in COVID-19 infection or hospitalization rates or otherwise. Moreover, the long-term effects of the COVID-19 pandemic are also unknown and it is possible that following the pandemic, healthcare institutions could alter their policies with respect to in person visits by pharmaceutical company representatives. COVID-19 related restrictions could also present product distribution challenges as we utilize recently-initiated distribution channels for TUKYSA. We also expect that the conversion of medical conferences to a virtual format may reduce our ability to effectively disseminate scientific information about our products, which may result in decreased physician awareness of our products, their approved indications and their efficacy and safety. The evolving effects of the COVID-19 pandemic may also negatively affect our product sales due to challenges in patient access to healthcare settings, significant increases in unemployment and the resulting loss of individual health insurance coverage, and inability to access government healthcare programs due to backlogs, some or all of which appear to be affecting diagnosis rates and may affect side effect management, course of treatment and increase enrollment in our patient support programs. With respect to ADCETRIS specifically, impacts associated with the COVID-19 pandemic appear to be reducing the rate of Hodgkin lymphoma diagnoses, which appears to have contributed to the slower growth of ADCETRIS sales in 2020 as compared to 2019. In addition, we have experienced lower than expected levels of our research and development spending, in part as a result of the COVID-19 pandemic. This includes some delays in clinical trial enrollment as well as reduced travel due to the conversion of medical and scientific meetings to virtual format. While we do not at this time anticipate the need to revise our publicly reported projected clinical milestone dates as a result of the effects of the COVID-19 pandemic, there may be some impacts to our clinical study timelines, which, depending upon the duration and severity of the evolving effects of the COVID-19 pandemic, could ultimately delay data availability. In addition, many of our non-essential on-site research activities are currently significantly reduced as a result of the COVID-19 pandemic, which may negatively impact the number of investigational new drug application, or IND, candidates entering our clinical pipeline in future years. The extent to which the risks and evolving effects of the COVID-19 pandemic impact our business, our ability to generate sales of and revenues from our approved products, and our clinical development and regulatory efforts will depend on future developments that are highly uncertain and cannot be predicted with confidence, such as the ultimate duration and severity of the pandemic, government actions, such as travel restrictions, quarantines and social distancing requirements in the U.S. and in other countries, business closures or business disruptions and the effectiveness of actions taken in the U.S. and in other countries to contain and treat the disease, including the effectiveness and timing of vaccine programs in the U.S. and worldwide.

While we anticipate that sales of ADCETRIS will increase in 2021 as compared to 2020, we have experienced and expect continued impacts associated with the COVID-19 pandemic, which appear to be reducing the rate of Hodgkin lymphoma diagnoses, and an increase in gross-to-net deductions that we believe is due to a shift in the locations where ADCETRIS is administered, which has increased the proportion of ADCETRIS sales through the federal 340B drug discount program. We expect that, going forward, our ability to maintain or continue to grow our ADCETRIS sales, if at all, will depend primarily on our ability to establish or demonstrate to the medical community the value of ADCETRIS and its potential advantages compared to existing and future therapeutics in its approved indications, including in the frontline Hodgkin lymphoma indication, and the extent to which physicians make prescribing decisions with respect to ADCETRIS. Other important factors affecting our ADCETRIS sales include the incidence flow of patients eligible for treatment in ADCETRIS' approved indications, the extent to which coverage and adequate levels of reimbursement for ADCETRIS are available from governments and other third-party payors, the impact of any healthcare reform measures that may be upheld, or adopted in the future, including measures that could result in more rigorous coverage criteria or reduce the price that we receive for ADCETRIS, increasing competition from competing therapies including pembrolizumab in multiple indications, including in the relapsed or refractory classical Hodgkin lymphoma indication, impacts resulting from the evolving effects of the COVID-19 pandemic including lower diagnosis rates, and the potential future approval of ADCETRIS in any additional indications. For these reasons, we cannot assure you that ADCETRIS sales will continue to grow or that we can maintain sales of ADCETRIS at or near current levels. In addition, as a result of these and other factors, our future ADCETRIS product sales can be difficult to accurately predict from period to period.

Our ability to realize the anticipated benefits from our investment in PADCEV is subject to a number of risks and uncertainties, including our and Astellas' ability to successfully jointly market and commercialize PADCEV in the U.S. in its approved indication, the extent to which we and Astellas are able to obtain regulatory approvals of PADCEV in additional indications in the U.S., including in the frontline metastatic urothelial cancer setting, and in territories outside the U.S., our ability and Astellas' ability to successfully comply with rigorous post-marketing requirements, including obtaining the FDA's agreement as to the confirmation of clinical benefit of PADCEV based on the results of the EV-301 clinical trial, the acceptance of PADCEV by the medical community and patients, the extent to which physicians make prescribing decisions with respect to PADCEV, the incidence flow of patients eligible for treatment in PADCEV's approved indication, the duration of therapy for patients receiving PADCEV, the extent to which coverage and adequate levels of reimbursement for PADCEV are available from governments and other third-party payors, the impact of any healthcare reform measures that may be adopted in the future, including measures that could potentially result in more rigorous coverage criteria and additional downward pressure on the price that we receive for PADCEV, potential competition from competing therapies, the impact of conducting launch activities virtually during the COVID-19 pandemic and other impacts resulting from the evolving effects of the COVID-19 pandemic including potential negative impacts of reduced cancer diagnosis rates. In addition, as a result of these and other factors, including the lack of significant historical sales data, PADCEV sales are currently difficult to predict from period to period.

Our ability to realize the anticipated benefits of our investment in TUKYSA is subject to a number of risks and uncertainties, including our and Merck's ability to successfully launch, market and commercialize TUKYSA in our respective territories in its approved indication, the extent to which we and Merck are able to obtain regulatory and other required governmental and pricing and reimbursement approvals of TUKYSA in additional territories, the extent to which we and Merck are able to obtain regulatory approvals of TUKYSA in additional indications, including earlier lines of breast cancer and other HER2-positive cancers, the acceptance of TUKYSA by the medical community and patients, competition from other therapies, our and Merck's ability to accurately predict and supply product demand, the extent to which coverage and reimbursement will be available from governments and other third-party payors, our capacity to effectively commercialize a product outside of the U.S., the impact of conducting launch activities virtually during the COVID-19 pandemic and other impacts resulting from the evolving effects of the COVID-19 pandemic including potential negative impacts of reduced cancer diagnosis rates. In addition, as a result of these and other factors, including the lack of significant historical sales data, TUKYSA sales are currently difficult to predict from period to period.

Our ability to grow our product sales in future periods is also dependent on price increases, and we periodically increase the price of our products. Price increases on our products and negative publicity regarding drug pricing and price increases generally, whether on our products or products distributed by other pharmaceutical companies, could negatively affect market acceptance of, and sales of, our products. In any event, we cannot assure you that price increases we have taken or may take in the future will not in the future negatively affect our product sales.

Our success also depends on our ability to obtain regulatory approvals for our product candidates and for our current products in additional territories, as well as our ability to expand the labeled indications of use for our current products, and, if the requisite approvals are obtained, our ability to successfully launch and commercialize our products in their approved indications. Our inability to do so could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

Neither we nor our collaborators are permitted to market our product candidates in the U.S. or other countries until we obtain marketing approvals from the FDA and other applicable regulatory authorities, and we or our collaborators may never receive regulatory approval for the commercial sale of any of our product candidates. Likewise, we and our collaborators are required to obtain marketing approvals from applicable regulatory authorities in order to market our products in additional territories and to expand the labeled indications of use for our current products.

We have made and are continuing to make significant investments in a number of product candidates, including tisotumab vedotin and ladiratuzumab vedotin, and in seeking additional regulatory approvals for ADCETRIS, PADCEV and TUKYSA. However, obtaining marketing approval is a lengthy, expensive and uncertain process, approval is never assured, and we have limited experience in preparing and submitting the applications necessary to gain regulatory approvals. As an organization, we have limited experience applying for regulatory approvals in jurisdictions outside the U.S. and Canada. Further, the FDA and other regulatory agencies have substantial discretion in the approval process and determining when or whether regulatory approval will be obtained for our products and product candidates, including any regulatory approvals for ADCETRIS, PADCEV or TUKYSA in additional indications or in additional territories. In this regard, even if we believe the data collected from preclinical studies or clinical trials of our products and product candidates are promising, the FDA or any other regulatory authority or their respective advisors may disagree with our interpretations of this data. For example, while we submitted a regulatory application for TUKYSA to the U.K. Medicines and Healthcare Product Regulatory Authority, or MHRA, the regulatory application we submitted may not be approved in a timely manner or at all. In addition, in September 2020, we and Astellas reported that the EV-301 trial met its primary endpoint of overall survival, and, in October 2020, we and Astellas announced positive topline results from the second cohort of patients in the EV-201 trial. Although we and Astellas plan to submit a supplemental BLA to the FDA based on the EV-301 trial as the confirmatory trial following PADCEV's accelerated approval by the FDA and the EV-301 trial is also intended to support global regulatory submissions, and although we plan to submit an sBLA based on the results of the second cohort of the EV-201 trial, regulatory authorities, including the FDA, or their advisors may disagree with our interpretation of the data from these trials. The FDA may not convert PADCEV's accelerated approval to regular approval in the U.S., and regulatory authorities may not accept or approve any other regulatory applications for PADCEV, in a timely manner or at all. In addition, although the FDA granted Breakthrough Therapy designation to PADCEV in combination with pembrolizumab, for treatment of patients with unresectable locally advanced or metastatic urothelial cancer who are unable to receive cisplatin-based chemotherapy in the first-line setting, this Breakthrough Therapy designation does not increase the likelihood that PADCEV will receive marketing approval in this indication or will otherwise receive any additional marketing approvals. Likewise, although we reported positive results from the pivotal phase 2 innovaTV 204 trial and we and Genmab A/S, or Genmab, submitted a Biologics License Application, or BLA, to the FDA seeking accelerated approval for tisotumab vedotin based on the innovaTV 204 trial, we cannot be certain that the data from the innovaTV 204 trial will be sufficient to support accelerated approval. We cannot predict whether the BLA that we and Genmab submitted for tisotumab vedotin will be accepted or approved in a timely manner or at all. We also cannot assure you that any of our product candidates will receive any marketing approvals. In fact, it is possible that none of our product candidates will ever become commercial products. As a result, we may not realize the anticipated benefits of our investments in our product candidates.

Similarly, regulatory agencies may not approve the labeling claims that are necessary or desirable for the successful commercialization of our products in any additional indications or territories, or of any future approved product. Regulatory agencies also may approve a product for fewer or narrower indications than requested, or with a label that includes only subtypes of a particular indication rather than a more general disease classification. In addition, our products and product candidates could take a significantly longer time to gain new or initial regulatory approvals than we expect or may never gain new or initial regulatory approvals, which could delay or eliminate any potential product revenue from sales of our product candidates or of our products in any additional indications or territories and significantly delay or prevent us from achieving profitability. In this regard, part of our growth strategy is to continue to explore the use of ADCETRIS in different CD30-expressing lymphomas, to seek approval for PADCEV in our territories outside the U.S., and to continue to explore the use of PADCEV and TUKYSA in additional indications. However, we and/or our collaborators may be unable to obtain any regulatory approvals for the commercial sale of any of our products in any additional indications or territories in a timely manner or at all. For example, as part of the Prescription Drug User Fee Act, or PDUFA, the FDA has a goal to review and act on a percentage of all regulatory submissions in a given time frame. However, the FDA does not always meet its PDUFA target action dates, and if the FDA were to fail to meet its PDUFA target action date in the future for any of our future regulatory applications, the commercialization of the affected product candidate, or of the affected product in any additional indications, could be delayed or impaired. In addition, while regulatory authorities have not to date notified us of any delays in their review of our regulatory applications and we have not yet experienced any obvious delays as a result of the effects of the COVID-19 pandemic, it is possible that we could experience delays in the timing of regulatory review and/or our interactions with regulatory authorities due to reduced working hours of governmental employees or by the diversion of authorities' efforts and attention to approval of other therapeutics or other activities related to COVID-19, which could delay any approval

decisions with respect to our or Merck's regulatory applications for TUKYSA outside of the U.S., or our progress in advancing our development efforts with respect to other products and product candidates. Our interactions with regulatory authorities in other jurisdictions and across multiple products and product candidates continue but we cannot rule out the possibility of negative impacts on such interactions in the future as the effects of the pandemic continue to evolve.

Even if approved for commercial sale, our ability to realize the anticipated benefits from our investments in our product candidates and our efforts to expand the labeled indications of use and territories for our current products is subject to a number of risks and uncertainties, including our and our collaborators' ability to successfully launch, market and commercialize our products, our reliance, in the case of PADCEV and tisotumab vedotin, on Astellas and Genmab, respectively, to effectively jointly launch and commercialize PADCEV and any potential future approved tisotumab vedotin product with us, our and our collaborators' ability to successfully comply with rigorous post-marketing requirements, including confirmation of clinical benefit of PADCEV based on the results of the Phase 3 confirmatory trial, EV-301, that we and Astellas are required to complete as a result of the accelerated approval of PADCEV by the FDA, the acceptance of our approved products by the medical community and patients, and the extent to which coverage and reimbursement for our products will be available from government and health administration authorities, private health insurers and other third-party payors. For example, although PADCEV was launched in the U.S. in December 2019 and although TUKYSA was launched in the U.S. in April 2020, the launch and commercialization of these products are at an early stage and may not be successful. In addition, the impacts of the evolving effects of the COVID-19 pandemic, including potential negative impacts of reduced cancer diagnosis rates, could limit our ability to continue to effectively launch PADCEV and TUKYSA and restrictions on in-person interactions with healthcare providers will likely negatively impact our ability to connect with key customers, including those familiar with competitive products, and our ability to conduct payor engagements. If we are unable to successfully continue to launch and commercialize PADCEV jointly with Astellas in the U.S., or to successfully continue to launch and commercialize TUKYSA in the U.S., our growth prospects and our prospects for profitability would be adversely affected. Likewise, although TUKYSA received regulatory approvals in the EU and certain other countries outside the U.S. and Canada and we have submitted a regulatory application for TUKYSA to the MHRA, we have no prior experience as an organization launching or commercializing a product outside the U.S. and Canada, which could adversely affect our ability to maximize the commercial potential of TUKYSA. Further, while our TUKYSA collaboration with Merck is intended to accelerate global availability of TUKYSA, we are wholly reliant on Merck's ability to effectively launch and commercialize TUKYSA in territories outside of the U.S., Canada and Europe, and we have limited control of Merck's actions. In addition, in many countries, the proposed pricing for a drug must be approved before it may be lawfully marketed, and in some cases there are additional individual country requirements, which will delay entry of a product into a market or, if pricing is not approved, will prevent us from selling a product in a country where we have received regulatory approval. The launch of a newly approved product or of an existing product in a new market, including the launch of TUKYSA in markets where TUKYSA has obtained regulatory approval outside the U.S. and any other markets where it may receive regulatory approval, if any, could be delayed due to a variety of factors, including supply constraints, delays in arranging a commercial infrastructure, delays in obtaining pricing and reimbursement approvals or other factors, any of which risks could be heightened by the risks and the evolving effects of the COVID-19 pandemic. If we or Merck experience delays or unforeseen difficulties due to any of these factors, planned launches in the countries in question would be delayed, which could negatively impact anticipated revenue from TUKYSA. In addition, if we or Merck are unable to obtain favorable pricing and reimbursement approvals in territories that represent significant potential markets, including the EU, our anticipated revenue from and growth prospects for TUKYSA in Europe and other regions could be negatively affected.

If we or our collaborators are unable to obtain and maintain necessary or desirable regulatory approvals for our products and product candidates, including for ADCETRIS, PADCEV and TUKYSA, in a timely manner, if at all, if the FDA or other regulatory authorities do not approve product labeling that is necessary or desirable for the successful commercialization of an approved product, or if sales of an approved product do not reach the levels we expect, then our anticipated revenue from our products and product candidates and our prospects for profitability would be adversely affected, which could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

Reports of adverse events or safety concerns involving our products or product candidates could delay or prevent us from obtaining or maintaining regulatory approvals or could negatively impact sales of our products or the prospects for our product candidates.

Reports of adverse events or safety concerns involving our products could interrupt, delay or halt clinical trials of our products, including the post-approval confirmatory studies that regulatory agencies have required us or our collaborators to complete. In addition, reports of adverse events or safety concerns involving our products could result in regulatory authorities requiring that we update the applicable product's prescribing information, or limiting, denying or withdrawing approval of our products for any or all indications, including previously approved indications. There are no assurances that patients receiving our products will not experience serious adverse events, including fatal events, in the future, whether the serious adverse events are disclosed in the prescribing information or are newly reported. Further, there are no assurances that patients receiving our products with co-morbid diseases not previously studied, such as autoimmune diseases, will not experience new or different serious adverse events in the future.

The prescribing information for ADCETRIS includes warnings and precautions for various toxicities, as well as a boxed warning related to the risk that JC virus infection resulting in progressive multifocal leukoencephalopathy and death can occur in patients receiving ADCETRIS. The prescribing information for PADCEV and TUKYSA also includes warnings and precautions for various toxicities and reactions, including certain fatal reactions. We may be required to update the prescribing information for our products, including boxed warnings, limitations of use, contraindications, warnings and precautions, and adverse reactions, based on reports of adverse events or safety concerns, or implement a Risk Evaluation and Mitigation Strategy, or REMS. Side effects and toxicities associated with our products could affect the willingness of physicians to prescribe, and patients to utilize, our products and thus harm commercial sales of our products. Implementation of a REMS could advantage products that compete with ours or make it more difficult or expensive for us to distribute our products.

Likewise, reports of adverse events or safety concerns involving our product candidates could interrupt, delay or halt clinical trials of our product candidates, or could result in our or our collaborators' inability to obtain regulatory approvals of our product candidates. Although we announced positive results from the innovaTV 204 trial, data continues to be generated in this trial and in other tisotumab vedotin trials. There may still be important new or evolving facts about the safety, efficacy, and risk versus benefit of each of our product candidates, including tisotumab vedotin, which may negatively impact our ability to develop and commercialize these product candidates. For example, in response to prior safety events observed in our clinical trials of PADCEV and tisotumab vedotin, including serious side effects and patient deaths, we have in the past, and may in the future, institute additional precautionary safety measures such as dosing caps and delays, enhanced monitoring for side effects, and modified patient inclusion and exclusion criteria. Additional and/or unexpected safety events could be observed in these or other trials that could delay or prevent us from advancing the clinical development of, or obtaining regulatory approvals for, our products and product candidates or require us to alter the approved labeling of our products, and may adversely affect our business, results of operations and prospects.

Concerns regarding the safety of our products or product candidates as a result of undesirable side effects identified during clinical testing or otherwise could cause the FDA to order us to cease further development or commercialization of our products or the product candidates. Undesirable side effects caused by our products or product candidates could also result in denial of regulatory approval by the FDA or other regulatory authorities for any or all targeted indications, the requirement of additional trials, implementation of a REMS or the inclusion of unfavorable information in our product labeling, and in turn delay or prevent us from commercializing the applicable product or product candidate. In addition, actual or potential drug-related side effects could affect patient recruitment or the ability of enrolled patients to complete a trial for our products or product candidates or result in potential product liability claims. Any of these events could prevent us from developing or commercializing the applicable product or product candidate, and could significantly harm our business, results of operations and prospects.

Clinical trials are expensive and time consuming, may take longer than we expect or may not be completed at all, and their outcome is uncertain.

We and our collaborators are currently conducting multiple clinical trials for our products and product candidates and plan to commence additional trials of our products and product candidates in the future. Many of these trials, including phase 3 and pivotal phase 2 trials, were initiated based on only limited clinical data and we cannot be certain that the design or conduct of, or data collected from, these trials will be sufficient to support FDA or any regulatory approvals outside the U.S.

Each of our clinical trials requires the investment of substantial expense and time and the outcome of these trials is uncertain. Later-stage clinical trials may differ in significant ways from earlier stage clinical trials and may have different outcomes. Differences in earlier- and later-stage clinical trials may include changes to inclusion and exclusion criteria, efficacy endpoints and statistical design. In this regard, despite the positive initial results we and Astellas reported from the EV-103 trial, we cannot be certain that PADCEV will demonstrate sufficient efficacy in other trials, including in the EV-302 trial, other cohorts of the EV-103 trial or any future trials or cohorts. Moreover, despite the positive initial data from the EV-103 trial, PADCEV may not demonstrate sufficient efficacy in any other clinical trials in a frontline setting and may never be approved for use in any frontline setting, which would significantly delay or prevent us from achieving profitability. Likewise, despite the positive results we reported from the HER2CLIMB trial, we cannot be certain that TUKYSA will demonstrate sufficient efficacy in other trials, including the HER2CLIMB-02 trial, and, despite the positive results we reported from the innovaTV 204 trial, we cannot be certain that tisotumab vedotin will demonstrate sufficient efficacy in other trials or will ever be approved for commercial sale. In addition, there may still be important facts about the safety, efficacy, and risk versus benefit of PADCEV, TUKYSA and tisotumab vedotin that are not known to us at this time which may negatively impact our ability to develop and commercialize PADCEV, TUKYSA or tisotumab vedotin as single agents or in combination with other agents. In this regard, in the first cohort of the EV-201 trial, there was one death due to interstitial lung disease, which occurred outside the safety-reporting period of the trial and was confounded by prolonged high-dose steroid use and suspected pneumonia, and in the initial results of the EV-103 trial, there was one death deemed to be treatment-related by the investigator, attributed to multiple organ dysfunction syndrome. There was also one death deemed to be treatment-related by the investigator in the innovaTV 204 trial. In addition, in response to prior safety events observed in our clinical trials of PADCEV and tisotumab vedotin, including serious side effects and patient deaths, we have in the past, and may in the future, institute additional precautionary safety measures such as dosing caps and delays, enhanced monitoring for side effects, and modified patient inclusion and exclusion criteria. Additional and/or unexpected safety events or our failure to generate additional efficacy data in our clinical trials that support registration could significantly impact the value of PADCEV, TUKYSA and tisotumab vedotin to our business. Many companies in the pharmaceutical and biotechnology industries, including us, have suffered significant setbacks in late-stage clinical trials after achieving encouraging or positive results in early-stage development. We cannot be certain that we will not face similar setbacks in our ongoing or planned clinical trials, including in the ongoing pivotal trials for PADCEV and TUKYSA. If we or our collaborators fail to produce positive results in our ongoing or planned clinical trials of PADCEV, TUKYSA, tisotumab vedotin or any of our other product candidates, the development timeline and regulatory approval and commercialization prospects for PADCEV, TUKYSA, tisotumab vedotin and our other product candidates, and, correspondingly, our business, financial condition, results of operations and growth prospects, would be materially adversely affected.

The timing of the commencement, continuation and completion of each of our clinical trials may be subject to delays relating to various causes, including scheduling conflicts with participating clinicians and clinical institutions, difficulties in identifying and enrolling patients who meet trial eligibility criteria, failure of patients to complete the clinical trial, delays in accumulating the required number of clinical events for data analyses, delay or failure to obtain institutional review board, or IRB, approval to conduct a clinical trial at a prospective site, and shortages of available drug supply. In the context of the COVID-19 pandemic, we are working to advance our clinical trial activities, while also actively assessing and seeking to mitigate risks to our patients, partners, employees and clinical trial site personnel. Some of the sites participating in our clinical trials are affected by site closings, reduced capacity or other effects of the COVID-19 pandemic. We are actively monitoring all clinical activities and currently are experiencing impacts to our ability to monitor patients, activate sites, screen and enroll patients, complete site monitoring and manage samples. The extent of the impact of these factors on a particular clinical trial depends on the current stage of activities at a given site, for example, study start up versus post-enrollment, and the impact on a clinical trial depends on the number of impacted sites participating in that clinical trial. In addition, we believe that rates of cancer diagnoses are lower than they would otherwise be as a result of the impacts of the COVID-19 pandemic, which may also negatively impact enrollment. While we do not at this time anticipate the need to revise our publicly reported projected clinical milestone dates as a result of the effects of the COVID-19 pandemic, there may be some impacts to our clinical study timelines, which, depending upon the duration and severity of the evolving effects of the COVID-19 pandemic, could ultimately delay data availability. In addition, our ability to recruit and retain principal investigators and site staff could be adversely impacted by the risks of exposure to COVID-19 and by the conversion of medical conferences to virtual format. Further, due to the suspension of data monitoring activities at sites that do not currently allow remote monitoring, as well as impacts on the ability to monitor patients, maintain patient treatment according to the trial protocols and to manage samples, there is also the potential of negative impacts on data quality. While we are actively utilizing digital monitoring measures and other mitigations designed to prevent negative data quality impacts, if there were in fact a negative impact on data quality, we or our collaborators could be required to repeat, extend the duration of, or increase the size of clinical trials, which could significantly delay potential commercialization and require greater expenditures. We expect that similar factors will impact clinical studies operationalized by our collaborators. We cannot at this time fully forecast the scope of impacts that the evolving effects of the COVID-19 pandemic may have on our ability to initiate trial sites, enroll and assess patients, handle the operational aspects of trials such as drug and sample management, run studies in accordance with the protocol and best practices and report trial results.

Additionally, beyond impacts related to the evolving effects of the COVID-19 pandemic, patient enrollment is a function of many factors, including the size of the patient population, the proximity of patients to clinical sites, the eligibility criteria for the trial, the existence of competing clinical trials, perceived side effects and the availability of alternative or new treatments. From time to time we have experienced enrollment-related delays in clinical trials, including in connection with the COVID-19 pandemic, and we will likely continue to experience similar delays in our current and future trials.

Many of our future and ongoing clinical trials are being or will be coordinated or conducted with Takeda, Astellas, Merck, Genmab, Bristol-Myers-Squibb Company, or BMS, and other collaborators, which may delay the commencement or adversely affect the continuation or completion of these trials. In addition, our collaborators have operational control over some of the studies we conduct jointly and we do not have full visibility into these studies run by our collaborators. We also depend on medical institutions to conduct our clinical trials in compliance with Good Clinical Practice, or GCP, and to the extent they fail to enroll patients for our clinical trials, fail to conduct our trials in accordance with GCP, or are delayed for a significant time in achieving full enrollment, whether due to the risks and evolving effects of the COVID-19 pandemic or otherwise, our clinical trials and regulatory filings regarding our products and product candidates may be negatively impacted including possible changes to data, results, or conclusions, increased costs, and delays to regulatory timelines, which may harm our reputation and business. In addition, we conduct clinical trials in countries outside the U.S. which may subject us to further delays and expenses as a result of increased drug shipment costs and additional regulatory requirements, as well as expose us to risks associated with different standards of medical care, and currency transactions insofar as changes in the relative value of the U.S. dollar to the local currency where the trial is being conducted may impact our actual costs. In addition, conducting clinical trials in countries that are experiencing heightened impact from the evolving effects of the COVID-19 pandemic may exacerbate these risks.

Clinical trials must be conducted in accordance with FDA or other applicable government guidelines and are subject to oversight by the FDA, other governmental agencies, including data protection authorities, the data safety monitoring boards for such trials and the IRBs or Ethics Committees for the institutions in which such trials are being conducted. In addition, clinical trials must be conducted with supplies of our products or product candidates produced under cGMP and other requirements in the country in which the trial is being conducted, and may require large numbers of test patients. We or our collaborators, the FDA, other governmental agencies or the applicable data safety monitoring boards, IRBs and Ethics Committees could delay, suspend, halt or modify our clinical trials of our products or any of our product candidates, for numerous reasons, including:

- ADCETRIS, PADCEV, TUKYSA or the applicable product candidate may have unforeseen safety issues or adverse side effects, including fatalities, or a determination may be made that a clinical trial presents unacceptable health risks;
- deficiencies in the conduct of the clinical trial, including failure to conduct the clinical trial in accordance with regulatory requirements, GCP, clinical protocols or regulations relating to data protection;
- problems, errors or other deficiencies with respect to data collection, data processing and analysis;
- deficiencies in the clinical trial operations or trial sites resulting in the imposition of a clinical hold;
- the time required to determine whether ADCETRIS, PADCEV, TUKYSA or the applicable product candidate is effective may be longer than expected;
- fatalities or other adverse events arising during a clinical trial due to medical problems that may not be related to clinical trial treatments;
- ADCETRIS, PADCEV, TUKYSA or the applicable product candidate may not appear to be more effective than current therapies;
- the quality or stability of ADCETRIS, PADCEV, TUKYSA or the applicable product candidate may fall below acceptable standards;
- our inability and the inability of our collaborators to produce or obtain sufficient quantities of ADCETRIS, PADCEV, TUKYSA or the applicable product candidate to complete the trials;
- our inability and the inability of our collaborators to reach agreement on acceptable terms with prospective trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different trial sites;
- our inability and the inability of our collaborators to obtain IRB or Ethics Committee approval to conduct a clinical trial at a prospective site;
- changes in governmental regulations or administrative actions that adversely affect our ability and the ability of our collaborators to continue to conduct or to complete clinical trials;
- lack of adequate funding to continue the clinical trial, including the incurrence of unforeseen costs due to enrollment delays, requirements to conduct additional trials and studies and increased expenses associated with the services of our clinical research organizations and other third parties;
- our inability and the inability of our collaborators to recruit and enroll patients to participate in clinical trials for reasons including competition from other clinical trial programs for the same or similar indications;
- our inability and the inability of our collaborators to retain patients who have initiated a clinical trial but may be prone to withdraw due to side effects from the therapy, lack of efficacy or personal issues, or who are lost to further follow-up;

- our inability and the inability of our collaborators to ensure adequate statistical power to detect statistically significant treatment effects, whether through our inability to enroll or retain patients in trials or because the specified number of events designated for a completed trial have not occurred; or
- the risks and evolving effects of the COVID-19 pandemic.

In addition, we or our collaborators may experience significant setbacks in advanced clinical trials, even after promising results in earlier trials, including unexpected adverse events that may occur when our product candidates are combined with other therapies.

Negative or inconclusive clinical trial results could adversely affect our ability and the ability of our collaborators to obtain regulatory approvals of our product candidates, including tisotumab vedotin, or to market ADCETRIS, PADCEV or TUKYSA and/or expand ADCETRIS, PADCEV or TUKYSA into additional indications and territories. In addition, clinical trial results are frequently susceptible to varying interpretations that may delay, limit or prevent regulatory approvals. For example, although we reported positive results from the HER2CLIMB trial and submitted a regulatory application for TUKYSA to the MHRA, the regulatory application we submitted may not be approved in a timely manner or at all. Similarly, we and Astellas reported that the EV-301 trial met its primary endpoint of overall survival and reported positive topline results from the second cohort of patients in the EV-201 trial. However, despite these results and although we and Astellas plan to submit a supplemental BLA to the FDA based on the EV-301 trial as the confirmatory trial following PADCEV's accelerated approval by the FDA and EV-301 is also intended to support global regulatory submissions, and although we and Astellas plan to submit an sBLA to the FDA based on the results of the second cohort of the EV-201 trial, regulatory authorities, including the FDA, or their advisors may disagree with our interpretation of the data from these trials. As a result, the FDA may not convert PADCEV's accelerated approval to regular approval in the U.S., and regulatory authorities may not accept or approve any other regulatory applications for PADCEV, in a timely manner or at all. Further, although we announced positive results from the innovaTV 204 trial and we and Genmab submitted a BLA to the FDA seeking accelerated approval for tisotumab vedotin based on the results of the innovaTV 204 trial, the FDA, or its advisors, may disagree with our interpretation of the data from the innovaTV 204 trial and may otherwise determine not to accept or approve the BLA that we and Genmab submitted for tisotumab vedotin in a timely manner or at all. Likewise, although we reported positive results in our ECHELON-2 trial, regulatory agencies outside of the territories where ADCETRIS has been approved in the ECHELON-2 treatment setting, or their advisors, may disagree with Takeda's interpretations of data from the ECHELON-2 trial and may not approve the expansion of the ADCETRIS labeled indications of use to the ECHELON-2 treatment setting. Moreover, adverse medical events during a clinical trial, including patient fatalities, could cause a trial to be redone or terminated, require us to cease development of a product candidate or the further development or commercialization of ADCETRIS, PADCEV or TUKYSA, result in our failure to expand ADCETRIS, PADCEV or TUKYSA into additional indications and territories, adversely affect our ability to market ADCETRIS, PADCEV or TUKYSA, and may result in other negative consequences to us, including the inclusion of unfavorable information in our product labeling. Further, some of our clinical trials are overseen by an independent data monitoring committee, or IDMC, and an IDMC may determine to delay or suspend one or more of these trials due to safety or futility findings based on events occurring during a clinical trial. In addition, we may be required to implement additional risk mitigation measures that could require us to suspend our clinical trials if certain safety events occur.

The successful commercialization of our products and our product candidates will depend on a variety of factors, including the extent to which governmental authorities and health insurers establish adequate coverage and reimbursement levels and pricing policies, and the acceptance of our products by the medical community and patients.

Successful sales of our current and any future approved products will depend, in part, on the extent to which coverage and reimbursement for our products will be available from government and health administration authorities, private health insurers and other third-party payors. To manage healthcare costs, many governments and third-party payors increasingly scrutinize the pricing of new products and require increasing levels of evidence of favorable clinical outcomes and cost-effectiveness before extending coverage. In light of this pricing scrutiny, we cannot be sure that we and our collaborators will achieve and continue to have coverage available for our products and any product candidates that we or our collaborators commercialize and, if available, that the reimbursement rates will be adequate and grant access to all eligible patients. If we or our collaborators are unable to obtain coverage and adequate levels of reimbursement for our current and any future approved products that we or our collaborators commercialize, their marketability will be negatively and materially impacted. For example, we cannot be certain that third-party payors will continue to provide coverage and adequate reimbursement for ADCETRIS in the frontline Hodgkin lymphoma indication based on the relative price and perceived benefit of ADCETRIS as compared to alternative treatment options, which may materially harm our ability to maintain or increase sales of ADCETRIS or may otherwise negatively affect future ADCETRIS sales. Similarly, we cannot be certain that third-party payors will provide coverage and adequate reimbursement for PADCEV or TUKYSA based on their relative price and perceived benefits as compared to alternative treatment options or otherwise, which may materially harm our and our collaborators' ability to successfully commercialize PADCEV and TUKYSA in our respective designated territories. In addition, we have experienced an increase in gross-to-net deductions that we believe is due to a shift in the locations where ADCETRIS is administered, which has increased the proportion of ADCETRIS sales through the federal 340B drug discount program, and we may experience additional shifts from commercial payor coverage to government payor coverage in the U.S., which would further increase gross-to-net deductions.

In many jurisdictions, including in Europe, the proposed pricing for a drug must be approved in an individual country before it may be lawfully marketed, which could delay entry of a product into a market or, if pricing is not approved, may prevent us or our collaborators from selling a product in a country where we or our collaborators have received regulatory approval. In European countries where we have obtained regulatory approval of TUKYSA, we will seek pricing and reimbursement agreements for TUKYSA in accordance with local timelines. As an organization, we did not have any experience applying for pricing and reimbursement approvals in jurisdictions outside the U.S. and Canada prior to our applications with respect to TUKYSA. Further, authorities in Europe have substantial discretion in the pricing and reimbursement approval process and in determining when or whether coverage will be obtained for our products or product candidates, including any approvals for our medicines in initial and additional indications or in additional territories. In addition, in some cases, they may lower the price for a medicine after the price has been established. The launch of TUKYSA outside of the U.S. could be delayed due to a variety of factors, including supply constraints, delays in arranging a commercial infrastructure, delays encountered by our collaborator, Merck, delays in obtaining pricing and reimbursement approvals or other delays related to regulatory requirements. If we or Merck experience delays or unforeseen difficulties due to any of these factors, planned launches in the countries in question would be delayed, which could negatively impact anticipated revenue from TUKYSA. In addition, if we or Merck are unable to obtain favorable pricing and reimbursement approvals in the countries that represent significant potential markets, our anticipated revenue from and growth prospects for TUKYSA in Europe and other regions could be negatively affected.

Eligibility for coverage and reimbursement does not imply that a drug will be paid for in all cases or at a rate that captures the value delivered to patients, payers and the overall healthcare system, allows for continued investment in innovative treatments for cancer patients or that covers our costs, including research, development, manufacture, sale and distribution. In addition, obtaining and maintaining adequate coverage and reimbursement status is time-consuming and costly. Third-party payors may deny coverage and reimbursement status altogether of a given drug product, or cover the product but may also establish prices at levels that are too low to enable us to realize an appropriate return on our investment in product development or limit access to select patient populations reducing revenue potential. Further, in the U.S., there is no uniform policy of coverage and reimbursement among third-party payors. Third-party payors often rely upon Medicare coverage policy and payment limitations in setting their own coverage and reimbursement policies. However, decisions regarding the extent of coverage and amount of reimbursement to be provided is made on a payor-by-payor basis. One payor's determination to provide coverage for a product does not assure that other payors will also provide coverage for the product. Because the rules and regulations regarding coverage and reimbursement change frequently, in some cases at short notice, even when there is favorable coverage and reimbursement, future changes may occur that adversely impact the favorable status.

The unavailability or inadequacy of third-party coverage and reimbursement could have a material adverse effect on the market acceptance of our current and any future approved products and the future revenues we may expect to receive from those products. In addition, we are unable to predict what additional legislation or regulation relating to the healthcare industry or third-party coverage and reimbursement may be upheld or enacted in the future, or what effect such legislation or regulation would have on our business. Continuing negative publicity regarding pharmaceutical pricing practices and ongoing governmental and societal scrutiny create significant uncertainty regarding regulation of the healthcare industry and third-party coverage and reimbursement in the U.S. and other jurisdictions. If healthcare policies or reforms intended to curb healthcare costs are implemented or if we experience negative publicity with respect to pricing of our products or the pricing of pharmaceutical products generally, the prices that we charge for our current and any future approved products may be limited, our revenues from sales of our current and any future approved products may be negatively impacted.

The degree of market acceptance among patients, physicians, and third-party payors is also important to our ability to successfully commercialize our current and any future approved products. The degree of acceptance will depend on a number of factors including the clinical benefits of our products, effectiveness of our marketing, sales and distribution strategy and operations, the acceptance of our product by patients, physicians and third-party payors, the perceived advantages and relative cost, safety and efficacy of alternative treatments, and the acceptance and degree of adoption of our products by institutional treatment pathways and institutional, local, and national clinical guidelines such as the National Comprehensive Cancer Networks® Clinical Practice Guidelines in Oncology, or the NCCN Guidelines, or other country-specific guidelines. In the U.S., many oncology practices and healthcare providers rely on the NCCN Guidelines or other institutional practice pathways in decisions related to treatment of patients and utilization of medicines. To the extent that our current or any future approved products are not included or positioned favorably in such treatment guidelines and pathways, the full utilization potential of our products may not be reached, which may harm our ability to successfully commercialize our current or any future approved products. For example, in the ADCETRIS frontline Hodgkin lymphoma indication, the NCCN Guidelines have been interpreted as being more restrictive than our labeled indication and since these guidelines and related interpretations have been translated into treatment pathways for many institutions, our ability to maintain or increase sales of ADCETRIS may be materially harmed or future ADCETRIS sales may otherwise be negatively affected.

Our product candidates are in various stages of development, and it is possible that none of our product candidates will ever become commercial products.

Although we announced positive results from the innovaTV 204 trial of our late-stage product candidate, tisotumab vedotin and we and Genmab submitted a BLA to the FDA seeking accelerated approval for tisotumab vedotin, we cannot be certain that the data from the innovaTV 204 trial will be sufficient to support accelerated approval. We cannot predict whether the BLA that we and Genmab submitted for tisotumab vedotin will be accepted or approved in a timely manner or at all. Our clinical pipeline also includes ladiratuzumab vedotin, which is in phase 2 clinical development, and other product candidates that are in phase 1 clinical development. In addition, we have multiple preclinical and research-stage programs that employ our proprietary technologies. We will require significant financial resources and additional personnel in order to continue to advance the development of, pursue, potentially obtain and maintain regulatory approvals for, and potentially commercialize tisotumab vedotin, if we are able to do so at all.

If a product candidate fails at any stage of development or fails to receive regulatory approval, or we or our collaborators otherwise determine to discontinue development of that product candidate, we will not have the anticipated revenues from that product candidate to fund our operations, and we may not receive any return on our investment in that product candidate. Preclinical studies and any encouraging or positive preliminary and interim data from our clinical trials of our product candidates may not be predictive of the results of ongoing or later clinical trials. Even if we or our collaborators are able to complete our planned clinical trials of our product candidates according to our current development timeline, any encouraging or positive results from clinical trials of our product candidates in earlier stage trials may not be replicated in subsequent later-stage trials. For example, although we reported positive results from the innovaTV 204 trial of tisotumab vedotin, we cannot be certain that tisotumab vedotin will demonstrate sufficient efficacy in other trials. In addition, we are developing products and product candidates in indications in which competition is intense, and it is possible that a clinical trial we run may meet its safety and efficacy endpoints but we may choose not to advance the development and commercialization of a product or product candidate in one or more indications due to changes in the competitive environment and the rapid evolution of the standard of care. As a result, we and our collaborators may conduct lengthy and expensive clinical trials of our products and product candidates only to learn that a product or product candidate is not an effective treatment or is not superior to existing approved therapies in the applicable indication, or has an unacceptable safety profile. Any of these results could prevent or significantly delay regulatory approval for the applicable product in any additional indications or of the applicable product candidate or could cause us to discontinue or limit the further development of such product or product candidate. If we or our collaborators fail to produce positive results in our ongoing or planned clinical trials of tisotumab vedotin or any of our other product candidates, the development timeline and regulatory approval and commercialization prospects for that product candidate, and our ability to recoup our investment in that product candidate, would be materially adversely affected.

Due to the uncertain and time-consuming clinical development and regulatory approval process, we may not successfully develop any of our product candidates, or we may choose to discontinue the development of product candidates for a variety of reasons such as safety, risk versus benefit profile, exclusivity, competitive landscape, or prioritization of our resources. It is possible that none of our product candidates will ever become commercial products. In addition, we have to make decisions about which clinical stage and pre-clinical product candidates to develop and advance, and we may not have the resources to invest in certain product candidates, or clinical data and other development considerations may not support the advancement of one or more product candidates. Decision-making about which product candidates to prioritize involves inherent uncertainty, and our development program decision-making and resource prioritization decisions may not improve our results of operations or prospects or enhance the value of our common stock. Our failure to effectively advance our development programs could have a material adverse effect on our business and prospects, and cause the price of our common stock to decline. In addition, many of our non-essential on site research activities are currently significantly reduced as a result of the COVID-19 pandemic, which may negatively impact the number of IND candidates entering our clinical pipeline in future years.

Any failures or setbacks in our ADC development program or our other platform technologies could negatively affect our business and financial position.

ADCETRIS, PADCEV and our tisotumab vedotin and ladiratuzumab vedotin product candidates are all based on our antibody-drug conjugate, or ADC, technology, which utilizes proprietary stable linkers and potent cell-killing synthetic agents. Our ADC technology is also the basis of our license agreements with AbbVie Biotechnology Ltd., or AbbVie, Astellas, Genentech, Inc., a member of the Roche Group, or Genentech, GlaxoSmithKline LLC, or GSK, and Progenics Pharmaceuticals Inc., or Progenics, and our collaboration agreements with Takeda, Astellas, and Genmab. Any failures or setbacks in our ADC development program or with respect to our additional proprietary technologies, including adverse effects resulting from the use of this technology in human clinical trials and/or the imposition of clinical holds on our trials of our product candidates, could have a detrimental impact on the continued commercialization of our products in their current or any potential future approved indications and on our product candidate pipeline, as well as our ability to maintain and/or enter into new corporate collaborations regarding our ADC technology, which would negatively affect our business and financial position.

We face intense competition and rapid technological change, which may result in others discovering, developing or commercializing competing products before or more successfully than we do.

The biotechnology and biopharmaceutical industries are characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. Many third parties compete with us in developing various approaches to treating cancer. They include pharmaceutical companies, biotechnology companies, academic institutions and other research organizations.

Many of our competitors have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approval and marketing than we do. In addition, many of these competitors are active in seeking patent protection and licensing arrangements in anticipation of collecting royalties for use of technology that they have developed. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These third parties compete with us in recruiting and retaining qualified scientific and management personnel, as well as in acquiring technologies complementary to our programs.

With respect to ADCETRIS, there are several other FDA approved drugs for its approved indications. BMS's nivolumab and Merck's pembrolizumab are approved for the treatment of certain patients with relapsed or refractory classical Hodgkin lymphoma, and Celgene's romidepsin and Acrotech Biopharma's pralatrexate and belinostat are approved for relapsed or refractory systemic anaplastic large cell lymphoma, or sALCL, among other T-cell lymphomas. Kyowa Kirin's mogamulizumab is approved for adult patients with relapsed or refractory mycosis fungoides or Sézary syndrome. The competition ADCETRIS faces from these and other therapies is intensifying. Additionally, Merck is conducting a phase 3 clinical trial in relapsed or refractory classical Hodgkin lymphoma comparing pembrolizumab with ADCETRIS. An interim analysis of this clinical trial demonstrated a statistically significant improvement in progression-free survival for pembrolizumab compared with ADCETRIS, resulting in a label expansion to an earlier line of therapy, and we expect increased competition from pembrolizumab in this indication. We are also aware of multiple investigational agents currently being studied that, if successful, may compete with ADCETRIS in the future. Data have also been presented on several developing technologies, including bispecific antibodies and CAR modified T-cell therapies that may compete with ADCETRIS in the future. Further, there are many competing approaches used in the treatment of patients in ADCETRIS' approved indications, including autologous hematopoietic stem cell transplant, allogeneic hematopoietic stem cell transplant, combination chemotherapy, clinical trials with experimental agents and single-agent regimens.

With respect to PADCEV, other treatments in pretreated metastatic urothelial cancer include checkpoint inhibitor monotherapy, generic chemotherapy and, for patients with select FGFR genetic alterations, Janssen's erdafitinib. There are other investigational agents that, if approved, could be competitive with PADCEV, such as Gilead's sacituzumab govitecan, which is in a pivotal phase 2 study. Treatment in front line metastatic urothelial cancer has traditionally been treated with chemotherapy alone but is evolving to include two checkpoint inhibitor therapies for cisplatin-ineligible patients with high PD-L1 expression or patients who are ineligible for platinum therapy. Several trials of investigational agents in combination with chemotherapy or other novel agents are ongoing. Continued development of PD-(L)1 targeted therapies across early stage bladder cancer and in metastatic bladder cancer in frontline combinations with chemotherapy, in frontline maintenance with the recent approval of avelumab, and in pretreated disease, could potentially impact PADCEV usage and enrollment to PADCEV clinical trials.

With respect to TUKYSA, there are multiple marketed products which target HER2, including the antibodies trastuzumab and pertuzumab and the antibody drug conjugate T-DM1. In addition, lapatinib is an EGFR/HER2 oral kinase inhibitor for the treatment of metastatic breast cancer, and neratinib is an irreversible pan-HER kinase inhibitor indicated for extended adjuvant treatment and has been recently approved for patients who have received two or more prior anti-HER2-based regimens in the metastatic setting. Daiichi Sankyo and AstraZeneca have fam-trastuzumab deruxtecan-nxki which was recently approved for patients who have received two or more prior anti-HER2-based regimens in the metastatic breast cancer setting and also in HER2 positive gastric cancer. Byondis has an antibody drug conjugate, SYD985, in a pivotal study in this patient population and MacroGenics has a HER2 targeted, Fc-optimized antibody, margetuximab, which was recently approved by the FDA.

With respect to tisotumab vedotin, in June 2018, Merck's pembrolizumab was approved for the treatment of recurrent or metastatic cervical cancer with disease progression on or after chemotherapy in patients whose tumors express PD-L1. We are also aware of other companies that currently have products in development for the treatment of late-stage cervical cancer which could be competitive with tisotumab vedotin, including Agenus, BMS, Iovance Biotherapeutics, Merck, Regeneron Pharmaceuticals, Sanofi-Aventis and Roche.

Many other pharmaceutical and biotechnology companies are developing and/or marketing therapies for the same types of cancer that our product candidates are designed and being developed to treat. For example, we believe that companies including AbbVie, ADC Therapeutics, Affimed, Agios, Amgen, Astellas, Bayer, Biogen, BMS, Celgene, Daiichi Sankyo, Eisai, Genentech, GSK, Gilead, ImmunoGen, Infinity, Janssen, Karyopharm, MacroGenics, MedImmune, MEI Pharma, Merck, Novartis, Pfizer, Puma Biotech, Sanofi-Aventis, Spectrum Pharmaceuticals, Takeda, Teva, and Xencor are developing and/or marketing products or technologies that may compete with ours. In addition, our ADC collaborators may develop compounds utilizing our technology that may compete with product candidates that we are developing.

We are aware of other companies that have technologies that may be competitive with ours, including AbbVie, ADC Therapeutics, Astellas, AstraZeneca, BMS, Daiichi Sankyo, Gilead, ImmunoGen, Janssen, MedImmune, Merck, Mersana, Pfizer, Roche, Sutro, and Zymeworks, all of which have ADC technology. ImmunoGen has several ADCs in development that may compete with our product candidates. ImmunoGen has also established partnerships with other pharmaceutical and biotechnology companies to allow those other companies to utilize ImmunoGen's technology, including Sanofi-Aventis, Genentech, Novartis, Takeda and Lilly. We are also aware of a number of companies developing monoclonal antibodies directed at the same antigen targets or for the treatment of the same diseases as our product candidates.

In addition, in the U.S., the Biologics Price Competition and Innovation Act of 2009 created an abbreviated approval pathway for biological products that are demonstrated to be "highly similar" or "biosimilar" to or "interchangeable" with an FDA approved biological product. This pathway allows competitors to reference the FDA's prior approvals regarding innovative biological products and data submitted with a BLA to obtain approval of a biosimilar application 12 years after the time of approval of the innovative biological product. The 12-year exclusivity period runs from the initial approval of the innovator product and not from approval of a new indication. In addition, the 12-year exclusivity period does not prevent another company from independently developing a product that is highly similar to the innovative product, generating all the data necessary for a full BLA and seeking approval. Exclusivity only assures that another company cannot rely on the FDA's prior approvals in approving a BLA for an innovator's biological product to support the biosimilar product's approval. Further, under the FDA's current interpretation, it is possible that a biosimilar applicant could obtain approval for one or more of the indications approved for the innovator product by extrapolating clinical data from one indication to support approval for other indications. In the EU, the EC has granted marketing authorizations for biosimilars pursuant to a set of general and product class-specific guidelines. We are aware of many pharmaceutical and biotechnology and other companies that are actively engaged in research and development of biosimilars or interchangeable products.

It is possible that our competitors will succeed in developing technologies that are more effective than ADCETRIS, PADCEV, TUKYSA, tisotumab vedotin or our other product candidates or that would render our technology obsolete or noncompetitive, or will succeed in developing biosimilar, interchangeable or generic products for ADCETRIS, PADCEV, TUKYSA, tisotumab vedotin or our other product candidates. We anticipate that we will continue to face increasing competition in the future as new companies enter our market and scientific developments surrounding biosimilars and other cancer therapies continue to accelerate. We cannot predict to what extent the entry of biosimilars or other competing products will impact potential future sales of ADCETRIS, PADCEV, TUKYSA, tisotumab vedotin or our other product candidates.

Risks Related to Regulatory Approval and Oversight, and Other Legal Compliance Matters

Even if we and our collaborators obtain regulatory approvals to market our current and any future approved products, we and our collaborators will remain subject to extensive ongoing regulatory obligations and oversight, including post-approval requirements, that could result in significant additional expense and could negatively impact our and our collaborators' ability to commercialize our current and any future approved products.

We are subject to extensive ongoing obligations and continued regulatory review from applicable regulatory agencies with respect to any product for which we have obtained regulatory approval, including ADCETRIS, PADCEV and TUKYSA in each of their approved indications, such as continued adverse event reporting requirements and the requirement to have some of our promotional materials pre-cleared by the FDA. There may also be additional post-marketing obligations, all of which may result in significant expense and limit our and our collaborators' ability to commercialize our current and any future approved products. For example, the FDA's accelerated approval of PADCEV included a requirement for a confirmatory trial, EV-301, to confirm the clinical benefit and provide additional long-term efficacy data that may inform product labeling. If the FDA does not agree with our interpretation of the data from this post-marketing study, it could withdraw approval of PADCEV or require the inclusion of unfavorable safety information in our product labeling, which could seriously harm our business. Moreover, in connection with PADCEV's accelerated approval, the labeling and advertising and promotion of PADCEV are subject to additional regulatory requirements, which entail significant expense and could negatively impact the commercialization of PADCEV. In addition, the use of any of our products may uncover additional adverse events that require us to update the product's prescribing information, limit or prevent that product's widespread use or that result in the withdrawal of that product from the market. Any problems with a product or any violation of ongoing regulatory obligations could result in restrictions on the applicable product, including the withdrawal of the applicable product from the market.

ADCETRIS is approved under conditional marketing authorization in relapsed Hodgkin lymphoma, relapsed cutaneous T-cell lymphoma, and in both relapsed and frontline sALCL in the EU under regulations which allow for approval of products for cancer or other serious or life threatening illnesses based on a surrogate endpoint or on a clinical endpoint other than survival or irreversible morbidity. Takeda is subject to certain post-approval requirements, including the requirement to conduct clinical trials to confirm clinical benefit. Takeda's failure to provide these additional clinical data from confirmatory studies could result in the European Commission, or EC, withdrawing approval of ADCETRIS in the EU for certain indications, which would negatively impact anticipated royalty revenue from ADCETRIS sales by Takeda in the EU and could adversely affect our results of operations. The FDA's approval of ADCETRIS in combination with chemotherapy for patients with previously untreated CD30-expressing peripheral T-cell lymphoma, or the frontline PTCL indication, included a post-marketing commitment to develop a clinically validated in-vitro diagnostic device for the selection of patients with CD30-expressing PTCL, not including sALCL, for treatment with ADCETRIS in this indication. We and Takeda have a collaboration with Ventana Medical Systems, Inc., or Ventana, under which Ventana is working to develop, manufacture and commercialize a companion diagnostic test to measure CD30 expression levels in tissue specimens. If Ventana develops an in-vitro diagnostic device that we are able to clinically validate, the FDA or another regulatory authority may revise our label for the frontline PTCL indication or in connection with any future approvals to require the use of the in-vitro test as a companion diagnostic. This may limit our ability to commercialize ADCETRIS in the applicable treatment setting due to potential label requirements, prescriber practices, constraints on availability of the diagnostic, or other factors. If Ventana is unable to successfully develop the CD30 in-vitro diagnostic, or experiences delays in doing so, or we experience delays in clinical validation of the diagnostic, we will likely need to renegotiate the timing or content of our post-marketing commitment regarding the in-vitro diagnostic device with the FDA.

We and the manufacturers of our current and any future approved products are also required, or will be required, to comply with current Good Manufacturing Practices, or cGMP, regulations, which include requirements relating to quality control and quality assurance as well as the corresponding maintenance of records and documentation. Further, regulatory agencies must approve these manufacturing facilities before they can be used to manufacture our products and product candidates, and these facilities are subject to ongoing regulatory inspections. In addition, regulatory agencies subject an approved product, its manufacturer and the manufacturer's facilities to continual review and inspections, including periodic unannounced inspections. The subsequent discovery of previously unknown problems with our current or any future approved products, including adverse events of unanticipated severity or frequency, or problems with the facilities where our current or any future approved products are manufactured, including potential staffing shortages, production slowdowns and the extensive reliance on virtual oversight of third-party manufacturing in connection with the COVID-19 pandemic, may result in restrictions on the marketing of our current or any such future approved products, up to and including withdrawal of the affected product from the market. If our manufacturing facilities, our collaborators' manufacturing facilities, or those of our respective suppliers, fail to comply with applicable regulatory requirements, such noncompliance could result in regulatory action, delays in regulatory timelines and additional costs to us.

Failure to comply with applicable FDA and other regulatory requirements may subject us to administrative or judicially imposed sanctions, including:

- issuance of Form FDA 483 notices or Warning Letters by the FDA or other regulatory agencies;
- imposition of fines and other civil penalties;
- criminal prosecutions;
- injunctions, suspensions or revocations of regulatory approvals;
- suspension of any ongoing clinical trials;
- total or partial suspension of manufacturing;
- delays in commercialization;
- refusal by the FDA to approve pending applications or supplements to approved applications submitted by us;
- refusals to permit drugs to be imported into or exported from the U.S.;
- restrictions on operations, including costly new manufacturing requirements; and
- product recalls or seizures.

The policies of the FDA and other regulatory agencies may change and additional government regulations may be enacted that could prevent or delay regulatory approval of our product candidates or of ADCETRIS, PADCEV or TUKYSA in any additional indications or territories, or further restrict or regulate post-approval activities. We cannot predict the likelihood, nature or extent of adverse government regulation that may arise from future legislation or administrative action, either in the U.S. or abroad. If we are not able to maintain regulatory compliance, we or our collaborators might not be permitted to market our current or any future approved products and our business would suffer.

Healthcare law and policy changes may have a material adverse effect on us.

In recent years, there have been a number of legislative and regulatory actions and executive orders that have made reforms to the U.S. healthcare system. For example, the federal government has implemented reforms to government healthcare programs in the U.S., including changes to the methods for, and amounts of, Medicare reimbursement and changes to the Medicaid Drug Rebate Program. The implementation of certain of these policy changes has decreased our revenues and increased our costs, and federal and state legislatures, health agencies and third-party payors continue to focus on containing the cost of health care. Further legislative and regulatory changes, and increasing pressure from social sources, are likely to further influence the manner in which our products are priced, reimbursed, prescribed and purchased. For example, additional reforms could result in further reductions in coverage and levels of reimbursement for our products, expansion of U.S. government rebate programs, increases in the rebates payable under these programs, requests for additional or supplemental rebates, and additional downward pressure on the prices that we and our collaborators receive for our products.

The Trump administration put forth a number of proposals aimed at containing prescription drug prices and announced several Executive Orders that sought to implement a number of the administration's proposals. For example, as a result of Executive Orders, the FDA released a final rule, effective November 30, 2020, that cleared a path for importation of some Canadian drugs into the U.S. Biological products were excluded from the rule's definition of "eligible prescription drug," however TUKYSA may be subject to importation from Canada under this rule, which could negatively affect TUKYSA sales in the U.S. We expect the Biden administration to similarly pursue and implement measures aimed at reducing pharmaceutical drug pricing. Also, in the current climate, price increases on our products and negative publicity regarding drug pricing and price increases generally, whether on our products or products distributed by other pharmaceutical companies, could negatively affect market acceptance of, and sales of, our products.

Some states are also considering legislation and ballot initiatives that would control the prices and coverage and reimbursement levels of drugs, including laws to allow importation of pharmaceutical products from lower cost jurisdictions outside the U.S. and laws intended to impose price controls on state drug purchases.

In addition, governments in countries outside the U.S. control the costs of pharmaceuticals. Many European countries and Canada have established pricing and reimbursement policies that contain costs by referencing the price of the same or similar products in other countries. In these instances, if coverage or the level of reimbursement is reduced, limited or eliminated in one or more countries, we may be unable to obtain or maintain anticipated pricing or reimbursement in other countries or in new markets. This may create the opportunity for third-party cross-border trade or may influence our decision whether to sell a product in one or more countries, thus adversely affecting our geographic expansion plans.

It is also possible that governments may take additional action to reform the healthcare system in response to the evolving effects of the COVID-19 pandemic.

We cannot assure you as to the ultimate content, timing, or effect of future healthcare law and policy changes, nor is it possible at this time to estimate the impact of any such potential changes; however, such changes or the ultimate impact of changes could materially and adversely affect our revenue or sales of our current and or potential future products, as well as those of our collaborators.

We are subject to various state, federal and international laws and regulations, including healthcare laws and regulations, that may impact our business and could subject us to significant fines and penalties or other negative consequences.

Our operations may be directly or indirectly subject to various healthcare laws, including, without limitation, the federal Anti-Kickback Statute, federal civil and criminal false claims laws, regulations prohibiting off-label promotions and federal transparency requirements. These laws may impact, among other things, the sales, marketing and education programs for ADCETRIS, PADCEV, TUKYSA and any future approved products.

The federal Anti-Kickback Statute prohibits, among other things, knowingly and willingly soliciting, offering, receiving or providing remuneration, directly or indirectly, in exchange for or to induce either the referral of an individual, or the furnishing or arranging for a good or service, for which payment may be made, in whole or in part, under a federal healthcare program such as the Medicare and Medicaid programs. Although there are a number of statutory exceptions and regulatory safe harbors protecting some common activities from prosecution, the exceptions and safe harbors are drawn narrowly, and practices that involve remuneration not intended to induce prescribing, purchases or recommendations may be subject to scrutiny if they do not qualify for an exception or safe harbor. In addition, a conviction for violation of the federal Anti-Kickback Statute requires mandatory exclusion from participation in federal healthcare programs.

The federal civil and criminal false claims laws, including the civil False Claims Act, prohibit, among other things, persons or entities from knowingly presenting, or causing to be presented, a false claim to, or the knowing use of false statements to obtain payment from or approval by the federal government, including the Medicare and Medicaid programs, or knowingly making, using, or causing to be made or used a false record or statement material to a false or fraudulent claim or to avoid, decrease, or conceal an obligation to pay money to the federal government. Many pharmaceutical and other healthcare companies have been investigated and have reached substantial financial settlements with the federal government under the civil False Claims Act for a variety of alleged improper marketing, promotion or other activities.

The FDA and other governmental authorities also actively investigate allegations of off-label promotion activities in order to enforce regulations prohibiting these types of activities. In recent years, private whistleblowers have also pursued False Claims Act cases against a number of pharmaceutical companies for causing false claims to be submitted as a result of off-label promotion. If we are found to have promoted an approved product for off-label uses, we may be subject to significant liability, including significant civil and administrative financial penalties and other remedies as well as criminal penalties and other sanctions. Even when a company is not determined to have engaged in off-label promotion, the allegation from government authorities or market participants that a company has engaged in such activities could have a significant impact on the company's sales, business and financial condition. The U.S. government has also required companies to enter into complex corporate integrity agreements, deferred prosecution agreements and/or non-prosecution agreements that impose significant reporting and other burdens on the affected companies.

The federal transparency requirements under the Physician Payments Sunshine Act require certain manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid, or the Children's Health Insurance Program to annually report information related to certain payments or other transfers of value to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors), and teaching hospitals, or to entities or individuals at the request of, or designated on behalf of, the physicians and teaching hospitals, and to report annually certain ownership and investment interests held by physicians and their immediate family members. Beginning in 2022, applicable manufacturers also will be required to report information related to payments and other transfers of value to physician assistants, nurse practitioners, clinical nurse specialists, certified registered nurse anesthetists, anesthesiologist assistants and certified nurse midwives during the previous year. Failure to submit timely, accurately and completely the required information for all payments, transfers of value and ownership or investment interests may result in civil monetary penalties of up to an aggregate of $150,000 per year plus up to an aggregate of $1 million per year for "knowing failures," as adjusted for inflation.

Other healthcare laws and regulations that may affect our ability to operate include, among others, the federal civil monetary penalties statute and the federal Health Insurance Portability and Accountability Act, or HIPAA. In addition, many states and jurisdictions outside the U.S. have similar laws and regulations, such as anti-kickback, anti-bribery and corruption, false claims and transparency, to which we are currently and/or may in the future, be subject. Additional information about these requirements is provided under "Government Regulation – Healthcare Regulation" above. In addition, the number and complexity of healthcare laws and regulations applicable to our business continue to increase.

We are also subject to numerous other laws and regulations that while not specific to the healthcare industry, do apply to the healthcare industry in important ways. For instance, the U.S. Foreign Corrupt Practices Act, or FCPA, generally prohibits paying, offering to pay, or authorizing the payment of anything of value to any foreign government official, governmental staff members, political party or political candidate in an attempt to obtain or retain business or to otherwise influence a person working in an official capacity. In Europe, national anti-corruption laws prohibit giving, offering, or promising bribes to any person, including foreign government officials and private persons, as well as requesting, agreeing to receive, or accepting bribes from any person. Various European anti-corruption laws have broad extraterritorial reach and therefore we may be subject to those laws even if we do not have an established entity in those countries and we may be held liable for bribes given, offered or promised to any person, including private persons, by employees and persons associated with us in order to obtain or retain business or a business advantage. As we expand our footprint and activities outside of the U.S. and Canada, our exposure to compliance risks under the FCPA and other similar laws will likewise increase.

In an effort to comply with these laws and regulations, we have implemented a compliance program designed to actively identify, prevent and mitigate risk through the implementation of compliance policies and systems and by promoting a culture of compliance. We also actively work to revise and evolve our compliance program in an effort to keep pace with evolving compliance risks and the growing scale of our business. Although we take our obligation to maintain our compliance with these various laws and regulations seriously and our compliance program is designed to detect and prevent the violation of these laws and regulations, we cannot guarantee that our compliance program will be sufficient or effective, that we will be able to integrate the operations of newly formed affiliates or acquired businesses into our compliance program on a timely basis, that our employees will comply with our policies and that our employees will notify us of any violation of our policies, that we will have the ability to take appropriate and timely corrective action in response to any such violation, or that we will make decisions and take actions that will necessarily limit or avoid liability for whistleblower claims that individuals, such as employees or former employees, may bring against us or that governmental authorities may prosecute against us based on information provided by individuals. If we are found to be in violation of any of the laws and regulations described above or other applicable state and federal healthcare laws, we may be subject to penalties, including significant civil, criminal and administrative penalties, damages, fines, disgorgement, contractual damages, reputational harm, administrative burdens, imprisonment, diminished profits and future earnings, exclusion from government healthcare reimbursement programs, additional reporting requirements and oversight if we become subject to a corporate integrity agreement or similar agreement to resolve allegations of non-compliance with these laws, and/or the curtailment or restructuring of our operations, any of which could have a material adverse effect on our business, results of operations and growth prospects. Any action against us for violation of these laws or regulations, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. Moreover, achieving and sustaining compliance with applicable federal, state and healthcare laws outside the U.S. is costly and time-consuming for our management.

We are subject to evolving privacy and security laws, and our failure to comply could result in penalties and reputational damage.

We are subject to numerous privacy and data protection laws and regulations governing healthcare and other information. The U.S. federal government, individual U.S. states, EU member countries and other jurisdictions, including Switzerland and Canada, have adopted data protection laws and regulations which impose significant compliance obligations. For example, the use and international transfer of personal data collected in the EU is governed by the provisions of the EU General Data Protection Regulation, or the GDPR. The GDPR, which is wide-ranging in scope, imposes several requirements relating to the control over personal data by individuals to whom the personal data relates, the information provided to the individuals, the documentation we must maintain, the security and confidentiality of the personal data, data breach notification and the use of third-party processors in connection with the processing of personal data. The GDPR also imposes strict rules on the transfer of personal data out of the EU, provides an enforcement authority and authorizes the imposition of large penalties for noncompliance, including the potential for fines of up to €20 million or 4% of the annual global revenues of the non-compliant company, whichever is greater. The GDPR requirements apply not only to third-party transactions, but also to transfers of information between us and our subsidiaries, including employee information. The GDPR has increased our responsibility and potential liability in relation to all types of personal data that we process, including in clinical trials, and we may be required to put in place additional mechanisms to ensure compliance with the GDPR, which could divert management's attention and increase our cost of doing business. However, despite our ongoing efforts to bring our practices into compliance with the GDPR, we may not be successful either due to various factors within our control or other factors outside our control. Local data protection authorities can also have different interpretations of the GDPR, leading to potential inconsistencies amongst various EU member states.

Moreover, one of the primary safeguards allowing U.S. companies to import personal information from Europe has been certification to the EU-U.S. Privacy Shield and Swiss-U.S. Privacy Shield frameworks administered by the U.S. Department of Commerce. However, the Court of Justice of the EU, or the CJEU, recently invalidated the EU-U.S. Privacy Shield. The same decision also raised questions about whether one of the primary alternatives to the EU-U.S. Privacy Shield, namely, the EC's Standard Contractual Clauses, provide sufficient protection for personal data transferred from Europe to the U.S. or most other countries without analyzing each transfer and implementing supplementary measures to protect the data. Following recent recommendations from the European Data Protection Board, we are undertaking a review of personal data transfers from the EU and will assess the impact of the CJEU decision on our operations. At present, there are few, if any, viable alternatives to the EU-U.S. Privacy Shield and the Standard Contractual Clauses. Where appropriate, we rely on individuals' explicit consent to transfer their personal information from Europe to the U.S. and other countries. In addition, we rely on inter-company Standard Contractual Clauses to provide appropriate safeguards for such transfers. The EC is expected to publish new Standard Contractual Clauses soon and to give companies relying on them for transfers 12 months to adapt. Authorities in Switzerland, whose data protection laws are similar to those of the EU, also invalidated use of the Swiss-U.S. Privacy Shield. Authorities in the United Kingdom, or U.K., may similarly invalidate use of the EU-U.S. Privacy Shield. The U.K.'s departure from the EU, known as Brexit, has created additional uncertainty with regard to data protection regulation in the U.K., as it is unclear whether the U.K. and EU will be able to negotiate a mutually agreeable data protection agreement that regulates data transfers between the U.K. and EU and what impact this will have on our business. If we are unable to rely on explicit consent to transfer individuals' personal information from Europe, which can be revoked, or if, upon review by authorities, our existing compliance solutions are found to be insufficient, we will face increased exposure to substantial fines under European data protection laws as well as injunctions against processing personal information from persons resident in Europe. The inability to import personal information from the European Economic Area, U.K. or Switzerland could restrict our clinical trial activities in Europe, limit our ability to collaborate with contract research organizations, service providers, contractors and other companies subject to European data protection laws, interfere with our ability to hire employees in Europe and require us to increase our data processing capabilities in Europe at significant expense.

In addition, in the U.S., HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and its implementing regulations, governs certain types of individuals and entities with respect to the conduct of certain electronic healthcare transactions and imposes certain obligations on covered entities, including certain healthcare providers, health plans, and healthcare clearinghouses, as well as their respective business associates that create, receive, maintain or transmit individually identifiable health information for or on behalf of a covered entity, and their subcontractors that use, disclose, access, or otherwise process individually identifiable health information, with respect to the security, privacy and transmission of individually identifiable health information. HIPAA applies to certain aspects of our business and failure to comply with its requirements could result in the imposition of fines and penalties, and additional negative consequences.

In any event, our failure or alleged failure (including as a result of deficiencies in our policies, procedures or measures relating to privacy, data protection, marketing or communications) to comply with laws, regulations, policies, legal or contractual obligations, industry standards or regulatory guidance relating to privacy or data protection, may result in governmental investigations and enforcement actions, litigation, fines and penalties or adverse publicity. In addition, new regulation, legislative actions or changes in interpretation of existing laws or regulations regarding privacy and data protection, together with applicable industry standards, may increase our costs of doing business. In this regard, we expect that there will continue to be new laws, regulations and industry standards relating to privacy and data protection in the U.S., the EU and other jurisdictions, such as the California Consumer Privacy Act of 2018 and the California Privacy Rights Act of 2020, which have been characterized as "GDPR-like" privacy laws, and we cannot determine the impact such new laws, regulations and standards may have on our business.

As we continue to expand our operations internationally, we are subject to an increased risk of conducting activities in a manner that violates applicable anti-bribery or anti-corruption laws. We are also subject to laws and regulations covering data privacy and the protection of health-related and other personal information. These laws and regulations could create liability for us or increase our cost of doing business, any of which could have a material adverse effect on our business, results of operations and growth prospects.

We are continuing to expand our operations internationally, and are building a commercial infrastructure in Europe. In this regard, we currently have multiple subsidiaries in jurisdictions outside the U.S., including a number of subsidiaries in Europe, and plan in the future to have subsidiaries in additional jurisdictions. Our business activities outside of the U.S. are and will continue to be subject to the FCPA, which is described above, and similar anti-bribery or anti-corruption laws, regulations or rules of other countries in which we currently and may in the future operate, including the recently established French Anti-corruption Law on Transparency, Fight against Corruption and the Modernization of the Economy, referred to as Sapin II. In Europe, national anti-corruption laws prohibit giving, offering, or promising bribes to any person, including foreign government officials and private persons, as well as requesting, agreeing to receive, or accepting bribes from any person. Various European anti-corruption laws have broad extraterritorial reach and therefore we may be subject to those laws even if we do not have an established entity in those countries and we may be held liable for bribes given, offered or promised to any person, including private persons, by employees and persons associated with us in order to obtain or retain business or a business advantage. In the course of expanding our operations internationally, we will need to establish and expand business relationships with various third parties, such as independent contractors, distributors, vendors, and advocacy groups, and we will interact with physicians, which are generally considered foreign officials in Europe, as well as with regulatory authorities who may be deemed to be foreign officials under the FCPA or similar laws of other countries that may govern our activities. Any interactions with any such parties or individuals that are found to be in violation of such laws could result in substantial fines and penalties and could materially harm our business. Furthermore, any finding of a violation under one country's laws may increase the likelihood that we will be prosecuted and be found to have violated another country's laws. If our business practices outside the U.S. are found to be in violation of the FCPA, the Sapin II or other similar laws, we may be subject to significant civil and criminal penalties which could have a material adverse effect on our business, results of operations and growth prospects. We are also subject to laws and regulations covering data privacy and the protection of health-related and other personal information. In this regard, EU member states and other jurisdictions outside the U.S., including Switzerland, have adopted data protection laws and regulations, such as the GDPR, which impose significant compliance obligations. Failure to comply with these laws could lead to government enforcement actions and significant penalties against us, which could have a material adverse effect on our business, results of operations and growth prospects.

Enhanced governmental and private scrutiny over, or investigations or litigation involving, pharmaceutical manufacturer donations to patient assistance programs offered by charitable foundations may require us to modify our programs and could negatively impact our business practices, harm our reputation, divert the attention of management and increase our expenses.

We have a patient assistance program and also occasionally make donations to independent charitable foundations that help financially needy patients. These types of programs designed to assist patients in affording pharmaceuticals have become the subject of scrutiny. In recent years, some pharmaceutical manufacturers were named in class action lawsuits challenging the legality of their patient assistance programs and support of independent charitable patient support foundations under a variety of federal and state laws. Our patient assistance program and support of independent charitable foundations could become the target of similar litigation. At least one insurer also has directed its network pharmacies to no longer accept manufacturer co-payment coupons for certain specialty drugs the insurer identified. In addition, certain state and federal enforcement authorities and members of Congress have initiated inquiries about co-pay assistance programs. Some state legislatures have also been considering proposals that would restrict or ban co-pay coupons.

In addition, there has been regulatory review and enhanced government scrutiny of donations by pharmaceutical companies to patient assistance programs operated by charitable foundations. For example, the HHS Office of Inspector General has established specific guidelines permitting pharmaceutical manufacturers to make donations to charitable organizations who provide co-pay assistance to Medicare patients, provided that such organizations 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. If we or our vendors or donation recipients are deemed to fail to comply with laws or regulations in the operation of these programs, we could be subject to damages, fines, penalties or other criminal, civil or administrative sanctions or enforcement actions. Further, numerous organizations, including pharmaceutical manufacturers, have received subpoenas from the U.S. Department of Justice and other enforcement authorities seeking information related to their patient assistance programs and support, and certain of these organizations have entered into significant civil settlements with applicable enforcement authorities. In connection with these civil settlements, the U.S. government has and may in the future require the affected companies to enter into complex corporate integrity agreements that impose significant reporting and other requirements on those companies. We cannot ensure that our compliance controls, policies and procedures will be sufficient to protect against acts of our employees, business partners or vendors that may violate the laws or regulations of the jurisdictions in which we operate. Regardless of whether we have complied with the law, a government investigation could negatively impact our business practices, harm our reputation, divert the attention of management and increase our expenses.

Product liability and product recalls could harm our business, and we may not be able to obtain adequate insurance to protect us against product liability losses.

The current and future use of our products and product candidates by us and our corporate collaborators in clinical trials and the sale of our products, expose us to product liability claims. These claims have and may in the future be made directly by patients or healthcare providers or indirectly by pharmaceutical companies, our corporate collaborators or others selling such products. Additionally, in connection with our acquisition of the manufacturing facility from BMS, we agreed to enter into certain transitional services agreements under which we manufactured certain clinical drug product components for BMS for a period of time. As a result, it is possible that we may be named as a defendant in product liability suits that may allege that drug products we manufactured for BMS have resulted in injury to patients. We may experience substantial financial losses in the future due to product liability claims. We have obtained product liability coverage, including coverage for human clinical trials and product sold commercially. However, such insurance is subject to coverage limits and exclusions, as well as significant deductibles. In addition, we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against all losses. If a successful product liability claim or series of claims is brought against us for uninsured liabilities or in excess of insured amounts, our assets may not be sufficient to cover such claims and our business operations could be impaired.

Product recalls may be issued at our discretion, or at the discretion of 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 our products for some time and by adversely affecting our reputation.

Our operations involve hazardous materials and are subject to environmental, health and safety controls and regulations.

We are subject to environmental, health and safety laws and regulations, including those governing the use of hazardous materials, and we spend considerable time complying with such laws and regulations. Our business activities involve the controlled use of hazardous materials and although we take precautions to prevent accidental contamination or injury from these materials, we cannot completely eliminate the risk of using these materials. In addition, with respect to our manufacturing facility, we may incur substantial costs to comply with environmental laws and regulations and may become subject to the risk of accidental contamination or injury from the use of hazardous materials in our manufacturing process. It is also possible that our manufacturing facility may expose us to environmental liabilities associated with historical site conditions that we are not currently aware of and did not cause. In this regard, some environmental laws impose liability for contamination on current owners and operators of affected sites, regardless of fault. In the event of an accident or environmental discharge, or new or previously unknown contamination is discovered or new cleanup obligations are otherwise imposed in connection with any of our currently or previously owned or operated facilities, we may be held liable for any resulting damages, which may materially harm our business, financial condition and results of operations.

Changes in funding for the FDA, the SEC and other government agencies, or reduced working hours of governmental employees or by the diversion of the efforts and attention of governmental agencies to approval of other therapeutics or other activities related to the COVID-19 pandemic, could prevent new products and services from being developed or commercialized in a timely manner or otherwise prevent those agencies from performing normal functions on which the operation of our business may rely, which could negatively impact our business.

The ability of the FDA to review and approve new products can be affected by a variety of factors, including government budget and funding levels, ability to hire and retain key personnel and accept payment of user fees, and statutory, regulatory, and policy changes. Average review times at the agency have fluctuated in recent years as a result. In addition, government funding of the FDA, the U.S. Securities and Exchange Commission, or SEC, and other government agencies on which our operations may rely is inherently fluid and unpredictable. With respect to the COVID-19 pandemic, it is possible that we could experience delays in the timing of regulatory review and/or our interactions with regulatory authorities due to reduced working hours or absenteeism of governmental employees or by the diversion of authorities' efforts and attention to approval of other therapeutics or other activities related to COVID-19, which could delay any approval decision with respect to the regulatory application we submitted to the MHRA for TUKYSA, or our progress in advancing our development efforts with respect to other products and product candidates. Our interactions with regulatory authorities in other jurisdictions and across multiple products and product candidates continue but we cannot rule out the possibility of negative impacts on such interactions in the future as the pandemic continues to evolve.

Disruptions at the FDA and other agencies may slow the time necessary for new drugs to be reviewed and/or approved by necessary government agencies, which would adversely affect our business. For example, over the last several years, the U.S. government has shut down several times and certain regulatory agencies, such as the FDA and the SEC, have had to furlough critical FDA, SEC and other government employees and stop critical activities. If a prolonged government shutdown occurs, it could significantly impact the ability of the FDA to timely review and process our regulatory submissions, which could have a material adverse effect on our business. Further, future government shutdowns could potentially impact our ability to access the public markets and obtain necessary capital in order to properly capitalize and continue our operations.

Risks Related to Our Reliance on Third Parties

We depend on collaborative relationships with other companies to assist in the development and commercialization of our products and some of our product candidates and for the development and commercialization of other product candidates utilizing or incorporating our technologies. If we are not able to locate suitable collaborators or if our collaborators do not perform as expected, this may negatively affect our ability to commercialize our products, develop and commercialize our product candidates and/or generate revenues through technology licensing, or may otherwise negatively affect our business.

We have established collaborations with third parties to develop and market each of our products and some of our current and future product candidates. Because control of development and commercialization is shared with our collaborators under these collaborations, we do not have sole discretion and control over the development and commercialization of the applicable products and product candidates. For example, we entered into a collaboration agreement with Takeda in December 2009 that granted Takeda rights to develop and commercialize ADCETRIS outside of the U.S. and Canada, and we entered into a collaboration agreement with Merck in September 2020 that granted Merck rights to develop and commercialize TUKYSA outside of the U.S., Canada and Europe. In addition, we have entered into collaborations with Astellas for the development and commercialization of PADCEV, with Genmab for the development and commercialization of tisotumab vedotin, and with Merck for the development and commercialization of ladiratuzumab vedotin. Our collaborations also include clinical trial collaborations to develop, in combination, our product or product candidates and the products or product candidates of one or more third parties. For example, we have clinical trial collaborations with BMS to evaluate the combination of nivolumab with ADCETRIS in various settings and with Merck to evaluate the combination of pembrolizumab in combination with PADCEV in various settings.

We also have ADC license agreements with AbbVie, Astellas, Genentech, Genmab, GSK and Progenics to allow them to use our proprietary ADC technology, and our ADC licensees conduct all research, product development, manufacturing and commercialization of any product candidates under these agreements.

Our dependence on collaborative arrangements to assist in the development and commercialization of our products and some of our product candidates and on license arrangements for the development and commercialization of other product candidates utilizing or incorporating our technologies subjects us to a number of risks, including:

- we are not able to control the amount and timing of resources that our collaborators and licensees devote to the development or commercialization of products and product candidates under a collaboration or license agreement, including ADCETRIS, PADCEV, TUKYSA and tisotumab vedotin;
- disputes may arise between us and our collaborators or licensees that result in the delay or termination of the research, development or commercialization of the applicable products and product candidates or that result in costly litigation or arbitration that diverts management's attention and resources;
- with respect to collaborations under which we have an active role, we may have differing opinions, processes or priorities than our collaborators, or we may encounter challenges in joint decision making and joint execution, including with respect to any joint development or commercialization plans or co-promotion activities, which may delay or otherwise harm the research, development, launch or commercialization of the applicable products and product candidates, including ADCETRIS, PADCEV, TUKYSA and tisotumab vedotin;
- our current and potential future collaborators and licensees may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon a product candidate, repeat or conduct new clinical trials, use standards or processes for conducting clinical trials that differ from ours or require a new formulation of a product candidate for clinical testing;
- significant delays in the development of product candidates by current and potential collaborators and licensees could allow competitors to bring products to market before product candidates utilizing or incorporating our technologies are approved and impair the ability of current and potential future collaborators and licensees to effectively commercialize these product candidates;

- our relationships with our collaborators and licensees may divert significant time and effort of our scientific staff and management team and require the effective allocation of our resources to multiple internal collaborative projects;
- our current and potential future collaborators and licensees may not pursue regulatory approvals in a timely manner, may not be successful in their efforts to obtain regulatory approvals, or may not launch or commercialize a product in their territories in a timely manner;
- our current and potential future collaborators and licensees may receive regulatory sanctions relating to other aspects of their business, or could take actions with respect to our jointly-developed product, that could adversely affect the development, approval or commercialization of the applicable products or product candidates or our reputation with regulatory agencies;
- our current and potential future collaborators and licensees may not properly maintain or defend our intellectual property rights or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our proprietary information or expose us to potential litigation;
- business combinations or significant changes in a collaborator's or licensee's business strategy may adversely affect such party's willingness or ability to complete its obligations under any arrangement;
- a collaborator or licensee could independently move forward with competing products, therapeutic approaches or technologies to develop treatments for the diseases targeted by us or our collaborators that are developed by such collaborator or licensee either independently or in collaboration with others, including our competitors;
- our current and potential future collaborators and licensees may experience financial difficulties; and
- our collaboration or license agreements may be terminated, breached or allowed to expire, or our collaborators or licensees may reduce the scope of our agreements with them, which could have a material adverse effect on our financial position by reducing or eliminating the potential for us to receive technology access and license fees, milestones and royalties, and/or reimbursement of development costs, and which could require us to devote additional efforts and to incur the additional costs associated with pursuing internal development and commercialization of the applicable products and product candidates.

If our collaborative and license arrangements are not successful as a result of any of the above factors, or any other factors, then our ability to advance the development and commercialization of the applicable products and product candidates and to otherwise generate revenue from these arrangements and to become profitable will be adversely affected, and our business and business prospects may be materially harmed. In particular, if Takeda or Merck were to terminate the ADCETRIS collaboration or the TUKYSA collaboration, respectively, which they may do for any reason upon prior written notice to us, we would not receive milestone payments, co-funded development payments or royalties for the sale of ADCETRIS outside the U.S. and Canada or for TUKYSA outside the U.S., Canada and Europe. As a result of any such termination, we may have to engage another collaborator to complete the ADCETRIS or TUKYSA development process and to commercialize ADCETRIS or TUKYSA in our collaborators' current territories, or to complete the development process and undertake commercializing ADCETRIS or TUKYSA in our collaborators' current territories ourselves, either of which could significantly delay the continued development and commercialization of ADCETRIS or TUKYSA and increase our costs. Similarly, Astellas, Genmab and Merck each have the right to opt out of their co-development obligations relating to PADCEV, tisotumab vedotin and ladiratuzumab vedotin, respectively. If Astellas, Genmab or Merck were to opt out of their co-development collaborations with us, this would significantly delay the commercialization and development of PADCEV or the development of tisotumab vedotin or ladiratuzumab vedotin, as applicable, and increase our costs. Any of these events could significantly harm our financial position, adversely affect our stock price and require us to incur all the costs of developing and commercializing the applicable product or product candidate, which would otherwise be co-funded by our collaboration partners. Moreover, in the case of PADCEV and tisotumab vedotin, the success of PADCEV and any approved tisotumab vedotin product will depend, in part, on our ability to effectively jointly commercialize PADCEV and tisotumab vedotin with Astellas and Genmab, respectively, in accordance with our joint commercialization obligations and joint commercialization plans. The success, if any, of our joint commercialization efforts with Astellas and Genmab, as well as the activities of Astellas and Genmab, will significantly impact the commercialization of PADCEV and the potential future commercialization of an approved tisotumab vedotin product, respectively. The product candidates being developed under our collaboration and license agreements are in various stages of development and we cannot guarantee that any of the product candidates under our collaborations will be successful. In this regard, certain of our ADC licensees have advanced product candidates utilizing or incorporating our ADC technology to later stage clinical trials that were not successful. In the future, we may not be able to locate third-party collaborators to assist in commercializing any future products in regions outside the U.S., and we may lack the capital and resources necessary to market these products in certain regions outside the Unites States alone.

We currently rely on third-party manufacturers and other third parties for production of our drug products and our dependence on these manufacturers may impair the continued development and commercialization of our products and product candidates.

Although we own a biologics manufacturing facility located in Bothell, Washington, we rely and expect to continue to rely on corporate collaborators and contract manufacturing organizations to supply drug product for commercial supply and our IND-enabling studies and clinical trials.

For the monoclonal antibody used in ADCETRIS, we have contracted with AbbVie for clinical and commercial supplies. For the drug linker used in ADCETRIS, we have contracted with Millipore Sigma, an affiliate of Merck KGaA, for clinical and commercial supplies. We have multiple contract manufacturers for conjugating the drug linker to the antibody and producing the ADCETRIS product. We rely on Astellas to supply PADCEV for our clinical trials and for commercial sale, and Astellas oversees the manufacturing supply chain for PADCEV. With respect to TUKYSA, we rely on multiple contract manufacturers and other third parties to perform manufacturing services for us including Sterling Pharma Solutions Limited for production of the starting materials for TUKYSA, Esteve Quimica to produce the active pharmaceutical ingredient, Hovione to complete spray drying and Corden Plankstadt to produce the tablets for TUKYSA. We have entered into commercial supply agreements with each of Sterling, Esteve Quimica and Corden, and are in the process of negotiating a commercial supply agreement with Hovione. For the foreseeable future, we expect to continue to rely on contract manufacturers and other third parties to produce and store sufficient quantities of ADCETRIS and TUKYSA, and on Astellas and other third parties to produce and store sufficient quantities of PADCEV, for use in our clinical trials and for commercial sale. If our contract manufacturers, collaborators or other third parties fail to deliver our products for clinical use or sale on a timely basis, with sufficient quality, and at commercially reasonable prices, and we fail to find replacement manufacturers or to develop our own manufacturing capabilities, we may bear costly losses or be required to delay or suspend clinical trials or otherwise discontinue development, production

and sale of our products. With respect to TUKYSA specifically, we have limited prior experience as an organization manufacturing TUKYSA and small molecule drug products generally, and have relatively new working relationships with many of the third-party manufacturers involved in TUKYSA manufacture. These factors increase the chance that we could encounter manufacturing challenges that could increase our costs, cause delays or otherwise negatively impact our business. Moreover, there are a limited number of facilities in which each of our products can be produced, and any interruption of the operation of those facilities due to the risks and evolving effects of the COVID-19 pandemic or other events such as equipment malfunction or failure or damage to the facility by natural disasters or as the result of regulatory actions or contractual disputes could result in the cancellation of shipments, loss of product in the manufacturing process, a shortfall in product supply, or limit our or our collaborators' ability to sell our products. Further, we and our collaborators depend on outside vendors for the supply of raw materials used to produce our products. If the third-party suppliers were to cease production or otherwise fail to supply us or our collaborators with quality raw materials and we or our collaborators were unable to contract on acceptable terms for these raw materials with alternative suppliers, our ability to have our products manufactured to meet clinical and commercial requirements would be adversely affected. While we believe that the existing supplies of PADCEV and Astellas' contract manufacturing relationships will be sufficient to accommodate current clinical and commercial needs, we or Astellas may need to obtain additional manufacturing arrangements or increase manufacturing capability to meet potential future commercial needs with respect to PADCEV, which could require additional capital investment by us or cause us potential delays if Astellas encounters challenges in negotiating commercially reasonable arrangements with these manufacturers. While we believe that the existing supplies of TUKYSA will be sufficient to accommodate current clinical and forecasted commercial needs at this time, we expect that we will need to put in place additional manufacturing arrangements or expand our current manufacturing arrangements with third-party manufacturers to meet potential future commercial needs and while we are currently negotiating those arrangements, we cannot assure you that we can enter into such arrangements on commercially reasonable terms or at all. Forecasting demand for a new product can be challenging and in the event demand for TUKYSA exceeds our estimates or in the event that our commercial manufacturers of TUKYSA encounter unexpected failures or setbacks in completing manufacturing services in accordance with applicable quality standards, our TUKYSA launch in the U.S. could be negatively impacted by short-term product supply challenges, which would adversely impact our TUKYSA revenues and could negatively affect our relationships with patients and healthcare professionals. In addition, any failures or delays in manufacturing adequate product supplies and in putting in place or expanding our manufacturing and supply infrastructure could delay or impede our and Merck's ability to launch and commercialize TUKYSA in any markets outside the U.S. where TUKYSA has obtained regulatory approval and any additional markets where it may obtain regulatory approval, if any. While we do not currently anticipate disruptions to the supply of our products due to the evolving effects of the COVID-19 pandemic, if the COVID-19 pandemic continues for an extended period of time or the effects of the COVID-19 pandemic become more severe, or any of the parties in our supply chain are adversely impacted by the evolving effects of the COVID-19 pandemic, such as staffing shortages, productions slowdowns and/or disruptions in delivery systems, then there could be disruptions to our supply chain and operations, and associated delays in the manufacturing and supply of our products. Any supply disruptions would adversely impact our ability to generate sales of and revenues from our products, and our business, financial condition, results of operations and growth prospects could be materially adversely affected. Further, in connection with the COVID-19 pandemic and in an effort to increase the wider availability of needed medical and other supplies and products, we and our third-party suppliers may elect to or governments may require us or our third-party suppliers to allocate raw materials used in manufacturing or manufacturing capacity (for example pursuant to the U.S. Defense Production Act) in a way that adversely affects our ability to have our products manufactured to meet clinical and commercial requirements.

For the clinical supply of our product candidates, we rely, and expect for the foreseeable future to continue to rely, on multiple contract manufacturers and other third parties to perform manufacturing services for us. If these third-party manufacturers cease or interrupt production, fail to supply satisfactory materials, products or services for any reason or experience performance delays or quality concerns, or if materials or products are lost in transit or in the manufacturing process, such challenges or interruptions could substantially impact clinical trial drug supply, with the potential for additional costs, delays and an adverse effect on our business. With respect to tisotumab vedotin, we currently rely on drug product supply provided by Genmab and have little control over their supply chains or the contract manufacturers they utilize. For the near-term, we expect to continue to rely on Genmab for manufacturing of clinical supplies of tisotumab vedotin. Under the commercialization agreement we entered into with Genmab in October 2020, we will be responsible for overseeing the clinical and commercial manufacturing supply chain of tisotumab vedotin following a transition period. We will need to obtain appropriate manufacturing arrangements and increase manufacturing capability to meet potential future commercial needs, and could experience potential delays if we encounter challenges in negotiating commercially reasonable arrangements with manufacturers or in transitioning oversight of the manufacturing process from Genmab to us.

In order to obtain regulatory approval of any product candidate or regulatory approval for any product in a new jurisdiction, we or our supplier or suppliers for that product or product candidate must obtain approval to manufacture and supply product, in some cases based on qualification data provided as part of a BLA, a New Drug Application, or NDA, or another application for regulatory approval. In addition, the manufacturing facilities utilized to manufacture the product or product candidate will be subject to pre-approval regulatory inspections. Any delay in generating, or failure to generate, data required in connection with submission of the chemistry, manufacturing and controls, or CMC, portions of any BLA, NDA or other application for regulatory approval, or challenges in the regulatory inspection process, could negatively impact our ability to meet our anticipated submission dates, result in delay in any approval decisions and/or negatively affect our ability to obtain regulatory approval at all. Any failure of us, our collaborators or a manufacturer to obtain approval from a regulatory authority to manufacture and supply product or any delay in obtaining and distributing adequate supplies of a newly-approved product, including PADCEV and TUKYSA, on a timely basis or in accordance with applicable specifications and local requirements could negatively impact our ability to successfully launch and commercialize the applicable product or product candidate and to generate sales of that product or product candidate at the levels we expect. We or our collaborators may also encounter difficulties in meeting the regulatory requirements applicable to the manufacturing process for these agents, in managing the additional complexity of manufacturing for a number of markets outside the U.S. or in responding to changes in the amount or timing of supply needs. Any failures or delays to meet these requirements could substantially delay or impede our ability to obtain regulatory approvals for and to market these agents, which could negatively impact our operating results and adversely affect our business.

To date, we have depended on a small number of collaborators for a substantial portion of our revenue. The loss of any one of these collaborators or changes in their product development or business strategy could result in a material decline in our revenue.

We have collaborations with a limited number of companies. To date, a substantial portion of our revenue has resulted from payments made under agreements with our corporate collaborators, and although ADCETRIS sales currently comprise a greater proportion of our revenue, we expect that a portion of our revenue will continue to come from corporate collaborations. Even though we market ADCETRIS in the U.S. and Canada, our revenues still depend in part on Takeda's ability to market ADCETRIS outside of the U.S. and Canada. Likewise, even though we market TUKYSA in the U.S., our revenues will still depend in part on Merck's ability and willingness to market TUKYSA outside of the U.S., Canada and Europe. In addition, under our agreements with Astellas, we and Astellas bear the costs of their own sales organizations in the U.S., equally share certain other costs associated with commercializing PADCEV in the U.S. and equally share in any profits realized in the U.S. The loss of our collaborators, especially Takeda or Astellas, changes in product development or business strategies of our collaborators, or the failure of our collaborators to perform their obligations under their agreements with us for any reason, including paying license or technology fees, milestone payments, royalties or reimbursements, could have a material adverse effect on our financial performance. Payments under our existing and potential future collaboration agreements are also subject to significant fluctuations in both timing and amount, which could cause our revenue to fall below the expectations of securities analysts and investors and cause a decrease in our stock price.

We are dependent upon a small number of distributors for a significant portion of our net sales, and the loss of, or significant reduction or cancellation in sales to, any one of these distributors could adversely affect our operations and financial condition.

We sell ADCETRIS and PADCEV through a limited number of specialty distributors. Healthcare providers order ADCETRIS and PADCEV through these distributors. We receive orders from distributors and generally ship product directly to the healthcare provider. We sell TUKYSA through a distribution network of specialty pharmacies, integrated delivery network hospitals and practices that dispense in the office. These distributors and distribution network partners do not set or determine demand for our products; however, our ability to effectively commercialize our products will depend, in part, on their performance. Although we believe we can find alternative distributors and partners on relatively short notice, the loss of a major distributor or partner could materially and adversely affect our results of operations and financial condition. In addition, business disruptions arising from the COVID-19 pandemic could negatively affect the ability of some of our distributors or distribution network partners to pay amounts owed to us in a timely manner or at all.

Risks Related to Our Intellectual Property

If we are unable to enforce our intellectual property rights or if we fail to sustain and further procure additional intellectual property rights, we may not be able to successfully commercialize our products or any future products and competitors may be able to develop competing therapies.

Our success depends, in part, on obtaining and maintaining patent protection and successfully enforcing these patents and defending them against third-party challenges in the U.S. and other countries. We own multiple U.S. and foreign patents and pending patent applications for our technologies. We also have rights to issued U.S. patents, patent applications, and their foreign counterparts, relating to our monoclonal antibody, linker and drug-based technologies. Our rights to these patents and patent applications are derived in part from worldwide licenses from third parties. In addition, we have licensed certain of our U.S. and foreign patents and patent applications to third parties.

The standards that the U.S. Patent and Trademark Office, or USPTO, and foreign patent offices use to grant patents are not always applied predictably or uniformly and can change. Consequently, our pending patent applications may not be allowed and, if allowed, may not contain the type and extent of patent claims that will be adequate to conduct our business as planned. Additionally, any issued patents we currently own or obtain in the future may have a shorter patent term than expected or may not contain claims that will permit us to stop competitors from using our technology or similar technology or from copying our products. Similarly, the standards that courts use to interpret patents are not always applied predictably or uniformly and may evolve, particularly as new technologies develop. In addition, changes to patent laws in the U.S. or other countries may be applied retroactively to affect the validity, enforceability, or term of our patent. For example, the U.S. Supreme Court has modified some legal standards applied by the USPTO in examination of U.S. patent applications, which may decrease the likelihood that we will be able to obtain patents and may increase the likelihood of challenges to patents we obtain or license. In addition, changes to the U.S. patent system have come into force under the Leahy-Smith America Invents Act, or the America Invents Act, including changes from a "first-to-invent" system to a "first to file" system, changes to examination of U.S. patent applications and changes to the processes for challenging issued patents. These changes include provisions that affect the way patent applications are being filed, prosecuted and litigated. For example, the America Invents Act enacted proceedings involving post-issuance patent review procedures, such as inter partes review, or IPR, and post-grant review and covered business methods. These proceedings are conducted before the Patent Trial and Appeal Board, or PTAB, of the USPTO. Each proceeding has different eligibility criteria and different patentability challenges that can be raised. In this regard, the IPR process permits any person (except a party who has been litigating the patent for more than a year) to challenge the validity of some patents on the grounds that it was anticipated or made obvious by prior art. As a result, non-practicing entities associated with hedge funds, pharmaceutical companies who may be our competitors and others have challenged certain valuable pharmaceutical U.S. patents based on prior art through the IPR process. A decision in such a proceeding adverse to our interests could result in the loss of valuable patent rights which would have a material adverse effect on our business, financial condition, results of operations and growth prospects. In any event, the America Invents Act and any other potential future changes to the U.S. patent system could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business, financial condition, results of operations and growth prospects. In addition, we rely on external agents to perform certain activities to maintain our patents. Although we carefully select and oversee

these agents, the failure of an agent to properly perform these maintenance activities, whether through mistake or otherwise, could adversely affect our intellectual property rights.

We rely on trade secrets and other proprietary information where we believe patent protection is not appropriate or obtainable. However, trade secrets and other proprietary information are difficult to protect. We have taken measures to protect our unpatented trade secrets and know-how, including the use of confidentiality and assignment of inventions agreements with our employees, consultants and certain contractors. It is possible, however, that these persons may breach the agreements or that our competitors may independently develop or otherwise discover our trade secrets or other proprietary information. Our research collaborators may publish confidential data or other restricted information to which we have rights. If we cannot maintain the confidentiality of our technology and other confidential information in connection with our collaborations, then our ability to receive patent protection or protect our proprietary information may be impaired.

We have been and may in the future be subject to litigation, which could result in substantial damages and may divert management's time and attention from our business.

We are engaged in multiple legal disputes with Daiichi Sankyo Co. Ltd., or Daiichi Sankyo. We are in a dispute with Daiichi Sankyo regarding the ownership of certain technology used by Daiichi Sankyo in its cancer drug ENHERTU and certain product candidates. Arbitration relating to the dispute is progressing with a hearing date scheduled starting June 14, 2021. In addition, we filed a complaint in the U.S. District Court for the Eastern District of Texas to commence an action for infringement of our U.S. Patent No. 10,808,039, or the '039 Patent, by Daiichi Sankyo's importation into, offer for sale, sale, and use in the U.S. of ENHERTU. Daiichi Sankyo (as well as Daiichi Sankyo, Inc. and AstraZeneca Pharmaceuticals, LP, or AstraZeneca) subsequently filed an action in the U.S. District Court for the District of Delaware seeking a declaratory judgment that ENHERTU does not infringe the '039 Patent. Daiichi Sankyo, Inc. and AstraZeneca also filed two Petitions for Post-Grant Review with the U.S. Patent Office seeking to have claims of the '039 Patent cancelled as unpatentable. As a result of these disputes, we have incurred and will continue to incur litigation expenses. In addition, from time to time, we may become involved in other lawsuits, claims and proceedings relating to the conduct of our business, including but not limited to those pertaining to the defense and enforcement of our patent or other intellectual property rights and our contractual rights.

These and other potential future litigations are subject to inherent uncertainties, and the actual costs to be incurred relating to litigations may be impacted by unknown factors. The outcome of litigation is necessarily uncertain, and we could be forced to expend significant resources in the course of these and potential future litigations, we may be subject to additional claims and counterclaims that may result in liabilities or require us to take or refrain from certain actions, and we may not prevail. Monitoring, defending against and pursuing legal actions can be time-consuming for our management and detract from our ability to fully focus our internal resources on our business activities, which could result in delays of our clinical trials or our development and commercialization efforts. In addition, we may incur substantial legal fees and costs in connection with these and potential future litigations. Decisions adverse to our interests in these and potential future litigations could result in the payment of substantial damages, or possibly fines, or affect our intellectual property rights and could have a material adverse effect on our cash flow, results of operations and financial position. Successful challenges to our patent or other intellectual property rights could result in a loss of rights in the relevant jurisdiction and may allow third parties to use our proprietary technologies without a license from us or our collaborators. In addition, the uncertainty associated with litigation could lead to increased volatility in our stock price.

We and our collaborators rely on license agreements for certain aspects of our products and product candidates and technologies such as our ADC technology. Failure to maintain these license agreements or to secure any required new licenses could prevent us from continuing to develop and commercialize our products and product candidates.

We have entered into agreements with third-party commercial and academic institutions to license technology for use in ADCETRIS, TUKYSA, our product candidates and technologies such as our ADC technology. Currently, we have license agreements with BMS, the University of Miami and Array BioPharma, Inc., among others. In addition to royalty provisions and other payment obligations, some of these license agreements contain diligence and milestone-based termination provisions, in which case our failure to meet any agreed upon royalty or diligence requirements or milestones may allow the licensor to terminate the agreement. Many of our license agreements grant us exclusive licenses to the underlying technologies. In addition, Astellas has agreements to license technology for use in PADCEV. We rely on Astellas to maintain these license agreements. If Astellas fails to maintain these license agreements, if our licensors terminate our license agreements or if we or our collaborators are unable to maintain the exclusivity of our exclusive license agreements, we may be unable to continue to develop and commercialize our products or product candidates. Further, we have had in the past, and we or our collaborators may in the future have, disputes with our licensors, which may impact our ability to develop and commercialize our products or product candidates or require us to enter into additional licenses. An adverse result in potential future disputes with our or our collaborators' licensors may impact our ability to develop and commercialize our products and product candidates, or may require us to enter into additional licenses or to incur additional costs in litigation or settlement. In addition, continued development and commercialization of our products and product candidates will likely require us to secure licenses to additional technologies. We may not be able to secure these licenses on commercially reasonable terms, if at all.

We may incur substantial costs and lose important rights or may not be able to continue to commercialize our products or to commercialize any of our product candidates that may be approved for commercial sale as a result of litigation or other proceedings relating to patent and other intellectual property rights, and we may be required to obtain patent and other intellectual property rights from others.

We may face potential lawsuits by companies, academic institutions or others alleging infringement of their intellectual property. Because patent applications can take a few years to publish, there may be currently pending applications of which we are unaware that may later result in issued patents that adversely affect the continued commercialization of our products or future commercialization of our product candidates. In addition, we are monitoring the progress of multiple pending patent applications of other organizations that, if granted, may require us to license or challenge their enforceability in order to continue commercializing our products or to commercialize our product candidates that may be approved for commercial sale. Our challenges to patents of other organizations may not be successful, which may affect our ability to commercialize our products or product candidates. As a result of the patent infringement lawsuits that have been filed or may be filed against us in the future by third parties alleging infringement by us of patent or other intellectual property rights, we may be required to pay substantial damages, including lost profits, royalties, treble damages, attorneys' fees and costs, for past infringement if it is ultimately determined that our products infringe a third-party's intellectual property rights. Even if infringement claims against us are without merit, the results may be unpredictable. In addition, defending lawsuits takes significant time, may be expensive and may divert management's attention from other business concerns. Further, we may be stopped from developing, manufacturing or selling our products until we obtain a license from the owner of the relevant technology or other intellectual property rights, or be forced to undertake costly design-arounds, if feasible. If such a license is available at all, it may require us to pay substantial royalties or other fees.

We are or may be from time to time involved in the defense and enforcement of our patent or other intellectual property rights in a court of law, USPTO interference, IPR, post-grant review or reexamination proceeding, foreign opposition proceeding or related legal and administrative proceeding in the U.S. and elsewhere. In addition, if we choose to go to court to stop a third party from infringing our patents, that third party has the right to ask the court to rule that these patents are invalid, not infringed and/or should not be enforced. Under the America Invents Act, a third party may also have the option to challenge the validity of certain patents at the PTAB, whether they are accused of infringing our patents or not, and certain entities associated with hedge funds, pharmaceutical companies and other entities have challenged valuable pharmaceutical patents through the IPR process. 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, there is a risk that a court will decide that these patents are not valid or not infringed or otherwise not enforceable, or that the PTAB will decide that certain patents are not valid, and that we do not have the right to stop a third party from using the patented subject matter. Successful challenges to our patent or other intellectual property rights through these proceedings could result in a loss of rights in the relevant jurisdiction and may allow third parties to use our proprietary technologies without a license from us or our collaborators, which may also result in loss of future royalty payments. Furthermore, if such challenges to our rights are not resolved promptly in our favor, our existing business relationships may be jeopardized and we could be delayed or prevented from entering into new collaborations or from commercializing potential products, which could adversely affect our business and results of operations. In addition, we may challenge the patent or other intellectual property rights of third parties and if we are unsuccessful in actions we bring against the rights of such parties, through litigation or otherwise, and it is determined that we infringe the intellectual property rights of such parties, we may be prevented from commercializing potential products in the relevant jurisdiction, or may be required to obtain licenses to those rights or develop or obtain alternative technologies, any of which could harm our business.

Risks Related to Our Operations, Managing Our Growth and Other Risks

Our business is currently being adversely affected and could be materially and adversely affected in the future by the evolving effects of the COVID-19 pandemic as a result of the current and potential future impacts on our commercialization efforts, supply chain, regulatory and clinical development activities and other business operations, in addition to the impact of a global economic slowdown.

Our business is currently being adversely affected and could be materially and adversely affected in the future by the evolving effects of the COVID-19 pandemic. In accordance with guidance issued by the Centers for Disease Control and Prevention, the World Health Organization and local authorities, beginning in March 2020, we implemented a mandatory work-from-home policy for employees who can perform their jobs offsite. Our essential research, manufacturing and laboratory activities are ongoing, and we maintain a number of additional precautionary measures to protect these onsite employees, such as temperature checks, screening protocols, masks, social distancing, contact tracing and making testing available. However, if we are unable to obtain adequate supplies of personal protective equipment due to shortages or encounter other challenges related to the evolving COVID-19 pandemic, we may have to place or may experience additional limitations on our in person activities. In addition, our increased reliance on personnel working from home may negatively impact productivity or disrupt, delay or otherwise adversely impact our business. This could also increase our cybersecurity risk, create data accessibility concerns and make us more susceptible to communication disruptions, any of which could adversely impact our business operations. In addition, our oversight of third-party manufacturers is currently being conducted by virtual means, which may increase the chance of a manufacturing quality issue. Impacts related to the COVID-19 pandemic could materially and adversely affect our business, our ability to generate sales of and revenues from our approved products, and our ability to advance the development of our products and product candidates, as described elsewhere in this “Risk Factors” section. The magnitude of such impacts will depend, in large part, on the ultimate duration and severity of the evolving effects of the COVID-19 pandemic.

The effects of the COVID-19 pandemic continue to rapidly evolve. These effects have increased market volatility and could result in a significant long-term disruption of global financial markets, reducing our ability to access capital, which could in the future negatively affect our liquidity. In addition, the current recession or additional market corrections resulting from the effects of the COVID-19 pandemic could materially affect our business and the value of our common stock. The extent to which the evolving effects of the COVID-19 pandemic impact our business, our ability to generate sales of and revenues from our approved products, and our clinical development and regulatory efforts will depend on future developments that are highly uncertain and cannot be predicted with confidence, such as the ultimate duration and severity of the pandemic, government actions, such as travel restrictions, quarantines and social distancing requirements in the U.S. and in other countries, business closures or business disruptions and the effectiveness of actions taken in the U.S. and in other countries to contain and treat the disease, including the effectiveness and timing of vaccination programs in the U.S. and worldwide. Accordingly, we do not yet know the full extent of potential delays or impacts on our business, sales of our products, our clinical and regulatory activities, our research programs, healthcare systems or the global economy as a whole. However, these effects could materially and adversely affect our business, financial condition, results of operations and growth prospects. In addition, to the extent the evolving effects of the COVID-19 pandemic adversely affect our business, financial condition, results of operations and growth prospects, they may also have the effect of heightening many of the other risks and uncertainties described elsewhere in this "Risk Factors" section. It is also possible that future global pandemics could also occur and also materially and adversely affect our business, financial condition, results of operations and growth prospects.

If we are unable to manage our growth, our business, financial condition, results of operations and prospects may be adversely affected.

We have experienced and expect to continue to experience significant growth in the number of our employees and in the scope of our operations, including in connection with our transition into a multi-product oncology company, our operation of a manufacturing facility and our continuing international expansion. In this regard, the anticipated continued growth of ADCETRIS, the continued launch and commercialization of PADCEV and TUKYSA in the U.S., the anticipated launch and commercialization of TUKYSA in Europe and the potential launch and commercialization of any other future approved products may require expansion of our sales force and commercial organization. We may need to commit significant additional funds, management and other resources to the growth of our commercial organization. In addition, our expansion in Europe also requires the expansion of other functions, including clinical development, drug safety, quality, finance and compliance. We may not be able to achieve any necessary growth in a timely or cost-effective manner or realize a positive return on our investment, and we may not have the financial resources to achieve the necessary growth in a timely manner or at all, any of which could negatively impact our ability to successfully launch and commercialize a newly-approved product and harm the commercial potential of our current and any future approved products. In any event, this rapid growth and additional complexity places significant demands on our management, operational and financial resources, and our current and planned personnel, systems, procedures and controls may not be adequate to support our growth. In particular, we are using new distribution channels for TUKYSA that require us to implement additional control systems to monitor inventory that has been purchased by specialty pharmacies and not yet dispensed to patients. A failure to correctly implement and monitor these new control systems could result in a control failure or error in our financial accounting. In addition, this growth places significant demands on our third party suppliers and they may not have the resources and personnel to adequately support our commercial plans and launch needs, including in regions outside the U.S. To effectively manage our growth, we must continue to improve existing, and implement new, operational and financial systems, procedures and controls and must expand, train and manage our growing employee base, and there can be no assurance that we will effectively manage our growth without experiencing operating inefficiencies, control deficiencies, compliance issues or other problems. We expect that we may need to increase our management personnel to oversee our expanding operations, and recruiting and retaining qualified individuals is difficult. Likewise, we could experience limitations on our ability to recruit, hire and retain personnel at all levels of the organization as a result of the COVID-19 pandemic, and without reductions in the pace, scale or complexity of our business, this could result in strain on our staff, loss of talent, failure to capitalize fully on opportunities, control deficiencies and other challenges, which could adversely affect our business, financial condition, results of operations and prospects. In addition, the physical expansion of our operations may lead to significant costs and may divert our management and capital resources. If we are unable to manage our growth effectively, or are unsuccessful in recruiting and retaining qualified management personnel, our business, financial condition, results of operations and prospects may be adversely affected.

Risks associated with our expanding operations in countries outside the U.S. could materially adversely affect our business.

We are expanding our operations internationally. We have an expanding number of subsidiaries in jurisdictions outside the U.S., including multiple subsidiaries in Europe, and we are building a commercial infrastructure in Europe and expanding our commercial infrastructure in Canada. Consequently, we are, and will increasingly be, subject to risks related to operating internationally. Risks associated with conducting operations internationally include:

- the increased complexity and costs inherent in managing international operations, including in geographically disparate locations;
- diverse regulatory, drug safety, drug supply, financial and legal requirements, and any future changes to such requirements, in one or more countries where we are located or do business;
- differing payor reimbursement regimes, governmental payors or patient self-pay systems and price controls;
- adverse tax consequences, including changes in applicable tax laws and regulations;
- applicable trade laws, tariffs, export quotas, custom duties or other trade restrictions, and any changes to them;
- economic weakness, including inflation, or political or economic instability in particular economies and markets outside the U.S.;
- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- currency fluctuations, which could result in increased operating expenses or reduced revenues, and other obligations incident to doing business or operating in another country;
- liabilities for activities of, or related to, our international operations;
- challenges inherent in efficiently managing employees in diverse geographies, including the need to adapt systems, policies, benefits and compliance programs to differing labor and other regulations and different languages;
- reliance on vendors who are located far from our headquarters and with whom we have not worked previously;
- workforce uncertainty in countries where labor unrest is more common than in the U.S.; and
- laws and regulations relating to data security and the unauthorized use of, or access to, commercial and personal information.

As a result of our expanding international operations, including potentially with respect to our commercial presence in Europe and expanding commercial infrastructure in Canada, our business and corporate structure has and will become substantially more complex. In addition, as a business, we do not have significant experience conducting operations outside of the U.S. and Canada. There can be no assurance that we will effectively manage the increased complexity and broader scope of our operations without experiencing operating inefficiencies, control deficiencies, compliance issues or other problems. Significant management time and effort will be required to effectively manage the increasing complexity and broader scope of our operations, and our failure to successfully do so could have a material adverse effect on our business, financial condition, results of operations and growth prospects. Further, since a portion of the regulatory framework in the U.K. is derived from EU directives and regulations, Brexit, has had, and will continue to have, an impact upon the regulatory regime applicable to potential future marketing authorizations for ADCETRIS, PADCEV, TUKYSA and our product candidates. In particular, Great Britain is no longer covered by the centralized procedures for obtaining EU-wide marketing authorization from the European Medicines Agency, and a separate marketing authorization will be required to market our product candidates in Great Britain. In addition, it is unclear what additional financial, trade, regulatory and legal implications the withdrawal of the U.K. from the EU. may have on us. These and other risks described elsewhere in these risk factors associated with expanding our international operations could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

We have engaged in, and may in the future engage in, strategic transactions that increase our capital requirements, dilute our stockholders, cause us to incur debt or assume contingent liabilities and subject us to other risks.

We actively evaluate various strategic transactions on an ongoing basis, including licensing or otherwise acquiring complementary products, technologies or businesses. Any potential future acquisitions or in-licensing transactions entail numerous risks, including but not limited to:

- risks associated with satisfying the closing conditions relating to such transactions and realizing their anticipated benefits;
- increased operating expenses and cash requirements;
- difficulty integrating acquired technologies, products, operations, and personnel with our existing business;
- the potential disruption of our historical core business;
- diversion of management's attention in connection with both negotiating the acquisition or license and integrating the business, technology or product;
- retention of key employees;
- difficulties in assimilating employees and corporate cultures of any acquired companies;
- uncertainties in our ability to maintain key business relationships of any acquired companies;
- strain on managerial and operational resources;
- difficulty implementing and maintaining effective internal control over financial reporting at businesses that we acquire, particularly if they are not located near our existing operations;
- exposure to unanticipated liabilities of acquired companies or companies in which we invest;
- the potential need to write down assets or recognize impairment charges; and
- potential costly and time-consuming litigation, including stockholder lawsuits.

As a result of these or other problems and risks, businesses, technologies or products we acquire or invest in or obtain licenses to may not produce the revenues, earnings or business synergies that we anticipated, acquired or licensed product candidates or technologies may not result in regulatory approvals, and acquired or licensed products may not perform as expected. As a result, we may incur higher costs and realize lower revenues than we had anticipated. We cannot assure you that any acquisitions or investments we have made or may make in the future will be completed or that, if completed, the acquired business, licenses, investments, products, or technologies will generate sufficient revenue to offset the negative costs or other negative effects on our business. Failure to manage effectively our growth through acquisitions or in-licensing transactions could adversely affect our growth prospects, business, results of operations, financial condition, and cash flow.

In addition, we may spend significant amounts, issue dilutive securities, assume or incur significant debt obligations, incur large one-time expenses and acquire intangible assets or goodwill in connection with acquisitions and in-licensing transactions that could result in significant future amortization expense and write-offs. Moreover, we may not be able to locate suitable acquisition opportunities and this inability could impair our ability to grow or obtain access to technology or products that may be important to the development of our business. Other pharmaceutical companies, many of which may have substantially greater financial, marketing and sales 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, and if pursued, we may be unable to structure and execute transactions in the anticipated timeframe, or at all.

Even if we are able to successfully identify and acquire complementary products, technologies or businesses, we cannot assure you that we will be able to successfully manage the risks associated with integrating acquired products, technologies or businesses or the risks arising from anticipated and unanticipated problems in connection with an acquisition or in-licensing transaction. 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 and adversely affect our results of operations and financial condition. Additionally, we may not realize the anticipated benefits of such transactions, including the possibility that expected synergies and accretion will not be realized or will not be realized within the expected time frame.

If we lose our key personnel or are unable to attract and retain additional qualified personnel, our future growth and ability to compete would suffer.

We are highly dependent on the efforts and abilities of the principal members of our senior management. Additionally, we have scientific personnel with significant and unique expertise in monoclonal antibodies, ADCs and related technologies, and TUKYSA. The loss of the services of any one of the principal members of our managerial or scientific staff may prevent us from achieving our business objectives.

In addition, the competition for qualified personnel in the biotechnology field is intense, and our future success depends upon our ability to attract, retain and motivate highly skilled scientific, technical and managerial employees. In order to continue to commercialize our products, and advance the development and commercialization of our additional product candidates, we will be required to expand our workforce, particularly in the areas of manufacturing, clinical trials management, regulatory affairs, business development, sales and marketing, both in the U.S. and in Europe. We continue to face intense competition for qualified individuals from numerous pharmaceutical and biotechnology companies, as well as academic and other research institutions, and with increasing reliance on remote work arrangements, the geographic market in which we compete for talent is expanding. Our failure to compete effectively in this area could negatively affect our sales of our current and any future approved products. To the extent we are not able to retain these individuals on favorable terms or attract any additional personnel that may be required, our business may be harmed. For example, we may not be successful in attracting or retaining key personnel necessary to effectively commercialize PADCEV and TUKYSA, build and operate a commercial infrastructure in Europe or to support the potential launch and commercialization of our product candidates, alone or jointly with our collaborators, if we receive regulatory approval. If our commercial organization is not appropriately sized or equipped to adequately market our current and any future approved products, the commercial potential of our current and any future approved products may be diminished, and our business and prospects for profitability may be adversely affected.

If we experience a significant disruption in our information technology systems or breaches of data security, our business could be adversely affected.

We rely on information technology systems to keep financial records, capture laboratory data, maintain clinical trial data, commercial sales data and corporate records, communicate with staff and external parties and operate other critical functions. The effects of the COVID-19 pandemic have intensified our dependence on information technology systems as many of our critical business activities are currently being conducted remotely and our increased reliance on personnel working from home could increase our cybersecurity risk. Our information technology systems are potentially vulnerable to disruption due to breakdown, malicious intrusion and computer viruses or other disruptive events including but not limited to natural disaster. If we were to experience a prolonged system disruption in our information technology systems or those of certain of our vendors, it could delay or negatively impact the development and commercialization of our products and product candidates, which could adversely impact our business. Although we maintain offsite back-ups of our data, if operations at our facilities were disrupted, it may cause a material disruption in our business if we are not capable of restoring function on an acceptable timeframe. In addition, our information technology systems are potentially vulnerable to data security breaches, whether by employees or others, which may expose sensitive or personal data to unauthorized persons. Such data security breaches could lead to the loss of trade secrets or other intellectual property, or could lead to the public exposure of personal information (including sensitive personal information) of our employees, patients in our clinical trials, customers and others, any of which could have a material adverse effect on our business, financial condition and results of operations. Moreover, a security breach or privacy violation that leads to destruction, loss, alteration, unauthorized use or access, disclosure or modification of, personally identifiable information or personal

data, could harm our reputation, compel us to comply with federal, state and/or international breach notification laws, subject us to mandatory corrective or regulatory action, require us to verify the correctness of database contents and otherwise subject us to liability under laws and regulations that protect personal data, including the GDPR, which could disrupt our business, result in increased costs or loss of revenue, and/or result in significant legal and financial exposure. In addition, a data security breach could result in loss of clinical trial data or damage to the integrity of that data. If we are unable to implement and maintain adequate organizational and technical measures to prevent such security breaches or privacy violations, or to respond adequately in the event of a breach, our operations could be disrupted, and we may suffer loss of reputation, problems with regulatory authorities, financial loss and other negative consequences. Moreover, failure to maintain effective internal accounting controls related to data security breaches and cybersecurity in general could impact our ability to produce timely and accurate financial statements and could subject us to regulatory scrutiny. In addition, security breaches and other inappropriate access can be difficult to detect, and any delay in identifying them may lead to increased harm of the type described above.

Risks Related to Our Financial Condition and Capital Requirements

Our operating results are difficult to predict and may fluctuate. If our operating results are below the expectations of securities analysts or investors, the trading price of our stock could decline.

Our operating results are difficult to predict and may fluctuate significantly from quarter to quarter and year to year. As a result, although we provide product sales guidance from time to time, you should not rely on product sales results in any period as being indicative of future performance. In addition, such guidance is based on assumptions that may be incorrect or that may change from quarter to quarter, and it may be particularly difficult to correctly forecast product sales for newly-approved products or in indications for existing products for which we have recently received marketing approval. Moreover, our product sales have, on occasion, been below the expectations of securities analysts and investors and have been below prior period sales, and our sales in the future may also be below prior period sales, our own guidance and/or the expectations of securities analysts and investors. To the extent that we again do not meet our guidance or the expectations of analysts or investors, our stock price may be adversely impacted, perhaps significantly. We believe that our quarterly and annual results of operations may be affected by a variety of factors, including:

- customer ordering patterns for our products, which may vary significantly from period to period;
- the overall level of demand for our products, including the impact of any competitive or biosimilar products and the duration of therapy for patients treated with our products;
- the extent to which coverage and reimbursement for our products is available from government and health administration authorities, private health insurers, managed care programs and other third-party payors;
- our ability to establish or demonstrate in the medical community the safety, efficacy or value of our products and their potential advantages compared to existing and future therapies in their approved indications, including in ADCETRIS' frontline Hodgkin lymphoma and frontline PTCL indications, PADCEV's FDA approved indication and TUKYSA's FDA approved indication;
- changes in the amount of deductions from gross sales, including government-mandated rebates, chargebacks and discounts that can vary because of changes to the government discount percentage, including increases in the government discount percentage resulting from price increases we have taken or may take in the future, or due to different levels of utilization by entities entitled to government rebates and discounts and changes in patient demographics;
- increases in the scope of eligibility for customers to purchase our products at the discounted government price or to obtain government-mandated rebates on purchases of our products;
- changes in our cost of sales due to potential new product launches, royalties owed under technology license agreements or write-offs of inventory;
- the incidence rate of new patients in the approved indications for our products;

- the evolving effects of the COVID-19 pandemic, including those leading to current and potential future reductions in the rate of cancer diagnoses;
- the timing, cost and level of investment in our sales and marketing efforts to support our products sales;
- the timing, cost and level of investment in our research and development, pre-commercialization and other activities involving ADCETRIS, PADCEV, TUKYSA, tisotumab vedotin and our other product candidates by us or our collaborators; and
- expenditures we will or may incur to develop and/or commercialize any additional products, product candidates, or technologies that we may develop, in-license, or acquire.

In addition, even if we and/or our collaborators are able to obtain regulatory approvals for our product candidates, due to the lack of any historical sales data from the commercialization of any of our product candidates, sales of a newly-approved product such as PADCEV or TUKYSA will be difficult to predict from period to period. As a result, sales results or trends for PADCEV, TUKYSA or any of our future approved products in any period may not necessarily be indicative of future performance. In any event, if we are unable to obtain and maintain necessary or desirable regulatory approvals for our products and product candidates, including for ADCETRIS, PADCEV and TUKYSA, in a timely manner, if at all, if the FDA or other regulatory authorities do not approve product labeling that is necessary or desirable for the successful commercialization of an approved product, or if sales of an approved product do not reach the levels we expect, our anticipated revenue from our products and product candidates and our prospects for profitability would be adversely affected, which could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

Moreover, we have entered into collaboration and license agreements with other companies that include development funding and milestone and royalty payments to us, and we expect that amounts earned from our collaboration agreements will continue to be an important source of our revenues. Accordingly, our revenues will also depend on development funding and the achievement of development and clinical milestones under our existing collaboration and license agreements, including, in particular, our ADCETRIS collaboration with Takeda, our PADCEV collaboration with Astellas and our ladiratuzumab vedotin and TUKYSA collaborations with Merck, as well as entering into potential new collaboration and license agreements. These upfront and milestone payments may vary significantly from quarter to quarter and any such variance could cause a significant fluctuation in our operating results from one quarter to the next.

Further, changes in our operations, such as increased development, manufacturing and clinical trial expenses in connection with our expanding pipeline programs, or our undertaking of additional programs, or business activities, or entry into strategic transactions, including potential future acquisitions of products, technologies or businesses may also cause significant fluctuations in our expenses. In addition, we measure compensation cost for stock-based awards made to employees at the grant date of the award, based on the fair value of the award, and recognize the cost as an expense over the employee's requisite service period. As the variables that we use as a basis for valuing these awards change over time, including our underlying stock price, the magnitude of the expense that we must recognize may vary significantly. Additionally, we have implemented long-term incentive plans for our employees, and the incentives provided under these plans are contingent upon the achievement of certain regulatory milestones. Costs of performance-based compensation under our long-term incentive plans are not recorded as an expense until the achievement of the applicable milestones is deemed probable of being met, which may result in large fluctuations to the expense we must recognize in any particular period.

For these and other reasons, it is difficult for us to accurately forecast future sales of our current or any future approved products, collaboration and license agreement revenues, royalty revenues, operating expenses or future profits or losses. As a result, our operating results in future periods could be below our guidance or the expectations of securities analysts or investors, which could cause the trading price of our common stock to decline, perhaps substantially.

We have a history of net losses. We expect to continue to incur net losses and may not achieve future sustained profitability for some time, if at all.

We have incurred substantial net losses in each of our years of operation, other than the year ended December 31, 2020. We have incurred these losses principally from costs incurred in our research and development programs and from our selling, general and administrative expenses. We expect to continue to spend substantial amounts on research and development, including amounts for conducting clinical trials of our products and product candidates as well as commercializing our products for the treatment of patients in their approved indications. In addition, we expect to make substantial expenditures to further develop and potentially commercialize tisotumab vedotin and our other product candidates. We may also pursue new operations or continue the expansion of our existing operations, including with respect the development of our commercial infrastructure in Europe and our plans to otherwise continue to expand our operations internationally. Accordingly, even though we reported net income for the year ended December 31, 2020 due to the collaboration and license agreement revenues related to the agreements we entered into with Merck during 2020, we nonetheless expect to incur net losses in the future and may not achieve sustained profitability for some time, if at all. Although we recognize revenue from product sales and we continue to earn amounts under our collaboration agreements, our revenue and profit potential is unproven and our future operating results are difficult to predict. Even if we do achieve profitability in the future, we may not be able to sustain or increase profitability on a quarterly or annual basis. If we are unable to achieve and sustain profitability, the market value of our common stock will likely decline.

We may need to raise additional capital that may not be available to us.

We expect to make additional capital outlays and to increase operating expenditures over the next several years as we hire additional employees, and support our development, manufacturing, commercialization, and planned global expansion, which may require us to raise additional capital. In addition, we may pursue new operations or continue the expansion of our existing operations, including with respect to our development of a commercial infrastructure in Europe and our plans to otherwise continue to expand our operations internationally. Our commitment of resources to the continuing development, regulatory and commercialization activities for our products, the research, continued development and manufacturing of our product candidates, our pursuit of regulatory approvals for and preparing to potentially launch and commercialize our product candidates, and the anticipated expansion of our pipeline and operations may require us to raise additional capital. Further, we actively evaluate various strategic transactions on an ongoing basis, including licensing or otherwise acquiring complementary products, technologies or businesses, and we may require significant additional capital in order to complete or otherwise provide funding for such transactions. We may seek additional funding through some or all of the following methods: corporate collaborations, licensing arrangements and public or private debt or equity financings. We do not know whether additional capital will be available when needed, or that, if available, we will obtain financing on terms favorable to us or our stockholders. If we are unable to raise additional funds when we need them, we may be required to delay, reduce the scope of, or eliminate one or more of our development programs, which may adversely affect our business and operations. Our future capital requirements will depend upon a number of factors, including:

- the level of sales and market acceptance of ADCETRIS, PADCEV, TUKYSA or of any future approved products;
- the time and costs involved in obtaining regulatory approvals of our products in additional indications or territories, if any, and potentially of any of our other product candidates;
- the size, complexity, timing, progress and number of our clinical programs and our collaborations;
- the timing, receipt and amount of milestone-based payments or other revenue from our collaborations or license arrangements, including royalty revenue generated from commercial sales of ADCETRIS by Takeda, revenue generated under our collaboration with Astellas and anticipated royalty revenue generated by commercial sales of TUKYSA by Merck;
- the cost of establishing and maintaining clinical supplies of our products and product candidates and commercial supplies of our current and any future approved products;
- the extent of our investment in development, manufacturing and commercialization outside the U.S.;

- the costs associated with acquisitions or licenses of additional technologies, products, or companies as well as licenses we may need to commercialize our current or any future approved products;
- the terms and timing of any future collaborative, licensing and other arrangements that we may establish;
- expenses associated with future securities class action or derivative lawsuits, as well as any other potential litigation;
- the potential costs associated with international, state and federal taxes; and
- competing technological and market developments.

In addition, changes in our spending rate may occur that would consume available capital resources sooner, such as increased development, manufacturing and clinical trial expenses in connection with our expanding pipeline programs or our undertaking of additional programs, business activities or entry into additional strategic transactions, including potential future acquisitions of products, technologies or businesses. Moreover, we may choose to raise additional capital due to market conditions or strategic considerations, even if we believe we have sufficient funds for our current or future operating plans. To the extent that we raise additional capital by issuing equity securities, our stockholders may experience substantial dilution. To the extent that we raise additional funds through collaboration and licensing arrangements, we may be required to relinquish some rights to our technologies or product candidates, or grant licenses on terms that are not favorable to us.

During the past several years, domestic and international financial markets have experienced extreme disruption from time to time, including, among other things, high volatility and significant declines in stock prices and severely diminished liquidity and credit availability for both borrowers and investors. Such adverse capital and credit market conditions could make it more difficult to obtain additional capital on favorable terms, or at all, which could have a material adverse effect on our business and growth prospects. For example, our ability to raise additional capital may be adversely impacted by deteriorating global economic conditions and the disruptions to and volatility in the credit and financial markets in the U.S. and worldwide resulting from the evolving effects of the COVID-19 pandemic.

The potential future impairment of intangible assets and goodwill may negatively affect our results of operations and financial position.

As of December 31, 2020, we recorded $558.4 million of intangible assets, net and goodwill on our condensed consolidated balance sheet. Our intangible assets and goodwill 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.

Risks Related to Our Common Stock

Our stock price is volatile and our shares may suffer a decline in value.

The market price of our stock has in the past been, and is likely to continue in the future to be, very volatile. During the year ended December 31, 2020, our closing stock price fluctuated between $95.75 and $211.93 per share. As a result of fluctuations in the price of our common stock, you may be unable to sell your shares at or above the price you paid for them. The market price of our common stock may be subject to substantial volatility in response to many risk factors listed in this section, and others beyond our control, including:

- the levels of ADCETRIS, PADCEV and TUKYSA product sales;
- announcements of FDA or other regulatory approval or non-approval of our products, including TUKYSA, or any of our product candidates or specific label indications for or restrictions, warnings or limitations in its use, or delays in the regulatory review or approval process;
- announcements regarding the results of discovery efforts and preclinical, clinical and commercial activities by us, or those of our competitors;

- announcements regarding the results of the clinical trials we and our collaborators are conducting or may in the future conduct for our products and product candidates;
- announcements regarding, or negative publicity concerning, adverse events or safety concerns associated with the use of ADCETRIS, PADCEV, TUKYSA or our product candidates;
- issuance of new or changed analysts' reports and recommendations regarding us or our competitors;
- termination of or changes in our existing collaborations or licensing arrangements, or establishment of new collaborations or licensing arrangements;
- our failure to achieve the perceived benefits of our strategic transactions as rapidly or to the extent anticipated by financial analysts or investors;
- our entry into additional material strategic transactions including licensing or acquisition of products, businesses or technologies;
- actions taken by regulatory authorities with respect to our product candidates, our clinical trials or our regulatory filings;
- our raising of additional capital and the terms upon which we may raise any additional capital;
- market conditions for equity investments in general, or the biotechnology or pharmaceutical industries in particular;
- developments or disputes concerning our proprietary rights, including with respect to our disputes with Daiichi Sankyo;
- developments regarding any future purported securities class action lawsuits, as well as any other potential litigation;
- share price and volume fluctuations attributable to inconsistent trading volume levels of our shares;
- changes in government regulations; and
- economic or other external factors.

The stock markets in general, and the markets for biotechnology and pharmaceutical stocks in particular, have historically experienced significant volatility that has often been unrelated or disproportionate to the operating performance of particular companies, including in connection with the COVID-19 pandemic, which has resulted in decreased market prices, notwithstanding the lack of a fundamental change in the underlying business models or prospects of those companies. In this regard as a result of the risks and evolving effects of the COVID-19 pandemic, Brexit and/or significant changes in U.S. social, political, regulatory and economic conditions or in laws and policies governing trade and healthcare spending and delivery outside the U.S., the financial markets could experience significant volatility that could also negatively impact the markets for biotechnology and pharmaceutical stocks. These broad market fluctuations have adversely affected and may in the future adversely affect the market price of our common stock. In this regard, worsening economic conditions and other adverse impacts or developments relating to the evolving effects of the COVID-19 pandemic may negatively affect the market price of our common stock, regardless of our actual operating performance.

In the past, class action or derivative litigation has often been instituted against companies whose securities have experienced periods of volatility in market price. In this regard, we have become, and may in the future again become, subject to claims and litigation alleging violations of the securities laws or other related claims, which could harm our business and require us to incur significant costs. Lawsuits brought against us could result in substantial costs, which would hurt our financial condition and results of operations and divert management's attention and resources, which could result in delays of our clinical trials or our development and commercialization efforts.

Substantial future sales of shares of our common stock or equity-related securities could cause the market price of our common stock to decline.

Sales of a substantial number of shares of our common stock into the public market, including sales by members of our management or board of directors or entities affiliated with such members, could occur at any time. These sales, or the perception in the market that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock and could impair our ability to raise capital through the sale of additional equity or equity-related securities. We are unable to predict the effect that such sales may have on the prevailing market price of our common stock. As of December 31, 2020, we had 180,902,151 shares of common stock outstanding, all of which shares are eligible for sale in the public market, subject in some cases to the volume limitations and manner of sale and other requirements under Rule 144. In addition, we may issue a substantial number of shares of our common stock or equity-related securities, including convertible debt, to meet our capital needs, including in connection with funding potential future acquisition or licensing opportunities, capital expenditures or product development costs, which issuances could be substantially dilutive and could adversely affect the market price of our common stock. Likewise, future issuances by us of our common stock upon the exercise, conversion or settlement of equity-based awards or other equity-related securities would dilute existing stockholders' ownership interest in our company and any sales in the public market of these shares, or the perception that these sales might occur, could also adversely affect the market price of our common stock.

Moreover, we have in the past and may in the future grant rights to some of our stockholders that require us to register the resale of our common stock or other securities on behalf of these stockholders and/or facilitate public offerings of our securities held by these stockholders, including in connection with potential future acquisition or capital-raising transactions. For example, in connection with our September 2015 public offering of common stock, we entered into a registration rights agreement with entities affiliated with Baker Bros. Advisors LP, or the Baker Entities, that together, based on information available to us as of December 31, 2020, collectively beneficially owned approximately 26% of our common stock. Under the registration rights agreement, if at any time and from time to time the Baker Entities demand that we register their shares of our common stock for resale under the Securities Act of 1933, as amended, or the Securities Act, we would be obligated to effect such registration. In December 2020, pursuant to the registration rights agreement, we registered for resale, from time to time, up to 47,366,602 shares of our common stock held by the Baker Entities. Our registration obligations under the registration rights agreement cover all shares now held or hereafter acquired by the Baker Entities, will continue in effect for up to ten years, and include our obligation to facilitate certain underwritten public offerings of our common stock by the Baker Entities in the future. Accordingly, we expect to register additional shares held by the Baker Entities for resale from time to time, including in certain cases, shares that we have previously registered for resale by the Baker Entities, whether in connection with the expiration of registration statements that we previously filed with the SEC or otherwise. If the Baker Entities, by exercise of these registration and/or underwriting rights and our registration of shares held by the Baker Entities for resale from time to time, or otherwise, sell a large number of our shares, or the market perceives that the Baker Entities intend to sell a large number of our shares, including in connection with our registrations of shares held by the Baker Entities for resale, this could adversely affect the market price of our common stock. We have also filed registration statements to register the sale of our common stock reserved for issuance under our equity incentive and employee stock purchase plans. Accordingly, these shares will be able to be freely sold in the public market upon issuance as permitted by any applicable vesting requirements.

Our existing stockholders have significant control of our management and affairs.

Based solely on the most recent Schedules 13G and 13D filed with the SEC, reports filed with the SEC under Section 16 of the Exchange Act, and our outstanding shares of common stock as of December 31, 2020, our executive officers and directors and holders of greater than five percent of our outstanding common stock beneficially owned approximately 62% of our voting power as of December 31, 2020. As a result, these stockholders, acting together, are able to control our management and affairs and matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions, such as mergers, consolidations or the sale of substantially all of our assets. Consequently, this concentration of ownership may have the effect of delaying, deferring or preventing a change in control, including a merger, consolidation, takeover or other business combination involving us or discourage a potential acquirer from making a tender offer or otherwise attempting to obtain control, which might affect the market price of our common stock.

Anti-takeover provisions could make it more difficult for a third party to acquire us.

Our Board of Directors has the authority to issue up to 5,000,000 shares of preferred stock and to determine the price, rights, preferences, privileges and restrictions, including voting rights, of those shares without any further vote or action by the stockholders, which authority could be used to adopt a "poison pill" that could act to prevent a change of control of Seagen that has not been approved by our Board of Directors. The rights of the holders of common stock may be subject to, and may be adversely affected by, the rights of the holders of any preferred stock that may be issued in the future. The issuance of preferred stock may have the effect of delaying, deferring or preventing a change of control of Seagen without further action by the stockholders and may adversely affect the voting and other rights of the holders of common stock. Further, certain provisions of our charter documents, including provisions eliminating the ability of stockholders to take action by written consent and limiting the ability of stockholders to raise matters at a meeting of stockholders without giving advance notice, may have the effect of delaying or preventing changes in control or management of Seagen, which could have an adverse effect on the market price of our stock. In addition, our charter documents provide for a classified board, which may make it more difficult for a third party to gain control of our Board of Directors. Similarly, state anti-takeover laws in Delaware and Washington related to corporate takeovers may prevent or delay a change of control of Seagen.

General Risk Factors

Changes in tax laws or regulations may have a material adverse effect on our business, cash flow, financial condition or results of operations.

New tax laws, statutes, rules, regulations or ordinances could be enacted at any time, including as a result of the recent U.S. presidential and congressional elections, which could adversely affect our business operations and financial performance. Further, existing tax laws, statutes, rules, regulations or ordinances could be interpreted, changed, modified or applied adversely to us. In addition, as we continue to expand our operations internationally, we may become increasingly subject to taxation in additional jurisdictions. Changes in corporate tax rates, the realization of net deferred tax assets relating to our operations, the taxation of foreign earnings, and the deductibility of expenses could have a material impact on the value of our deferred tax assets, result in significant one-time charges, increase our future tax expense or otherwise have a material adverse effect on our business, cash flow, financial condition or results of operations.

If any of our facilities are damaged or our clinical, research and development or other business processes are interrupted, our business could be seriously harmed.

We conduct most of our business in a limited number of facilities. Damage or extended periods of interruption to our corporate, development or research facilities due to fire, natural disaster, power loss, communications failure, unauthorized entry or other events could cause us to cease or delay development of some or all of our product candidates or interrupt the sales process for our products. Although we maintain property damage and business interruption insurance coverage on these facilities, our insurance might not cover all losses under such circumstances and our business may be seriously harmed by such delays and interruption.

Increasing use of social media could give rise to liability.

We are increasingly relying on social media tools as a means of communications. To the extent that we continue to use these tools as a means to communicate about our products and product candidates or about the diseases that our products and our product candidates are intended to treat, there are significant uncertainties as to either the rules that apply to such communications, or as to the interpretations that health authorities will apply to the rules that exist. As a result, despite our efforts to comply with applicable rules, there is a significant risk that our use of social media for such purposes may cause us to nonetheless be found in violation of them. Such uses of social media could have a material adverse effect on our business, financial condition and results of operations.

Legislative actions and new accounting pronouncements are likely to impact our future financial position or results of operations.

Future changes in financial accounting standards may cause adverse, unexpected revenue fluctuations and affect our financial position or results of operations. New pronouncements and varying interpretations of pronouncements have occurred with frequency in the past and are expected to occur again in the future and as a result we may be required to make changes in our accounting policies. Those changes could adversely affect our reported revenues and expenses, future profitability or financial position. Compliance with new regulations regarding corporate governance and public disclosure may result in additional expenses.

The application of existing or future financial accounting standards, particularly those relating to the way we account for revenues and costs, could have a significant impact on our reported results. In addition, compliance with new regulations regarding corporate governance and public disclosure may result in additional expenses. As a result, we intend to invest all reasonably necessary resources to comply with evolving standards, and this investment may result in increased general and administrative expenses and a diversion of management time and attention from science and business activities to compliance activities.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our headquarters are in Bothell, Washington. Our Bothell campus comprises 11 leased buildings of office and warehouse space that we use for laboratory, discovery, research and development and general and administrative purposes, and a biologics manufacturing facility which we own. We also have leased space in Seattle, Washington, South San Francisco, California, Mississauga, Canada, Zug, Switzerland, and in several other European locations used for general and administrative purposes. All of our significant leases include renewal options. We believe that our real estate is currently adequate to meet our needs. As we continue to expand our operations, we may need to lease or purchase additional real estate.

Item 3. Legal Proceedings

The information set forth in Note 14 of the Notes to Consolidated Financial Statements included in Part II Item 8 of this Annual Report on Form 10-K is incorporated by reference into this Item 3.

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

Our Common Stock

Our common stock is traded on the Nasdaq Global Select Market under the symbol "SGEN." As of February 9, 2021, there were 181,164,446 shares of our common stock outstanding, which were held by approximately 60 holders of record.

Dividend Policy

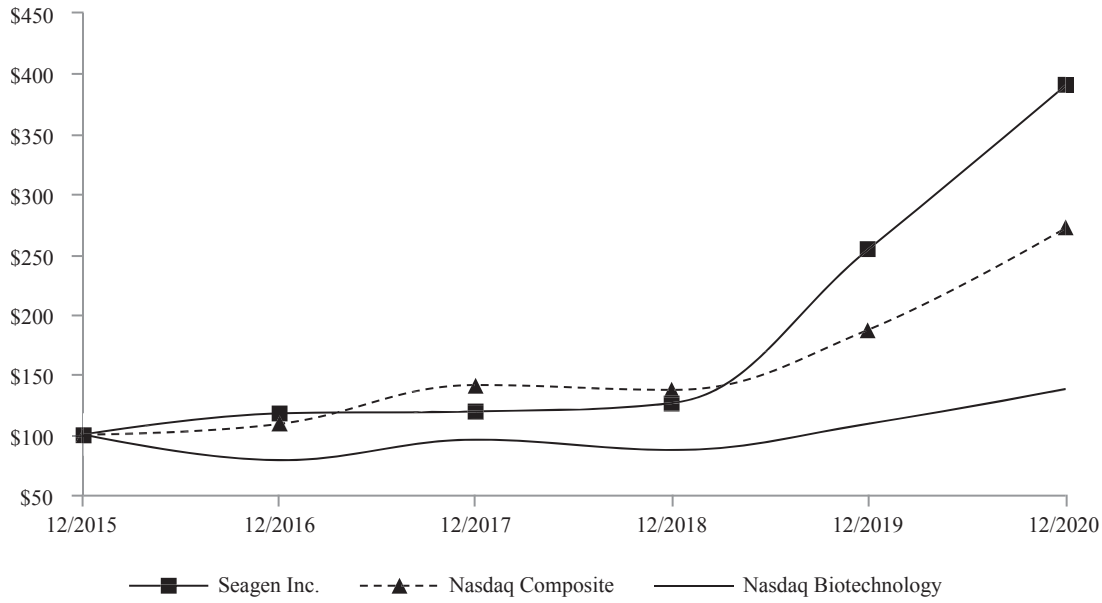
We have not paid any cash dividends on our common stock since our inception. We do not intend to pay any cash dividends in the foreseeable future, but intend to retain all earnings, if any, for use in our business operations.

Sales of Unregistered Securities and Issuer Repurchases of Securities

Other than as previously reported on a Current Report on Form 8-K filed with the Securities and Exchange Commission on September 14, 2020, there were no unregistered sales of equity securities by us during 2020. In addition, we did not repurchase any of our equity securities during 2020.

Stock Performance Graph

The table below shows the cumulative total return to our stockholders during the period from December 31, 2015 through December 31, 2020 in comparison to the indicated indexes. The results assume that $100 was invested on December 31, 2015 in our common stock and each of the indicated indexes, including reinvestment of any dividends.



	December 31,					
	2015	2016	2017	2018	2019	2020
Seagen Inc.	$ 100.00	$ 117.58	$ 119.21	$ 126.25	$ 254.59	$ 390.24
Nasdaq Composite	100.00	108.87	141.13	137.12	187.44	271.64
Nasdaq Biotechnology	100.00	78.65	95.67	87.19	109.08	137.90

This information under "Stock Performance Graph" is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference in any filing of Seagen Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this Annual Report on Form 10-K and irrespective of any general incorporation language in those filings.

Item 6. Selected Financial Data

The following selected financial data should be read in conjunction with our consolidated financial statements and notes to our consolidated financial statements and "Management's Discussion and Analysis of Financial Condition and Results of Operations" contained elsewhere in this Annual Report on Form 10-K. The selected Consolidated Statements of Comprehensive Income (Loss) data for the years ended December 31, 2020, 2019, and 2018, and Consolidated Balance Sheet data as of December 31, 2020 and 2019 have been derived from our audited financial statements appearing elsewhere in this Annual Report on Form 10-K. The selected Consolidated Statements of Comprehensive Income (Loss) data for the years ended December 31, 2017 and 2016 and Consolidated Balance Sheet data as of December 31, 2018, 2017, and 2016 have been derived from our audited financial statements that are not included in this Annual Report on Form 10-K. Historical results are not necessarily indicative of future results.

	Years ended December 31,				
	2020	2019	2018	2017	2016
	(a)	*(b)*	*(c)*		
	(in thousands, except for per share amounts)				
Consolidated Statements of Comprehensive Income (Loss) Data:					
Revenues:					
Net product sales	$ 1,000,598	$ 627,977	$ 476,903	$ 307,562	$ 265,766
Royalty revenues	126,756	138,491	83,440	66,056	67,455
Collaboration and license agreement revenues	1,048,182	150,245	94,357	108,632	84,926
Total revenues	2,175,536	916,713	654,700	482,250	418,147
Costs and expenses:					
Cost of sales	217,720	43,952	88,293	54,118	42,317
Research and development	827,129	719,374	565,309	456,700	379,308
Selling, general and administrative	533,835	373,932	261,096	167,233	139,247
Total costs and expenses	1,578,684	1,137,258	914,698	678,051	560,872
Income (loss) from operations	596,852	(220,545)	(259,998)	(195,801)	(142,725)
Investment and other income, net	18,849	61,895	13,652	36,914	2,614
Income (loss) before income taxes	615,701	(158,650)	(246,346)	(158,887)	(140,111)
Income tax benefit (expense)	(2,031)	—	23,653	33,357	—
Net income (loss)	$ 613,670	$ (158,650)	$ (222,693)	$ (125,530)	$ (140,111)
Net income (loss) per share - basic	$ 3.51	$ (0.96)	$ (1.41)	$ (0.88)	$ (1.00)
Net income (loss) per share - diluted	$ 3.37	$ (0.96)	$ (1.41)	$ (0.88)	$ (1.00)
Shares used in computation of per share amounts - basic	174,834	165,498	157,655	143,174	140,746
Shares used in computation of per share amounts - diluted	182,287	165,498	157,655	143,174	140,746

	December 31,				
	2020	2019	2018	2017	2016
	(a)	*(b)*	*(c)*		
			(in thousands)		
Consolidated Balance Sheet Data:					
Cash, cash equivalents and investments	$ 2,660,250	$ 868,338	$ 459,866	$ 413,171	$ 618,974
Working capital	2,674,246	917,284	428,523	409,932	586,132
Total assets	4,000,906	2,205,866	1,503,329	877,949	838,396
Stockholders' equity	3,488,100	1,876,287	1,273,943	677,569	634,087

(a) In October 2020, we closed the sale of the shares pursuant to the Purchase Agreement, and issued 5,000,000 shares of our common stock to Merck at a purchase price of $200 per share, for proceeds of $1.0 billion. As a result, we recorded $749.9 million in stockholders' equity on our consolidated balance sheet and recognized the $250.1 million premium attributed to the Purchase Agreement in collaboration and license agreement revenues for the year ended December 31, 2020.

(b) In July 2019, we completed an underwritten public offering of 8,214,286 shares of our common stock at a public offering price of $70.00 per share. The offering resulted in net proceeds to us of $548.7 million.

On January 1, 2019, we adopted Accounting Standards Codification, or ASC, Topic 842--Leases. We recognized $35.2 million of operating lease liabilities and $34.7 million of operating lease right-of-use assets on our consolidated balance sheet. We elected the modified retrospective method transition option, which permitted us not to restate the comparative periods presented. For additional information, refer to Note 3 of the Notes to Consolidated Financial Statements included in Part II Item 8 of this Annual Report on Form 10-K.

(c) In March 2018, we acquired Cascadian Therapeutics, Inc., or Cascadian, for a total purchase price of approximately $614.1 million. Cascadian was included in our results of operations, along with the estimated fair values of the assets acquired and liabilities assumed in the acquisition, as of the acquisition date.

In February 2018, we completed an underwritten public offering of 13,269,230 shares of our common stock at a public offering price of $52.00 per share. The offering resulted in net proceeds to us of $658.2 million. The primary use of the net proceeds received from the offering was the fund the Cascadian acquisition.

On January 1, 2018, we adopted ASC Topic 606--Revenue from Contracts with Customers. We recorded a $26.6 million cumulative effect adjustment to decrease the accumulated deficit as of January 1, 2018. We used the modified retrospective method transition option, which permitted us not to restate the comparative periods presented. For additional information, refer to Note 2 of the Notes to Consolidated Financial Statements included in Part II Item 8 of this Annual Report on Form 10-K.

On January 1, 2018, we adopted Accounting Standards Update, or ASU, "ASU 2016-01, Financial Instruments: Overall," which required, among other items, that changes in the fair value of equity securities be recorded in income or loss rather than accumulated other comprehensive income or loss in stockholders' equity. We recognized a $64.1 million cumulative effect adjustment to decrease the accumulated deficit as of January 1, 2018. We used the modified retrospective method transition option, which permitted us not to restate the comparative periods presented. For additional information, refer to the heading "Investments" in Note 1 of the Notes to the Consolidated Financial Statements included in Part II Item 8 of this Annual Report on Form 10-K.

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 contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Forward-looking statements are based on our management's beliefs and assumptions and on information currently available to our management. All statements other than statements of historical facts are "forward-looking statements" for purposes of these provisions, including those relating to future events or our future financial performance and financial guidance. In some cases, you can identify forward-looking statements by terminology such as "may," "might," "will," "should," "expect," "plan," "anticipate," "project," "believe," "estimate," "predict," "potential," "intend" or "continue," the negative of terms like these or other comparable terminology, and other words or terms of similar meaning in connection with any discussion of future operating or financial performance. These statements are only predictions. All forward-looking statements included in this Annual Report on Form 10-K are based on information available to us on the date hereof, and we assume no obligation to update any such forward-looking statements. Any or all of our forward-looking statements in this document may turn out to be wrong. Actual events or results may differ materially. Our forward-looking statements can be affected by inaccurate assumptions we might make or by known or unknown risks, uncertainties and other factors. We discuss many of these risks, uncertainties and other factors in this Annual Report on Form 10-K in greater detail in "Part I Item 1A—Risk Factors." We caution investors that our business and financial performance are subject to substantial risks and uncertainties.

You should read the following discussion and analysis in conjunction with the Selected Financial Data and our consolidated financial statements and notes thereto included elsewhere in this Annual Report on Form 10-K.

Overview

Seagen is a biotechnology company that develops and commercializes targeted therapies to treat cancer. We are commercializing ADCETRIS for the treatment of certain CD30-expressing lymphomas, PADCEV for the treatment of certain metastatic urothelial cancers, and TUKYSA for treatment of certain metastatic HER2-positive breast cancers. We are also advancing a pipeline of novel therapies for solid tumors and blood-related cancers designed to address unmet medical needs and improve treatment outcomes for patients. Many of our programs, including ADCETRIS and PADCEV, are based on our antibody-drug conjugate, or ADC, technology that utilizes the targeting ability of monoclonal antibodies to deliver cell-killing agents directly to cancer cells. In October 2020, we changed our corporate name from Seattle Genetics, Inc. to Seagen Inc., reflecting the global expansion of our operations.

2020 highlights and recent developments

Corporate

- Reported net product sales of $1 billion for full year 2020.
- Entered into oncology collaborations with Merck under which we received $725 million in upfront payments and $1 billion through an equity investment by Merck.
- Continued to make strategic investments in our pipeline, commercial launches, infrastructure, and headcount to support our future growth.

ADCETRIS

- Reported the five-year update of the phase 3 ECHELON-1 clinical trial which showed treatment with ADCETRIS in combination with AVD resulted in superior long-term outcomes when compared to ABVD, which includes bleomycin, in frontline advanced Hodgkin lymphoma.
- Expanded clinical program including initiation of phase 3 trial in relapsed and refractory diffuse large B-cell lymphoma and expanded a trial in frontline Hodgkin lymphoma to evaluate stage I and II patients.
- Expanded indication approved in the European Union and first approval in China for our partner Takeda.

PADCEV

- Commercial launch with Astellas, for patients with previously treated metastatic urothelial cancer, following FDA approval in December 2019.

- Announced positive topline results from EV-301 phase 3 trial showing that PADCEV significantly improved overall survival in previously treated metastatic urothelial cancer patients. Data to support global marketing applications.
- Announced positive topline results from second cohort of EV-201 pivotal trial. Data to support additional indication in the U.S.
- Initiated EV-302 phase 3 trial in first-line metastatic urothelial cancer in combination with pembrolizumab.
- Received breakthrough therapy designation in first-line advanced urothelial cancer for PADCEV in combination with pembrolizumab.

TUKYSA

- Commercial launch following FDA approval for patients with previously treated metastatic HER2-positive breast cancer, including patients with brain metastases in April 2020.
- Received ex-U.S. regulatory approvals in Australia, Canada, Singapore and Switzerland under the Project Orbis initiative of the FDA Oncology Center of Excellence.
- Received marketing authorization in the European Union in February 2021.
- Entered into exclusive license and co-development agreement with Merck to commercialize TUKYSA in Asia, the Middle East and Latin America and other regions outside of the U.S., Canada and Europe.

Pipeline

- Announced positive results from tisotumab vedotin pivotal trial in patients with previously treated recurrent or metastatic cervical cancer. Data used to support approval application submitted in the U.S. in February 2021.
- Entered into a global co-development and co-commercialization agreement with Merck for our drug candidate ladiratuzumab vedotin.
- Initiated phase 1 trials of two novel drug candidates, SGN-B6A and SEA-TGT.

Also refer to Part I Item 1 "Business" for more information about our products, pipeline, technologies, research programs, and future plans for our clinical programs, including recent key business achievements.

Outlook

We recognize revenue from ADCETRIS product sales in the U.S. and Canada, and PADCEV and TUKYSA products sales in the U.S. While we anticipate that sales of ADCETRIS will increase in 2021 as compared to 2020, we have experienced and expect continued impacts associated with the COVID-19 pandemic, which appear to be reducing the rate of Hodgkin lymphoma diagnoses, and an increase in gross-to-net deductions that we believe is due to a shift in the locations where ADCETRIS is administered, which has increased the proportion of ADCETRIS sales through the federal 340B drug discount program. We expect that, going forward, our ability to maintain or continue to grow our ADCETRIS sales, if at all, will depend primarily on our ability to establish or demonstrate to the medical community the value of ADCETRIS and its potential advantages compared to existing and future therapeutics in its approved indications, including in the frontline Hodgkin lymphoma indication, and the extent to which physicians make prescribing decisions with respect to ADCETRIS. Other important factors affecting our ADCETRIS sales include the incidence flow of patients eligible for treatment in ADCETRIS' approved indications, the extent to which coverage and adequate levels of reimbursement for ADCETRIS are available from governments and other third-party payors, the impact of any healthcare reform measures that may be upheld, or adopted in the future, including measures that could result in more rigorous coverage criteria or reduce the price that we receive for ADCETRIS, increasing competition from competing therapies including pembrolizumab in multiple indications, including in the relapsed or refractory classical Hodgkin lymphoma indication, impacts resulting from the evolving effects of the COVID-19 pandemic including lower diagnosis rates, and the potential future approval of ADCETRIS in any additional indications. For these reasons, we cannot assure you that ADCETRIS sales will continue to grow or that we can maintain sales of ADCETRIS at or near current levels. In addition, as a result of these and other factors, our future ADCETRIS product sales can be difficult to accurately predict from period to period.

Our ability to realize the anticipated benefits from our investment in PADCEV is subject to a number of risks and uncertainties, including our and Astellas' ability to successfully jointly market and commercialize PADCEV in the U.S. in its approved indication, the extent to which we and Astellas are able to obtain regulatory approvals of PADCEV in

additional indications in the U.S., including in the frontline metastatic urothelial cancer setting, and in territories outside the U.S., our ability and Astellas' ability to successfully comply with rigorous post-marketing requirements, including obtaining the FDA's agreement as to the confirmation of clinical benefit of PADCEV based on the results of the EV-301 clinical trial, the acceptance of PADCEV by the medical community and patients, the extent to which physicians make prescribing decisions with respect to PADCEV, the incidence flow of patients eligible for treatment in PADCEV's approved indication, the duration of therapy for patients receiving PADCEV, the extent to which coverage and adequate levels of reimbursement for PADCEV are available from governments and other third-party payors, the impact of any healthcare reform measures that may be adopted in the future, including measures that could potentially result in more rigorous coverage criteria and additional downward pressure on the price that we receive for PADCEV, potential competition from competing therapies, the impact of conducting launch activities virtually during the COVID-19 pandemic and other impacts resulting from the evolving effects of the COVID-19 pandemic including potential negative impacts of reduced cancer diagnosis rates. In addition, as a result of these and other factors, including the lack of significant historical sales data, PADCEV sales are currently difficult to predict from period to period.

Our ability to realize the anticipated benefits of our investment in TUKYSA is subject to a number of risks and uncertainties, including our and Merck's ability to successfully launch, market and commercialize TUKYSA in our respective territories in its approved indication, the extent to which we and Merck are able to obtain regulatory and other required governmental and pricing and reimbursement approvals of TUKYSA in additional territories, the extent to which we and Merck are able to obtain regulatory approvals of TUKYSA in additional indications, including earlier lines of breast cancer and other HER2-positive cancers, the acceptance of TUKYSA by the medical community and patients, competition from other therapies, our and Merck's ability to accurately predict and supply product demand, the extent to which coverage and reimbursement will be available from governments and other third-party payors, our capacity to effectively commercialize a product outside of the U.S., the impact of conducting launch activities virtually during the COVID-19 pandemic and other impacts resulting from the evolving effects of the COVID-19 pandemic including potential negative impacts of reduced cancer diagnosis rates. In addition, as a result of these and other factors, including the lack of significant historical sales data, TUKYSA sales are currently difficult to predict from period to period.

The biopharmaceutical industry and the markets in which we operate are intensely competitive. Many of our competitors are working to develop or have commercialized products similar to those we market or are developing. Drug prices are under significant scrutiny and we expect drug pricing and other health care costs to continue to be subject to intense political and societal pressures on a global basis. For example, in July 2020, then-President Trump announced four Executive Orders related to reducing prescription drug prices and we expect that drug pricing will continue to be subject to close scrutiny by federal, state and foreign governments. In addition to pricing actions and other measures being taken worldwide designed to reduce healthcare costs and limit the overall level of government expenditures, our sales and operations could also be affected by other risks of doing business internationally.

We expect that amounts received from our collaboration agreements, including royalties, will continue to be an important source of our revenues and cash flows. These revenues and cash flows will be impacted by future development funding and the achievement of development, clinical and commercial success by our collaborators under our existing collaboration and license agreements, as well as by entering into potential new collaboration and license agreements.

Our ongoing research, development, manufacturing and commercial activities will require substantial amounts of capital and may not ultimately be successful. We expect that we will incur substantial expenses, and we will require significant financial resources and additional personnel in order to advance the development of, to pursue, obtain and maintain regulatory approvals for, and to commercialize our products and product candidates, and expand our pipeline. In addition, we may pursue new operations or continue the expansion of our existing operations, including with respect to our plans to build a commercial infrastructure in Europe and to otherwise continue to expand our operations internationally. As a result, we may need to raise additional capital, and our operating expenses may fluctuate as a result of such activities. We may also incur milestone payment obligations to certain of our licensors as our product candidates progress through clinical trials towards potential commercialization.

We are closely evaluating the impacts of the evolving effects of the COVID-19 pandemic on our ability and the ability of our collaborators to effectively market, sell and distribute our products and to develop our products and product candidates. While our field-based personnel are engaging in limited in-person interactions, they are primarily using electronic communication, such as emails, phone calls and video conferences. Many healthcare professionals that we normally call on are working a greater proportion of their working schedule from home and are facing additional demands on their time during the ongoing COVID-19 pandemic. We are experiencing increased competition for virtual appointments with healthcare professionals and a significant reduction in the number of interactions our sales personnel are having with physicians. We expect the different quality of electronic interactions as compared with in-person interactions, as well as the reduced quantity of interactions during the COVID-19 pandemic, to reduce the effectiveness of our sales personnel, as well as those of our collaborators, which could negatively affect our product sales and those of our collaborators, as well as physician awareness of our products. With respect to PADCEV and TUKYSA specifically, we have not launched a product using primarily virtual communication channels in the past and cannot predict the effects that this approach will ultimately have on demand for PADCEV or TUKYSA. However, we believe that the need to conduct these activities virtually is negatively impacting our ability to connect with key customers, including those familiar with competitive products, and our ability to conduct payor engagements. We face a number of challenges that will limit our ability to fully resume in-person interactions for the foreseeable future, including increasing COVID-19 infection rates in many states, the potential for more severe outbreaks, the need to navigate varying restrictions for entering healthcare facilities and employee childcare obligations during virtual school sessions. In addition, the effects of the COVID-19 pandemic continue to evolve rapidly, and we may subsequently be forced to, or subsequently determine that we should, resume a more restrictive remote work model, whether as a result of further spikes or surges in COVID-19 infection or hospitalization rates or otherwise. Moreover, the long-term effects of the COVID-19 pandemic are also unknown and it is possible that following the pandemic, healthcare institutions could alter their policies with respect to in person visits by pharmaceutical company representatives. COVID-19 related restrictions could also present product distribution challenges as we utilize recently initiated distribution channels for TUKYSA. We also expect that the conversion of medical conferences to a virtual format may reduce our ability to effectively disseminate scientific information about our products, which may result in decreased physician awareness of our products, their approved indications and their efficacy and safety. The evolving effects of the COVID-19 pandemic may also negatively affect our product sales due to challenges in patient access to healthcare settings, significant increases in unemployment and the resulting loss of individual health insurance coverage, and inability to access government healthcare programs due to backlogs, some or all of which appear to be affecting diagnosis rates and may affect side effect management, course of treatment and increase enrollment in our patient support programs. With respect to ADCETRIS specifically, impacts associated with the COVID-19 pandemic appear to be reducing the rate of Hodgkin lymphoma diagnoses. In addition, we have experienced lower than expected levels of our research and development spending, in part as a result of the COVID-19 pandemic. This includes some delays in clinical trial enrollment as well as reduced travel due to the conversion of medical and scientific meetings to virtual format. While we do not at this time anticipate the need to revise our publicly reported projected clinical milestone dates as a result of the effects of the COVID-19 pandemic, there may be some impacts to our clinical study timelines, which, depending upon the duration and severity of the evolving effects of the COVID-19 pandemic, could ultimately delay data availability. In addition, many of our non-essential on-site research activities are currently significantly reduced as a result of the COVID-19 pandemic, which may negatively impact the number of investigational new drug application, or IND, candidates entering our clinical pipeline in future years. The extent to which the risks and evolving effects of the COVID-19 pandemic impact our business, our ability to generate sales of and revenues from our approved products, and our clinical development and regulatory efforts will depend on future developments that are highly uncertain and cannot be predicted with confidence, such as the ultimate duration and severity of the pandemic, government actions, such as travel restrictions, quarantines and social distancing requirements in the U.S. and in other countries, business closures or business disruptions and the effectiveness of actions taken in the U.S. and in other countries to contain and treat the disease, including the effectiveness and timing of vaccine programs in the U.S. and worldwide.

Because of the above and other factors, our results of operations may vary substantially from year to year and from quarter to quarter and, as a result, we believe that period to period comparisons of our operating results may not be meaningful and should not be relied upon as being indicative of our future performance.

Financial summary

For 2020, our total revenues increased to $2.2 billion, compared to $916.7 million in 2019. This growth was driven by $975.2 million collaboration and license agreement revenues recognized related to the agreements we entered into with Merck during 2020, the U.S. launches of PADCEV beginning in December 2019 and TUKYSA in April 2020, respectively, as well as higher ADCETRIS net product sales.

For 2020, total costs and expenses increased to $1.6 billion, compared to $1.1 billion in 2019. This primarily reflected higher cost of sales, higher selling, general and administrative expenses, and higher research and development expenses.

As of December 31, 2020, we had $2.7 billion in cash, cash equivalents and investments and $3.5 billion in total stockholders' equity.

Comparability

We adopted ASC Topic 842—Leases on January 1, 2019, resulting in a change to our accounting policy for leases. We recorded a liability to make lease payments and a right-of-use asset representing our right to use the underlying assets for the applicable lease terms in our consolidated balance sheet at January 1, 2019. We used the modified retrospective method transition option. Accordingly, 2018 comparative information has not been adjusted and continues to be reported under previous accounting standards. For additional information, refer to Note 3 of the Notes to Consolidated Financial Statements included in Part II Item 8 of this Annual Report on Form 10-K.

In 2018, we acquired Cascadian for $10.00 per share in cash, or approximately $614.1 million. Cascadian was included in our results of operations as of the acquisition date. Accordingly, the results discussed below were impacted by the timing of this acquisition. For additional information, refer to Note 4 of the Notes to Consolidated Financial Statements included in Part II Item 8 of this Annual Report on Form 10-K.

In addition, the section of this Management's Discussion and Analysis of Financial Condition and Results of Operations generally discusses 2020 and 2019 items and year-to-year comparisons between 2020 and 2019. Discussions of 2018 items and year-to-year comparisons between 2019 and 2018 that are not included in this Annual Report on Form 10-K can be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II Item 7 of the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2019, filed with the SEC on February 6, 2020.

Critical Accounting Policies

The preparation of financial statements in accordance with generally accepted accounting principles, or GAAP, requires us to make estimates, assumptions and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosures of contingent assets and liabilities. We believe the following critical accounting policies describe the more significant judgments and estimates used in the preparation of our financial statements.

We evaluate our estimates on an ongoing basis. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form our basis for making judgments about the carrying values of assets and liabilities and the reported amounts of revenues and expenses that are not readily apparent from other sources. Actual results may differ from those estimates under different assumptions and conditions.

Revenue Recognition. Our revenues are comprised of ADCETRIS, PADCEV and TUKYSA net product sales, amounts earned under our collaboration and licensing agreements, and royalties. Revenue recognition occurs when a customer obtains control of promised goods or services in an amount that reflects the consideration we expect to receive in exchange for those goods or services. The period between when we transfer control of promised goods or services and when we receive payment is expected to be one year or less, and that expectation is consistent with our historical experience. As such, we do not adjust our revenues for the effects of a significant financing component.

We apply significant judgment to our estimates in the following revenue recognition areas, each as discussed in more detail in the corresponding sections after this list:

- *Net product sales* - sales deductions related to government-mandated rebates and chargebacks, such as for the Medicaid and 340B programs
- *Collaboration and license agreement revenues* - assessing the probability of future reversal of variable consideration and evaluating whether contractual obligations represent distinct performance obligations
- *Royalty revenues* - estimating Takeda's net sales of ADCETRIS to the extent actual information is not available

Net product sales

We sell ADCETRIS, PADCEV and TUKYSA through a limited number of specialty distributors and specialty pharmacies. We and our collaboration partner Astellas jointly promote PADCEV in the U.S. Under the joint promotion in the U.S., we record net sales of PADCEV and are responsible for all distribution through a limited number of specialty distributors. The delivery of our products represents a single performance obligation for these transactions and we record net product sales at the point in time when title and risk of loss pass. The transaction price for net product sales represents the amount we expect to receive, which is net of estimated government-mandated rebates and chargebacks, distribution fees, estimated product returns, and other deductions. Accruals are established for these deductions, and actual amounts incurred are offset against applicable accruals. We reflect these accruals as either a reduction in the related account receivable from the distributor or as an accrued liability, depending on the nature of the sales deduction. Sales deductions are based on management’s estimates that consider payor mix in target markets and experience to-date. These estimates involve a substantial degree of judgment. We have applied a portfolio approach as a practical expedient for estimating net product sales.

Government-mandated rebates and chargebacks: We have entered into a Medicaid Drug Rebate Agreement, or MDRA, with the Centers for Medicare & Medicaid Services. This agreement provides for a rebate based on covered purchases of our products. Medicaid rebates are invoiced to us by the various state Medicaid programs. We estimate Medicaid rebates using the expected value approach, based on a variety of factors, including payor mix and our experience to-date.

We have a Federal Supply Schedule, or FSS, agreement under which certain U.S. government purchasers receive a discount on eligible purchases of our products. In addition, we have entered into a Pharmaceutical Pricing Agreement with the Secretary of Health and Human Services, which enables certain entities that qualify for government pricing under the Public Health Services Act, or PHS, to receive discounts on their qualified purchases of our products. Under these agreements, distributors process a chargeback to us for the difference between wholesale acquisition cost and the applicable discounted price. We estimate expected chargebacks for FSS and PHS purchases based on the expected value of each entity’s eligibility for the FSS and PHS programs. We also review historical rebate and chargeback information to further refine these estimates.

Distribution fees, product returns and other deductions: Our distributors charge a volume-based fee for distribution services that they perform for us. We allow for the return of product that is within a specified number of days of its expiration date or that is damaged. We estimate product returns based on our experience to-date using the expected value approach. We provide financial assistance to qualifying patients that are underinsured or cannot cover the cost of commercial coinsurance amounts through our patient support programs. Estimated contributions for commercial coinsurance under SeaGen Secure are deducted from gross sales and are based on an analysis of expected plan utilization. These estimates are adjusted as necessary to reflect our actual experience.

Royalty revenues

Royalty revenues primarily reflect amounts earned under the ADCETRIS collaboration with Takeda. These royalties include commercial sales-based milestones and sales royalties that relate predominantly to the license of intellectual property. Sales royalties are based on a percentage of Takeda's net sales of ADCETRIS, with rates that range from the mid-teens to the mid-twenties based on annual net sales tiers. Takeda bears a portion of low single digit third-party royalty costs owed on its sales of ADCETRIS. This amount is included in royalty revenues. Amounts owed to our third-party licensors related to Takeda's sales of ADCETRIS are recorded in cost of sales. These amounts are recognized in the period in which the related sales by Takeda occur. Royalty revenues also reflect amounts from Genentech, Inc., a member of the Roche Group, or Genentech, earned on net sales of Polivy, and amounts from GlaxoSmithKline earned on net sales of Blenrep.

Collaboration and license agreement revenues

We have collaboration and license agreements for our technology with a number of biotechnology and pharmaceutical companies. Under these agreements, we typically receive or are entitled to receive upfront cash payments and progress- and sales-dependent milestones for the achievement by our licensees of certain events, and annual maintenance fees and support fees for research and development services and materials provided under the agreements. We also are entitled to receive royalties on net sales of any resulting products incorporating our technology. Our licensees are solely responsible for research, product development, manufacturing and commercialization of any product candidates under these collaborations, which includes the achievement of the potential milestones. Since we may not take a substantive role or control the research, development or commercialization of any products generated by some of our licensees, we may not able to reasonably estimate when, if at all, any potential future milestone payments or royalties may be payable to us by our licensees. As such, the potential future milestone payments associated with certain of our collaboration and license agreements involve a substantial degree of uncertainty and risk that they may never be received.

Collaboration and license agreements are initially evaluated as to whether the intellectual property licenses granted by us represent distinct performance obligations. If they are determined to be distinct, the value of the intellectual property licenses would be recognized up-front while the research and development service fees would be recognized as the performance obligations are satisfied. Variable consideration is assessed at each reporting period as to whether it is not subject to future reversal of cumulative revenue and, therefore, should be included in the transaction price. Assessing the recognition of variable consideration requires significant judgment. If a contract includes a fixed or minimum amount of research and development support, this also would be included in the transaction price. Changes to collaboration and license agreements, such as the extensions of the research term or increasing the number of targets or technology covered under an existing agreement, are assessed for whether they represent a modification or should be accounted for as a new contract.

We have concluded that the license of intellectual property in certain collaboration and license agreements is not distinct from the perspective of our customers at the time of initial transfer, since we often do not license intellectual property without related technology transfer and research and development support services. Such evaluation requires significant judgment since it is made from the customer's perspective. Our performance obligations under our collaborations may include such things as providing intellectual property licenses, performing technology transfer, performing research and development consulting services, providing reagents, ADCs, and other materials, and notifying the customer of any enhancements to licensed technology or new technology that we discover, among others. We determined our performance obligations under certain collaboration and license agreements as evaluated at contract inception were not distinct and represented a single performance obligation. For those agreements, revenue is recognized using a proportional performance model, representing the transfer of goods or services as activities are performed over the term of the agreement. Upfront payments are also amortized to revenue over the performance period. Upfront payment contract liabilities resulting from our collaborations do not represent a financing component as the payment is not financing the transfer of goods or services, and the technology underlying the licenses granted reflects research and development expenses already incurred by us. For agreements beyond the initial performance period, we have no remaining performance obligations. We may receive license maintenance fees and potential milestones and royalties based on collaborator development and regulatory progress, which are recorded in the period achieved in the case of milestones, and during the period of the related sales for royalties.

When no performance obligations are required of us, or following the completion of the performance obligation period, such amounts are recognized upon transfer of control of the goods or services to the customer. Generally, all amounts received or due other than sales-based milestones and royalties are classified as collaboration and license agreement revenues. Sales-based milestones and royalties are recognized as royalty revenue in the period the related sale occurred.

We generally invoice our collaborators and licensees on a monthly or quarterly basis, or upon the completion of the effort or achievement of a milestone, based on the terms of each agreement. Deferred revenue arises from amounts received in advance of the culmination of the earnings process and is recognized as revenue in future periods as performance obligations are satisfied. Deferred revenue expected to be recognized within the next twelve months is classified as a current liability.

Business combinations, including acquired in-process research and development and goodwill. We account for business combinations using the acquisition method, recording the acquisition-date fair value of total consideration over the acquisition-date fair value of net assets acquired as goodwill.

Fair value is typically estimated using an income approach based on the present value of future discounted cash flows. The significant estimates in the discounted cash flow model primarily include the discount rate, rates of future revenue growth and/or profitability of the acquired business. The discount rate considers the relevant risk associated with business-specific characteristics and the uncertainty related to the ability to achieve the projected cash flows. We may record adjustments to the fair values of assets acquired and liabilities assumed within the measurement period (up to one year from the acquisition date).

In-process research and development assets are accounted for as indefinite-lived intangible assets and maintained on the balance sheet until either the underlying project is completed or the asset becomes impaired. If the project is completed, which generally occurs when FDA approval is obtained, the carrying value of the related intangible asset is amortized to cost of sales on a straight-line basis over the estimated useful life of the asset beginning in the period in which the project is completed. We periodically evaluate when facts or circumstances indicate that the carrying value of these assets may not be recoverable. If the asset becomes impaired or is abandoned, the carrying value of the related intangible asset is written down to its fair value and an impairment charge is recorded in the period in which the impairment occurs.

We evaluate indefinite-lived intangible assets and goodwill for impairment annually, as of October 1, or more frequently when events or circumstances indicate that impairment may have occurred. As part of the impairment evaluation, we may elect to perform an assessment of qualitative factors. If this qualitative assessment indicates that it is more likely than not that the fair value of the indefinite-lived intangible asset or the reporting unit (for goodwill) is less than its carrying value, we then would proceed with the quantitative impairment test to compare the fair value to the carrying value and record an impairment charge if the carrying value exceeds the fair value.

Accrued Liabilities. As part of the process of preparing financial statements, we estimate accrued liabilities. This process involves identifying services that have been performed on our behalf and estimating the level of services performed and the associated costs incurred for such services where we have not yet been invoiced or otherwise notified of actual cost. We record these estimates in our consolidated financial statements as of each balance sheet date. Examples of estimated accrued liabilities include amounts due to contract research organizations and other costs in conjunction with clinical trials, amounts due in conjunction with manufacturing our product candidates, third-party royalties that accrue on our sales of our marketed products, and professional service fees, among other items.

In accruing service fees, we estimate the time period over which services will be provided and the level of effort in each period. If the actual timing of the provision of services or the level of effort varies from the estimate, we will adjust the accrual accordingly. In the event that we do not identify costs that have been incurred or we under or overestimate the level of services performed or the costs of such services, our actual liabilities would differ from such estimates. The date on which some services commence, the level of services performed on or before a given date and the cost of such services are often subjective determinations. We make judgments based upon the facts and circumstances known to us at the time.

Long-term Incentive Plans. We have long term incentive plans which provide eligible employees with the opportunity to receive performance-based incentive compensation, which may be comprised of cash, stock options, and/or restricted stock units. The payment of cash and the grant or vesting of equity awards are contingent upon the achievement of pre-determined regulatory milestones. We record compensation expense over the estimated service period for each milestone when we believe the milestone is considered probable, which we assess at each reporting date. Once a milestone is considered probable, we record compensation expense based on the portion of the service period elapsed to date with respect to that milestone, with a cumulative catch-up, net of estimated forfeitures, and recognize any remaining compensation expense, if any, over the remaining estimated service period.

Income Taxes. We have net deferred tax assets which are offset by a valuation allowance due to our determination that it is more likely than not that the deferred tax assets will not be realized. We believe that a valuation allowance is appropriate as we have a history of net operating losses. In the event we were to determine that we would be able to realize our net deferred tax assets in the future, an adjustment to the valuation allowance would be made, a portion of which would increase income (or decrease losses) in the period in which such a determination was made. We follow the guidance related to accounting for uncertainty in income taxes, which requires the recognition of an uncertain tax position when it is more likely than not to be sustainable upon audit by the applicable taxing authority.

Results of Operations - Years Ended December 31, 2020, 2019, and 2018

Net product sales

				Percentage change	
(dollars in thousands)	**2020**	**2019**	**2018**	**2020/2019**	**2019/2018**
ADCETRIS	$ 658,577	$ 627,733	$ 476,903	5 %	32 %
PADCEV	222,436	244	—	NM	NM
TUKYSA	119,585	—	—	NM	NM
Net product sales	$ 1,000,598	$ 627,977	$ 476,903	59 %	32 %

NM: No amount in comparable period or not a meaningful comparison.

Our net product sales grew 59% during 2020 as compared to 2019, primarily driven by recent product launches of PADCEV and TUKYSA. We began commercializing PADCEV and TUKYSA following FDA approvals in December 2019 and April 2020, respectively. ADCETRIS net product sales increased in 2020 from 2019 due to higher sales volumes and the effect of price increases during the current year period.

We expect growth in net product sales in 2021 from 2020 to be primarily driven by sales growth of TUKYSA and PADCEV, and to a lesser extent, ADCETRIS.

Gross-to-net deductions, net of related payments and credits, were as follows:

(in thousands)	December 31, 2020			December 31, 2019			December 31, 2018		
	Rebates and chargebacks	Distribution fees, product returns and other	Total	Rebates and chargebacks	Distribution fees, product returns and other	Total	Rebates and chargebacks	Distribution fees, product returns and other	Total
Balance, beginning of year	$ 38,084	$ 7,519	$ 45,603	$ 26,968	$ 5,604	$ 32,572	$ 14,374	$ 3,521	$ 17,895
Provision related to current year sales	358,238	28,724	386,962	253,702	15,298	269,000	179,394	11,717	191,111
Adjustments for prior period sales	(1,341)	—	(1,341)	(392)	(464)	(856)	440	(478)	(38)
Payments/credits for current year sales	(319,444)	(18,886)	(338,330)	(217,905)	(11,349)	(229,254)	(155,581)	(8,248)	(163,829)
Payments/credits for prior year sales	(31,344)	(1,668)	(33,012)	(24,289)	(1,570)	(25,859)	(11,659)	(908)	(12,567)
Balance, end of year	$ 44,193	$ 15,689	$ 59,882	$ 38,084	$ 7,519	$ 45,603	$ 26,968	$ 5,604	$ 32,572

Government-mandated rebates and chargebacks are the most significant component of our total gross-to-net deductions and the discount percentage has been increasing. These discount percentages increased during 2020 and 2019 as a result of price increases for ADCETRIS that we instituted that exceeded the rate of inflation. The most significant portion of our gross-to-net accrual balances as of December 31, 2020 and 2019 was for ADCETRIS Medicaid rebates. We expect future gross-to-net deductions to fluctuate based on the volume of purchases eligible for government mandated discounts and rebates, as well as changes in the discount percentage which is impacted by potential future price increases, the rate of inflation, and other factors. We expect gross-to-net deductions to increase in 2021 as compared to 2020, driven by anticipated growth in our gross product sales.

Royalty revenues

Royalty revenues primarily reflect royalties earned under the ADCETRIS collaboration with Takeda. These royalties include commercial sales-based milestones and sales royalties. Sales royalties are based on a percentage of Takeda's net sales of ADCETRIS, with rates that range from the mid-teens to the mid-twenties based on annual net sales tiers. Takeda bears third-party royalty costs owed on its sales of ADCETRIS. This amount is included in royalty revenues. Royalty revenues also reflect, to a lesser extent, amounts from Genentech earned on net sales of Polivy beginning in 2019, and amounts from GlaxoSmithKline earned on net sales of Blenrep beginning in August 2020, both of which utilizes technology that we have licensed to them.

(dollars in thousands)	2020	2019	2018	Percentage change 2020/2019	Percentage change 2019/2018
Royalty revenues	$ 126,756	$ 138,491	$ 83,440	(8)%	66 %

Royalty revenues decreased in 2020 as compared to 2019 due to Takeda's achievement of a $40.0 million sales-based milestone during 2019, offset in part by 2020 growth in Takeda net sales of ADCETRIS in its territories, as well as higher Roche net sales of Polivy.

We expect that royalty revenues will increase in 2021 as compared to 2020 primarily due to higher royalties from anticipated growth in ADCETRIS sales volume by Takeda, as well as anticipated sales growth of our other licensees.

Collaboration and license agreement revenues

Collaboration and license agreement revenues reflect amounts earned under certain of our license and collaboration agreements. These revenues reflect the earned portion of license fees, payments received by us for technology access and maintenance fees, milestone payments and reimbursement payments for research and development support that we provide to our collaborators.

Collaboration and license agreement revenues by collaborator were as follows:

				Percentage change	
(dollars in thousands)	2020	2019	2018	2020/2019	2019/2018
Merck	$ 975,150	$ —	$ —	NM	NM
Takeda	32,107	108,175	58,605	(70)%	85 %
Other	40,925	42,070	35,752	(3)%	18 %
Collaboration and license agreement revenues	$ 1,048,182	$ 150,245	$ 94,357	598 %	59 %

NM: No amount in comparable period or not a meaningful comparison.

Collaboration and license agreement revenues from Merck included license revenues of $725.0 million related to the collaboration agreements for LV and TUKYSA that were entered into in 2020, as well as a stock purchase premium paid by Merck of $250.1 million. Refer to Note 11 of the Notes to Consolidated Financial Statements included in Part II Item 8 for additional information.

Collaboration revenues from Takeda fluctuate based on changes in the recognized portion of reimbursement funding under the ADCETRIS collaboration, which are impacted by the activities each party is performing under the collaboration agreement at a given time. For example, when Takeda's level of spending on clinical collaboration activities increases above our own, our earned portion of reimbursement funding generally decreases. Additionally, we receive reimbursement for the cost of drug product supplied to Takeda for its use, the timing of which fluctuates based on Takeda's product supply needs. Collaboration revenues from Takeda can also fluctuate based on the achievement of milestones by Takeda. Collaboration revenues from Takeda in 2020 decreased compared to 2019, primarily as a result of two regulatory milestones achieved in 2019 totaling $37.5 million, which were related to approvals of ADCETRIS in frontline Hodgkin lymphoma, and the completion of the Takeda performance period in November 2019.

Other collaboration revenues declined slightly in 2020 as compared to 2019 due to recognition of $20.0 million license and collaboration agreement revenues from BeiGene, Ltd., or BeiGene, in 2019, as well as development milestones received from GSK and Genentech in 2019, offset in part by two regulatory milestones achieved by GSK and a development milestone achieved by AbbVie in 2020.

We expect our collaboration and license agreement revenues in 2021 to significantly decrease compared to 2020, driven by the amounts recognized related to the Merck Agreements in 2020. Our collaboration and license agreement revenues are impacted by the term and duration of those agreements and by progress-dependent milestones, annual maintenance fees, and reimbursement of materials and support services. Collaboration and license agreement revenues may vary substantially from year to year and quarter to quarter depending on the progress made by our collaborators with their product candidates, the level of support we provide to our collaborators, specifically to Takeda under our ADCETRIS collaboration, the timing of milestones achieved and our ability to enter into potential additional collaboration and license agreements.

Collaboration agreements

We discuss the below arrangements in greater detail under the heading "Corporate Collaborations" in Part I Item 1 of this Annual Report on Form 10-K.

Takeda ADCETRIS collaboration

We have an agreement with Takeda for the global co-development of ADCETRIS and the commercialization of ADCETRIS by Takeda in its territory. We recognize payments received from Takeda, including progress-dependent development and regulatory milestone payments, reimbursement for drug supplied, and net development cost reimbursement payments, as collaboration and license agreement revenues upon transfer of control of the goods or services over the development period. When the performance of development activities under the collaboration results in us making a reimbursement payment to Takeda, that payment reduces collaboration and license agreement revenues. We also recognize royalty revenues based on a percentage of Takeda's net sales of ADCETRIS in its territories, ranging from the mid-teens to the mid-twenties based on annual net sales tiers, as well as sales-based milestones. Takeda bears a portion of third-party royalty costs owed on its sales of ADCETRIS, which is included in royalty revenues.

Astellas PADCEV collaboration

We have a collaboration agreement with Agensys, Inc., which subsequently became an affiliate of Astellas, to jointly research, develop and commercialize ADCs for the treatment of several types of cancer. Under this collaboration, we and Astellas are co-funding all development costs for PADCEV. Cost associated with co-development activities are included in research and development expense. Gross profit share payments owed to Astellas in the U.S. under the joint commercialization agreement are recorded in cost of sales.

Genmab tisotumab vedotin collaboration

We have an agreement with Genmab to develop and commercialize ADCs for the treatment of several types of cancer, under which we previously exercised a co-development option for tisotumab vedotin. In October 2020, we and Genmab entered into a joint commercialization agreement to govern the global commercialization of tisotumab vedotin, if we are successful in obtaining any regulatory approvals of tisotumab vedotin. Costs associated with co-development activities are included in research and development expense.

Merck LV collaboration

In September 2020, we entered into the LV Agreement with a subsidiary of Merck. We are pursuing a broad joint development program evaluating LV as monotherapy and in combination settings, including with Merck’s anti-PD-1 therapy KEYTRUDA® (pembrolizumab) in triple-negative breast cancer, hormone receptor-positive breast cancer and other LIV-1-expressing solid tumors. Under the terms of the LV Agreement, we granted Merck a co-exclusive worldwide development and commercialization license for LV, and agreed to jointly develop and commercialize LV on a worldwide basis. We received an upfront cash payment of $600.0 million, and we are eligible to receive up to $850.0 million in milestone payments upon the initiation of certain clinical trials and regulatory approval in certain major markets, and up to an additional $1.8 billion in milestone payments upon the achievement of specified annual global net sales thresholds of LV. Each company is responsible for 50% of global costs to develop and commercialize LV and will receive 50% of potential future profits. In connection with the LV Agreement, we entered into a stock purchase agreement with Merck in September 2020, pursuant to which we agreed to issue and sell, and Merck agreed to purchase 5,000,000 newly-issued shares of our common stock, at a purchase price of $200 per share, for an aggregate purchase price of $1.0 billion, referred to as the Purchase Agreement. We closed the Purchase Agreement on October 27, 2020 following the expiration of the waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976.

We recognized license revenue of $850.1 million during the year ended December 31, 2020 associated with the LV and Stock Purchase Agreements, and we recognize such cost sharing proportionately with the performance of the underlying activities, while recording Merck’s reimbursement of our expenses as a reduction of research and development expenses.

Merck TUKYSA collaboration

In September 2020, we entered into the TUKYSA Agreement with a subsidiary of Merck. We granted exclusive rights to commercialize TUKYSA in Asia, the Middle East and Latin America and other regions outside of the U.S., Canada and Europe. Under the terms of the TUKYSA Agreement, Merck is responsible for marketing applications for approval in its territory, supported by the positive results from the HER2CLIMB clinical trial. We retained commercial rights in, and will record sales in, the U.S., Canada and Europe. Merck is also co-funding a portion of the TUKYSA global development plan, which encompasses several ongoing and planned trials across HER2-positive cancers. We will continue to lead ongoing TUKYSA global development operational execution. Merck will solely fund and conduct

country-specific clinical trials necessary to support anticipated regulatory applications in its territories. We received an upfront cash payment from Merck of $125.0 million and also received $85.0 million in prepaid research and development funding to be applied to Merck's global development cost sharing obligations. We are eligible to receive progress-dependent milestone payments of up to $65.0 million, and are entitled to receive tiered royalties on sales of TUKYSA by Merck that begin in the low twenty percent range and escalate based sales volume by Merck in its territory. We owe Array a portion of any non-royalty payments received from sublicensing TUKSYA rights, as well as a low double-digit royalty based on net sales of TUKYSA by us, and will owe a single-digit royalty based on net sales of TUKYSA by Merck in its territories.

We recognized license revenue of $125.0 million during the year ended December 31, 2020 associated with the TUKYSA Agreement, and we recognize such cost sharing proportionately with the performance of the underlying activities, while recording Merck's reimbursement of our expenses as a reduction of research and development expenses. Sales of TUKYSA drug product supplied is included in collaboration and license agreement revenues. The prepayment received for global development cost-sharing was recorded as a co-development liability in accrued liabilities and other or other long-term liabilities on our consolidated balance sheet as of December 31, 2020. As joint development expenses are incurred, we recognize the portion of Merck's prepayment as a reduction of our research and development expenses on our consolidated statements of net income (loss). As of December 31, 2020, $80.9 million was recorded as the remaining co-development liability.

Other collaboration and license agreements

We have other collaboration and license agreements for our ADC technology with a number of biotechnology and pharmaceutical companies. We typically receive upfront cash payments and progress- and sales-dependent milestones for the achievement by our licensees of certain events, and annual maintenance fees and support fees for research and development services and materials provided under the agreements. These amounts are recognized as revenue over the performance obligation period if the license is determined not to be distinct from other goods and services provided, or, if there is no performance obligation, upon transfer of control of the goods or services to the customer.

As of December 31, 2020, the remaining potential milestone payments to us under our other ADC license and collaboration agreements could total approximately $1.6 billion if all potential product candidates achieved all of their milestone events. Of this amount, approximately $0.9 billion relates to the achievement of development and regulatory milestones, and approximately $0.7 billion relates to the achievement of commercial milestones. Since we do not control the research, development or commercialization of any of the products that would generate these milestones, we are not able to reasonably estimate when, if at all, any potential future milestone payments or royalties may be payable by our collaborators. Successfully developing a product candidate, obtaining regulatory approval and ultimately commercializing it is a significantly lengthy and highly uncertain process which entails a significant risk of failure. In addition, business combinations, changes in a collaborator's business strategy and financial difficulties or other factors could result and have resulted in a collaborator abandoning or delaying development of its product candidates. As such, the potential future milestone payments associated with our ADC collaboration agreements involve a substantial degree of risk and may never be received. Accordingly, we do not expect, and investors should not assume, that we will receive all of the potential milestone payments described above, and it is possible that we may never receive any additional significant milestone payments under these agreements.

Cost of sales

Cost of sales includes manufacturing and distribution costs of product sold, gross profit share with Astellas pursuant to our PADCEV collaboration, amortization of acquired technology license costs, royalties owed on our PADCEV net product sales and global ADCETRIS and TUKSYA net product sales.

				Percentage change	
(dollars in thousands)	2020	2019	2018	2020/2019	2019/2018
Cost of sales	$ 217,720	$ 43,952	$ 88,293	395 %	(50)%

Cost of sales increased in 2020 as compared to 2019, driven by the Astellas gross profit share related to PADCEV net product sales, a payment owed to a third-party technology licensor resulting from the TUKSYA Agreement, amortization expense associated with acquired TUKSYA technology costs, and in-licensing royalties owed on PADCEV and TUKYSA net product sales. The gross profit share with Astellas totaled $104.6 million for the year ended December 31, 2020. We recorded amortization expense of $16.3 million for acquired TUKYSA technology costs during the year ended December 31, 2020, which began following FDA approval of TUKYSA in April 2020.

We expect cost of sales to increase in 2021 as compared to 2020 as a result of the net product sales growth of our commercial-stage drugs. This includes cost of product sales for PADCEV and the gross profit share with Astellas under our collaboration. Growth will also be driven by the full-year 2021 amortization of acquired TUKYSA technology costs. The increase in cost of sales will also reflect expected growth in ADCETRIS net product sales. Cost of sales includes a low-single digit royalty on global net sales of ADCETRIS, a mid-single digit royalty on our net sales of PADCEV, and a low double-digit royalty on global net sales of TUKYSA. Cost of sales for PADCEV and TUKYSA in 2021 will be partially reduced by the use of product inventory that was manufactured prior to FDA approval, and previously charged to research and development expense.

Research and development

				Percentage change	
(dollars in thousands)	2020	2019	2018	2020/2019	2019/2018
Research and clinical development	$ 581,496	$ 497,986	$ 397,429	17 %	25 %
Process sciences and manufacturing	245,633	221,388	167,880	11 %	32 %
Total research and development	$ 827,129	$ 719,374	$ 565,309	15 %	27 %

Certain prior year balances have been reclassified within research and development expenses to conform to current year presentation.

Research and clinical development expenses include personnel, occupancy and laboratory expenses, technology access fees, preclinical translational biology and *in vitro* and *in vivo* studies, IND-enabling pharmacology and toxicology studies, and external clinical trial costs including costs for clinical sites, clinical research organizations, contractors and regulatory activities associated with conducting human clinical trials. The increase in 2020 as compared to 2019 primarily reflected higher employee-related costs and external development costs mainly to support our early- and late-stage pipeline of product candidates.

Process sciences and manufacturing expenses include personnel and occupancy expenses, manufacturing costs for the scale-up and pre-approval manufacturing of drug product used in research and our clinical trials, and costs for drug product supplied to our collaborators. Process sciences and manufacturing expenses also include quality control and assurance activities, and storage and shipment of our product candidates. The increase in 2020 compared to 2019 primarily reflected higher employee-related costs and external development costs primarily to support our early- and late-stage pipeline of product candidates, as well as higher costs for drug product supplied to Takeda.

We utilize our employee and infrastructure resources across multiple research and development projects. We track human resource efforts expended on many of our programs for purposes of billing our collaborators for time incurred at agreed upon rates and for resource planning. We do not account for actual costs on a project basis as it relates to our infrastructure, facility, employee and other indirect costs; however, we do separately track significant third-party costs including clinical trial costs, manufacturing costs and other contracted service costs on a project basis. To that end, the following table shows third-party costs incurred for research, contract manufacturing of our product candidates and clinical and regulatory services, as well as development milestone payments for in-licensed technology for our products

and certain of our clinical-stage product candidates. The table also presents other costs and overhead consisting of third-party costs for our preclinical stage programs, as well as personnel, facilities, manufacturing, and other indirect costs not directly charged to development programs.

				Percentage change		5 years ended
(dollars in thousands)	**2020**	**2019**	**2018**	**2020/2019**	**2019/2018**	**December 31, 2020**
ADCETRIS (brentuximab vedotin)	$ 55,530	$ 45,151	$ 40,435	23 %	12 %	$ 294,082
TUKYSA (tucatinib)	73,142	84,276	40,739	(13)%	107 %	198,157
PADCEV (enfortumab vedotin-ejfv)	35,563	36,186	24,943	(2)%	45 %	123,134
Tisotumab vedotin	28,102	30,423	22,253	(8)%	37 %	86,799
Ladiratuzumab vedotin	14,320	23,178	24,523	(38)%	(5)%	85,225
Other clinical stage programs	35,174	38,103	36,656	(8)%	4 %	271,508
Total third-party costs for clinical stage programs	241,831	257,317	189,549	(6)%	36 %	1,058,905
Other costs and overhead	585,298	462,057	375,760	27 %	23 %	1,888,909
Total research and development	$ 827,129	$ 719,374	$ 565,309	15 %	27 %	$ 2,947,814

Third-party costs for ADCETRIS increased in 2020 as compared to 2019 primarily due to increased activities associated with our ongoing ADCETRIS clinical trials. The cost of drug product supplied to Takeda is charged to research and development expense. We are reimbursed for the drug product, which is included in collaboration and license agreement revenues.

Third-party costs for TUKYSA decreased in 2020 as compared to 2019, primarily due to lower clinical supply expenses. Following the approval of TUKYSA in April 2020, we began capitalizing inventory costs manufactured for commercial sale.

Third-party costs for PADCEV decreased slightly in 2020 as compared to 2019, due to the timing of our ongoing clinical trials.

Third-party costs for tisotumab vedotin decreased in 2020 as compared to 2019, due to the timing of our and Genmab's ongoing clinical trials.

Third-party costs for ladiratuzumab vedotin decreased in 2020 as compared to 2019, primarily due to lower research and clinical development expenses as well as cost-sharing reimbursements received from Merck in 2020 related to the LV Agreement.

Third-party costs for other clinical stage programs were related to multiple earlier-stage development programs and were relatively consistent across 2020 and 2019.

Other costs and overhead include third-party costs of our preclinical programs and costs associated with personnel and facilities. These costs increased in 2020 as compared to 2019 due primarily to due to the addition of new preclinical programs and higher employee-related expenses from headcount growth.

In order to advance our product candidates toward commercialization, the product candidates are tested in numerous preclinical safety, toxicology and efficacy studies. We then conduct clinical trials for those product candidates that take several years or more to complete. The length of time varies substantially based upon the type, complexity, novelty and intended use of a product candidate. We will also need to conduct additional clinical trials in order to expand labeled indications of use for our commercial products. The outcome of our clinical trials is uncertain. The cost of clinical trials may vary significantly as a result of a variety of factors, including the number of patients enrolled, patient site costs, quantity and source of drug supply required, safety and efficacy of the product candidate, and extent of regulatory efforts, among others.

We anticipate that our total research and development expenses in 2021 will increase compared to 2020 primarily due to higher costs for the continued development of our approved products and product candidates.

The risks and uncertainties associated with our research and development projects are discussed more fully in "Part I Item 1A—Risk Factors." As a result of these risks and uncertainties, we are unable to determine with any degree of certainty the duration and completion costs of our research and development projects, anticipated completion dates, or when and to what extent we will receive cash inflows from the commercialization and sale of our products in any additional approved indications or of any of our product candidates.

Selling, general and administrative

				Percentage change	
(dollars in thousands)	2020	2019	2018	2020/2019	2019/2018
Selling, general and administrative	$ 533,835	$ 373,932	$ 261,096	43 %	43 %

Selling, general and administrative expenses increased in 2020 and 2019 as compared to prior years primarily due to increased field sales personnel and external spend to support our recently commercialized products, and higher infrastructure costs to support our continued growth in the U.S. and Europe.

We anticipate that selling, general and administrative expenses will increase in 2021 as compared to 2020 as we continue our commercial activities in support of our products, and invest in infrastructure to support our continued growth in the U.S. and Europe.

Investment and other income, net

				Percentage change	
(dollars in thousands)	2020	2019	2018	2020/2019	2019/2018
Gain on equity securities	$ 11,604	$ 50,124	$ 7,336	(77)	NM
Investment and other income, net	7,245	11,771	6,316	(38)%	86 %
Total investment and other income, net	$ 18,849	$ 61,895	$ 13,652	(70)	353 %

NM: No amount in comparable period or not a meaningful comparison.

Investment and other income, net includes other non-operating income and loss, such as unrealized holding gains and losses on equity securities (which primarily include common stock holdings in Immunomedics prior to the sale of these securities in April 2020), realized gains and losses on equity and debt securities, and amounts earned on our investments in U.S. Treasury securities.

The gain on equity securities in the year ended December 31, 2020 was primarily driven by a realized gain in April 2020 from the sale of our equity securities, offset in part by an unrealized loss on equity securities during the first quarter of 2020.

Investment income reflects amounts earned on our investments in U.S. Treasury securities. Investment income decreased in 2020 compared to 2019 due to due to lower average yields on our investment portfolio during 2020.

Income taxes

				Percentage change	
(dollars in thousands)	2020	2019	2018	2020/2019	2019/2018
Income tax benefit (expense)	$ (2,031)	$ —	$ 23,653	NM	NM

NM: No amount in comparable period or not a meaningful comparison.

We generated pre-tax income of $615.7 million in 2020 as the result of the Merck agreements entered into during 2020. For the year ended December 31, 2020, we recorded a provision for income taxes of $2.0 million, consisting primarily of current state income taxes. We utilized net operating loss carryforwards to offset the federal tax liability.

We did not generate pre-tax income during 2019 or 2018. In 2018, we recognized a deferred tax liability of $23.7 million on acquired intangible assets in connection with the acquisition of Cascadian. As a result, we recorded an income tax benefit of $23.7 million for the release of valuation allowance on our existing U.S. deferred tax assets as a result of the offset of deferred tax liabilities established for intangible assets from the acquisition.

Liquidity and capital resources

	December 31,		
(dollars in thousands)	**2020**	**2019**	**2018**
Cash, cash equivalents and investments	$ 2,660,250	$ 868,338	$ 459,866
Working capital	2,674,246	917,284	428,523
Stockholders' equity	3,488,100	1,876,287	1,273,943

	Years ended December 31,		
(dollars in thousands)	**2020**	**2019**	**2018**
Cash provided by (used in):			
Operating activities	$ 856,568	$ (163,737)	$ (203,536)
Investing activities	(1,419,012)	(277,729)	(592,630)
Financing activities	846,108	637,842	713,407

The change in net cash from operating activities from 2020 as compared to 2019 primarily was related to the change in our net income (loss), working capital fluctuations and changes in our non-cash expenses, all of which are highly variable. The increase in cash provided by operating activities was primarily driven by $975.2 million in collaboration and license agreement revenues recognized related to the agreements we entered into with Merck during 2020.

The change in net cash from investing activities from 2020 as compared to 2019 reflected differences between the proceeds received from sale and maturity of our investments and amounts reinvested, and the difference for purchases of property, plant, and equipment.

The change in net cash from financing activities included proceeds from issuances of common stock, the exercise of options to purchase shares of our common stock, and common stock sales under our employee stock purchase plan for all years presented.

We primarily have financed our operations through the issuance of our common stock, collections from commercial sales of our products, amounts received pursuant to license and collaboration agreements, and royalty revenues. To a lesser degree, we also have financed our operations through investment income. These financing and revenue sources have allowed us to maintain adequate levels of cash and investments.

Our cash, cash equivalents, and investments are held in a variety of non-interest bearing bank accounts and interest-bearing instruments subject to investment guidelines allowing for holdings in U.S. government and agency securities, corporate securities, taxable municipal bonds, commercial paper and money market accounts. Our investment portfolio is structured to provide for investment maturities and access to cash to fund our anticipated working capital needs. However, if our liquidity needs should be accelerated for any reason in the near term, or investments do not pay at maturity, we may be required to sell investment securities in our portfolio prior to their scheduled maturities, which may result in a loss. As of December 31, 2020, we had $2.7 billion held in cash, cash equivalents, and investments.

At our currently planned spending rates, we believe that our existing financial resources, together with product and royalty revenues, and the fees, milestone payments and reimbursements we expect to receive under our existing collaboration and license agreements, will be sufficient to fund our operations for at least the next twelve months.

We expect to make additional capital outlays and to increase operating expenditures over the next several years as we hire additional employees, and support our development, commercialization, invest in our facilities, and expand globally, which may require us to raise additional capital. Further, we actively evaluate various strategic transactions on an ongoing basis, including licensing or otherwise acquiring complementary products, technologies or businesses, and we may require significant additional capital in order to complete or otherwise provide funding for such transactions. We may seek additional capital through some or all of the following methods: corporate collaborations, licensing arrangements, and public or private debt or equity financings. We do not know whether additional capital will be available when needed, or that, if available, we will obtain financing on terms favorable to us or our stockholders. If we are unable to raise additional funds when we need them, our business and operations may be adversely affected.

Commitments

The following table reflects our future minimum contractual commitments as of December 31, 2020:

(dollars in thousands)	Total	2021	2022	2023	2024	2025	Thereafter
Operating leases	$ 88,330	$ 16,337	$ 15,650	$ 15,030	$ 11,147	$ 7,510	$ 22,656
Supply and other agreements	366,126	141,130	84,384	61,680	44,988	33,816	128
Total	$ 454,456	$ 157,467	$ 100,034	$ 76,710	$ 56,135	$ 41,326	$ 22,784

We have entered into leases for our office and laboratory facilities expiring in 2021 through 2029 that contain rate escalations and options for us to extend the leases. Operating lease obligations in the table above do not assume the exercise by us of any extension options.

Supply and other agreements primarily include non-cancelable obligations under our manufacturing, license and collaboration agreements. Further, a substantial portion of those non-cancelable obligations include minimum payments related to manufacturing our product candidates for use in our clinical trials and for commercial operations in the case of ADCETRIS.

Some of our manufacturing, license and collaboration agreements provide for periodic maintenance fees over specified time periods, profit share payments, and/or payments by us upon the achievement of development and regulatory milestones. Some of our licensing agreements obligate us to pay royalties based on net sales of products utilizing licensed technology. Such royalties and profit share payments are dependent on future product sales and are not provided for in the table above as they are dependent on events that have not yet occurred. Future milestone payments for research and pre-clinical stage development programs have not been included in the above table as the event triggering such payment or obligation has not yet occurred, which consisted of up to approximately $2.1 billion in total potential future milestone payments to third parties under our collaboration and license agreements with these parties. These milestone payments generally become due and payable only upon the achievement of certain developmental, clinical, regulatory and/or commercial milestones. These contingent payments have not been included in the above table as the event triggering such payment or obligation has not yet occurred.

Recent accounting pronouncements

See the section “Recent accounting pronouncements” in Note 1 to the Notes to Consolidated Financial Statements in Part II Item 8 of this Annual Report on Form 10-K.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Interest Rate Risk

Our exposure to market risk for changes in interest rates relates primarily to our investment portfolio. We currently have holdings in U.S. Treasury securities. A summary of our investment securities follows:

	December 31,	
(dollars in thousands)	**2020**	**2019**
Short-term investments	$ 2,000,996	$ 536,493
Long-term investments	100,830	57,283
Total	$ 2,101,826	$ 593,776

We have estimated the effect on our investment portfolio of a hypothetical increase in interest rates by one percent to be a reduction of $9.1 million in the fair value of our investments as of December 31, 2020. In addition, a hypothetical decrease of 10% in the effective yield of our investments would reduce our expected investment income by $0.3 million over the next twelve months based on our investment balance at December 31, 2020.

Foreign Currency Risk

Most of our revenues and expenses are denominated in U.S. dollars and as a result, we have not experienced significant foreign currency transaction gains and losses to date. Our commercial sales in Canada are denominated in Canadian Dollars. We also had other transactions denominated in foreign currencies during the year ended December 31, 2020, primarily related to contract manufacturing and ex-U.S. clinical trial activities, and we expect to continue to do so. Our royalties from Takeda are derived from their sales of ADCETRIS in multiple countries and in multiple currencies that are converted into U.S. dollars for purposes of determining the royalty owed to us. Our limited foreign currency exposure is to fluctuations in the Euro, British Pound, Canadian Dollar, Swiss Franc, and Danish Krone. We do not anticipate that foreign currency transaction gains or losses will be significant at our current level of operations. However, transaction gains or losses may become significant in the future as we continue to expand our operations internationally. We have not engaged in foreign currency hedging to date; however, we may do so in the future.

Item 8. Financial Statements and Supplementary Data

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of
Seagen Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Seagen Inc. and its subsidiaries (the "Company") as of December 31, 2020 and 2019, and the related consolidated statements of comprehensive income (loss), of stockholders' equity and of cash flows for each of the three years in the period ended December 31, 2020, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited 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 (COSO).

In our opinion, the consolidated financial statements referred to above 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 three years in the period ended December 31, 2020 in conformity with accounting principles generally accepted in the United States of America. Also 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 COSO.

Changes in Accounting Principles

As discussed in Note 1 to the consolidated financial statements, the Company changed the manner in which it accounts for leases in 2019 and the manner in which it accounts for revenue from contracts with customers and the manner in which it accounts for investments in equity securities in 2018.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Annual Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (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 audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements 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. 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 audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) 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 (iii) 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.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) 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 matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Government-mandated rebates - Medicaid

As described in Note 1 to the consolidated financial statements, the Company records product sales net of estimated government-mandated rebates and chargebacks, distribution fees, estimated product returns and other deductions. Accruals are established for these deductions, and actual amounts are offset against applicable accruals. As disclosed by management, amounts accrued for rebates and chargebacks as of December 31, 2020 are $44.2 million, with the most significant portion of the accrual balance related to ADCETRIS Medicaid rebates. Management estimates Medicaid rebates using the expected value approach, based on a variety of factors, including payor mix and experience to-date. Management also reviews historical rebate information to further refine these estimates.

The principal considerations for our determination that performing procedures relating to government-mandated rebates – Medicaid is a critical audit matter are (i) the significant judgment by management when determining the rebate estimate and (ii) the high degree of auditor judgment, subjectivity and effort in performing procedures and evaluating audit evidence related to management's estimate and significant assumptions related to payor mix and estimated purchases covered by the various state Medicaid programs.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the various state Medicaid programs, including controls over the assumptions used to estimate the rebate. These procedures also included, among others, (i) testing management's process for determining the rebate estimate; (ii) evaluating the appropriateness of management's model; (iii) testing the completeness and accuracy of the underlying data used by management; and (iv) evaluating the significant assumptions used by management including payor mix and estimated purchases covered by the various state Medicaid programs. Evaluating management's assumptions involved evaluating whether the assumptions were reasonable considering (i) the consistency of the historical covered purchases and rebate processing times; (ii) expansion of state Medicaid programs; (iii) comparing assumptions to other industry data; (iv) testing of actual rebate claims processed by the Company; and (v) whether these assumptions were consistent with evidence obtained in other areas of the audit.

/s/ PricewaterhouseCoopers LLP

Seattle, Washington
February 11, 2021

We have served as the Company's auditor since 1998.

Seagen Inc.
Consolidated Balance Sheets
(In thousands, except par value)

	December 31,	
	2020	2019
Assets		
Current assets:		
Cash and cash equivalents	$ 558,424	$ 274,562
Short-term investments	2,000,996	536,493
Accounts receivable, net	324,988	236,001
Inventories	116,136	85,932
Prepaid expenses and other current assets	61,840	43,653
Total current assets	3,062,384	1,176,641
Property and equipment, net	196,700	155,491
Operating lease right-of-use assets	61,480	65,230
Long-term investments	100,830	57,283
Intangible assets, net	283,680	300,025
Goodwill	274,671	274,671
Other non-current assets	21,161	176,525
Total assets	$ 4,000,906	$ 2,205,866
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 78,067	$ 52,292
Accrued liabilities and other	310,071	207,065
Total current liabilities	388,138	259,357
Long-term liabilities:		
Operating lease liabilities, long-term	61,884	67,607
Other long-term liabilities	62,784	2,615
Total long-term liabilities	124,668	70,222
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, $0.001 par value, 5,000 shares authorized; none issued	—	—
Common stock, $0.001 par value, 250,000 shares authorized; 180,902 shares issued and outstanding at December 31, 2020 and 171,994 shares issued and outstanding at December 31, 2019	181	172
Additional paid-in capital	4,356,922	3,359,124
Accumulated other comprehensive income	565	229
Accumulated deficit	(869,568)	(1,483,238)
Total stockholders' equity	3,488,100	1,876,287
Total liabilities and stockholders' equity	$ 4,000,906	$ 2,205,866

The accompanying notes are an integral part of these consolidated financial statements.

Seagen Inc.
Consolidated Statements of Comprehensive Income (Loss)
(In thousands, except per share amounts)

	Years ended December 31,		
	2020	2019	2018
Revenues:			
Net product sales	$ 1,000,598	$ 627,977	$ 476,903
Royalty revenues	126,756	138,491	83,440
Collaboration and license agreement revenues	1,048,182	150,245	94,357
Total revenues	2,175,536	916,713	654,700
Costs and expenses:			
Cost of sales	217,720	43,952	88,293
Research and development	827,129	719,374	565,309
Selling, general and administrative	533,835	373,932	261,096
Total costs and expenses	1,578,684	1,137,258	914,698
Income (loss) from operations	596,852	(220,545)	(259,998)
Investment and other income, net	18,849	61,895	13,652
Income (loss) before income taxes	615,701	(158,650)	(246,346)
Income tax (expense) benefit	(2,031)	—	23,653
Net income (loss)	$ 613,670	$ (158,650)	$ (222,693)
Net income (loss) per share - basic	$ 3.51	$ (0.96)	$ (1.41)
Net income (loss) per share - diluted	$ 3.37	$ (0.96)	$ (1.41)
Shares used in computation of per share amounts - basic	174,834	165,498	157,655
Shares used in computation of per share amounts - diluted	182,287	165,498	157,655
Comprehensive income (loss):			
Net income (loss)	$ 613,670	$ (158,650)	$ (222,693)
Other comprehensive income:			
Unrealized (loss) gain on securities available-for-sale, net of income tax provision of $0, $0, and $0, respectively	(186)	204	293
Foreign currency translation gain (loss), net of income tax provision of $0, $0, and $0, respectively	522	65	(50)
Total other comprehensive income	336	269	243
Comprehensive income (loss)	$ 614,006	$ (158,381)	$ (222,450)

The accompanying notes are an integral part of these consolidated financial statements.

Seagen Inc.
Consolidated Statements of Stockholders' Equity
(In thousands)

	Common stock		Additional paid-in capital	Accumulated other comprehensive income (loss)	Accumulated deficit	Total stockholders' equity
	Shares	Amount				
Balances at December 31, 2017	144,395	$ 144	$ 1,806,159	$ 63,836	$ (1,192,570)	$ 677,569
Net loss	—	—	—	—	(222,693)	(222,693)
Other comprehensive income	—	—	—	243	—	243
Cumulative effects of accounting changes	—	—	—	(64,119)	90,675	26,556
Issuance of common stock for stock option exercises and employee stock purchase plan	2,006	2	55,163	—	—	55,165
Restricted stock vested during the period, net	592	1	(1)	—	—	—
Issuance of common stock	13,269	13	658,229	—	—	658,242
Share-based compensation	—	—	78,861	—	—	78,861
Balances at December 31, 2018	160,262	160	2,598,411	(40)	(1,324,588)	1,273,943
Net loss	—	—	—	—	(158,650)	(158,650)
Other comprehensive income	—	—	—	269	—	269
Issuance of common stock for stock option exercises and employee stock purchase plan	2,621	3	89,148	—	—	89,151
Restricted stock vested during the period, net	897	1	(1)	—	—	—
Issuance of common stock	8,214	8	548,683	—	—	548,691
Share-based compensation	—	—	122,883	—	—	122,883
Balances at December 31, 2019	171,994	172	3,359,124	229	(1,483,238)	1,876,287
Net income	—	—	—	—	613,670	613,670
Other comprehensive income	—	—	—	336	—	336
Issuance of common stock for stock option exercises and employee stock purchase plan	2,466	2	96,255	—	—	96,257
Restricted stock vested during the period, net	1,442	2	(2)	—	—	—
Issuance of common stock	5,000	5	749,845	—	—	749,850
Share-based compensation	—	—	151,700	—	—	151,700
Balances at December 31, 2020	180,902	$ 181	$ 4,356,922	$ 565	$ (869,568)	$ 3,488,100

The accompanying notes are an integral part of these consolidated financial statements.

Seagen Inc.
Consolidated Statements of Cash Flows
(In thousands)

	Years ended December 31,		
	2020	2019	2018
Operating activities:			
Net income (loss)	$ 613,670	$ (158,650)	$ (222,693)
Adjustments to reconcile net income (loss) to net cash provided (used) by operating activities			
Share-based compensation	147,233	127,349	78,861
Depreciation and amortization	36,045	23,759	25,308
Amortization of intangible assets	16,345	15	724
Amortization of right-of-use-assets	10,994	9,740	—
Amortization of premiums, accretion of discounts, and (gains) losses on debt securities	3,104	(4,916)	(2,530)
Gain on equity securities	(11,604)	(50,124)	(7,336)
(Gain) loss on disposals of property and equipment	(26)	1,853	—
Deferred income taxes	(2,053)	—	(23,653)
Changes in operating assets and liabilities:			
Accounts receivable, net	(88,727)	(89,720)	(45,233)
Inventories	(30,204)	(32,693)	6,739
Prepaid expenses and other assets	(22,231)	2,459	(14,567)
Lease liabilities	(11,271)	(6,660)	—
Deferred revenue	—	(33,600)	(33,913)
Other liabilities	195,293	47,451	34,757
Net cash provided (used) by operating activities	856,568	(163,737)	(203,536)
Investing activities:			
Purchases of securities	(2,483,336)	(992,976)	(512,334)
Proceeds from maturities of securities	952,000	786,000	398,722
Proceeds from sales of securities	194,733	—	140,352
Purchases of property and equipment	(82,409)	(70,753)	(21,219)
Acquisition of Cascadian Therapeutics, Inc., net of cash acquired	—	—	(598,151)
Net cash used by investing activities	(1,419,012)	(277,729)	(592,630)
Financing activities:			
Net proceeds from issuance of common stock	749,850	548,691	658,242
Proceeds from exercise of stock options and employee stock purchase plan	96,258	89,151	55,165
Net cash provided by financing activities	846,108	637,842	713,407
Effect of exchange rate changes on cash and cash equivalents	198	—	—
Net increase (decrease) in cash and cash equivalents	283,862	196,376	(82,759)
Cash and cash equivalents at beginning of year	274,562	78,186	160,945
Cash and cash equivalents at end of year	$ 558,424	$ 274,562	$ 78,186

The accompanying notes are an integral part of these consolidated financial statements.

1. Organization and Summary of Significant Accounting Policies

Organization

We are a biotechnology company that develops and commercializes targeted therapies to treat cancer. We are commercializing ADCETRIS®, or brentuximab vedotin, for the treatment of certain CD30-expressing lymphomas, PADCEV®, or enfortumab vedotin-ejfv, for the treatment of certain metastatic urothelial cancers, and TUKYSA®, or tucatinib, for treatment of certain metastatic HER2-positive breast cancers. We are also advancing a pipeline of novel therapies for solid tumors and blood-related cancers designed to address unmet medical needs and improve treatment outcomes for patients. Many of our programs, including ADCETRIS and PADCEV, are based on our antibody-drug conjugate, or ADC, technology that utilizes the targeting ability of monoclonal antibodies to deliver cell-killing agents directly to cancer cells. In October 2020, we changed our corporate name from Seattle Genetics, Inc. to Seagen Inc., reflecting the global expansion of our operations.

Basis of presentation

The accompanying consolidated financial statements reflect the accounts of Seagen Inc. and its wholly-owned subsidiaries (collectively "Seagen," "we," "our," or "us"). The consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles, or GAAP. All intercompany transactions and balances have been eliminated. We acquired Cascadian Therapeutics, Inc., or Cascadian, in March 2018, as further described in Note 4. Management has determined that we operate in one segment: the development and sale of pharmaceutical products on our own behalf or in collaboration with others.

Use of estimates

The preparation of financial statements in accordance with GAAP requires us to make estimates, assumptions, and judgments that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates. Estimates include those used for revenue recognition, valuation of investments, inventory valuation, business combinations, accrued liabilities (including those related to the long-term incentive plans, clinical trials and contingencies), stock option valuation, and valuation allowance for deferred tax assets.

Reclassifications

We combined cost of sales with cost of royalty revenues during the current year and reclassified the prior years cost of royalty revenues on our consolidated statements of comprehensive income (loss), to conform to the current year presentation. This reclassification had no effect on our net cash used by operating activities or our consolidated statements of comprehensive income (loss).

Cash and cash equivalents

We consider all highly liquid investments with maturities of three months or less at the date of acquisition to be cash equivalents.

Non-cash activities

We had $6.0 million and $11.1 million of accrued capital expenditures as of December 31, 2020 and 2019, respectively. Accrued capital expenditures have been treated as a non-cash investing activity and, accordingly, have not been included in the consolidated statement of cash flows until such amounts have been paid in cash. During the years ended December 31, 2020 and 2019, we recorded $7.2 million and $40.3 million, respectively, of right-of-use assets in exchange for lease liabilities, which has been treated as a non-cash operating activity. See Note 3 for additional information.

Investments

We held certain equity securities that we acquired in connection with strategic agreements, which were reported at estimated fair value. Changes in the fair value of equity securities are recorded in income or loss. The cost of equity securities for purposes of computing gains and losses is based on the specific identification method. We adopted Accounting Standards Update, or ASU, "ASU 2016-01, Financial Instruments: Overall" on January 1, 2018, which addressed certain aspects of recognition, measurement, presentation and disclosure of financial instruments, including that changes in the fair value of equity securities be recorded in income or loss rather than accumulated other comprehensive income or loss in stockholders' equity. We used the modified retrospective method transition option and recognized a $64.1 million cumulative effect of initially applying this ASU as an adjustment to decrease the opening accumulated deficit at January 1, 2018.

We invest our available cash primarily in debt securities. These debt securities are classified as available-for-sale, which are reported at estimated fair value with unrealized gains and losses included in accumulated other comprehensive income and loss in stockholders' equity. Realized gains, realized losses and declines in the value of debt securities judged to be other-than-temporary are included in investment and other income, net. The cost of debt securities for purposes of computing realized and unrealized gains and losses is based on the specific identification method. Amortization of premiums and accretion of discounts on debt securities are included in investment and other income, net. Interest and dividends earned are included in investment and other income, net. We classify investments in debt securities maturing within one year of the reporting date, or where management's intent is to use the investments to fund current operations or to make them available for current operations, as short-term investments.

If the estimated fair value of a debt security is below its carrying value, we evaluate whether it is more likely than not that we will sell the security before its anticipated recovery in market value and whether evidence indicating that the cost of the investment is recoverable within a reasonable period of time outweighs evidence to the contrary. We also evaluate whether or not we intend to sell the investment. If the impairment is considered to be other-than-temporary, the security is written down to its estimated fair value. In addition, we consider whether credit losses exist for any securities. A credit loss exists if the present value of cash flows expected to be collected is less than the amortized cost basis of the security. Other-than-temporary declines in estimated fair value and credit losses are included in investment and other income, net.

Fair value of financial instruments

The recorded amounts of certain financial instruments, including cash and cash equivalents, interest receivable, accounts receivable, accounts payable and accrued liabilities approximate fair value due to their relatively short maturities. Investments that are classified as available-for-sale are recorded at estimated fair value. The estimated fair value for securities held is determined using quoted market prices, broker or dealer quotations, or alternative pricing sources with reasonable levels of price transparency.

Leases

We adopted Accounting Standards Codification, or ASC, Topic 842--Leases on January 1, 2019, resulting in a change to our accounting policy for leases. We recorded a liability to make lease payments and a right-of-use asset representing our right to use the underlying assets for the applicable lease terms in our consolidated balance sheet. We used the modified retrospective method transition option. Accordingly, 2018 comparative information has not been adjusted and continues to be reported under previous accounting standards.

We elected the "package of practical expedients", which permitted us not to reassess our prior conclusion about lease identification, lease classification and initial direct cost. We also elected the practical expedient to not separate lease and non-lease components for our real estate leases, and elected the short-term lease recognition exemption for our short-term leases, which allows us not to recognize lease liabilities and right-of-use assets on our consolidated balance sheet for leases with an original term of twelve months or less.

The adoption of the standard had a material impact on our consolidated balance sheet, did not have an impact on our consolidated statement of comprehensive income (loss), and there was no cumulative-effect adjustment to the opening accumulated deficit in the period of adoption. See Note 3 for additional information.

We determine if an arrangement is a lease at inception date. All of our leases are classified as operating leases. Operating lease liabilities and the corresponding right-of-use assets are recognized based on the present value of the future minimum lease payments over the lease term at commencement date. The operating lease right-of-use asset also excludes lease incentives and initial direct costs incurred. As our existing leases do not contain an implicit interest rate, we estimate our incremental borrowing rate based on information available at commencement date in determining the present value of future payments. We include options to extend the lease in our lease liability and right-of-use asset when it is reasonably certain that we will exercise that option. Our lease agreements do not contain any material residual value guarantees or material restrictive covenants. Variable lease cost primarily includes building operating expenses as charged to us by our landlords.

Lease expense for minimum lease payments is recognized on a straight-line basis over the lease term. For our short-term leases, we recognize lease payments as an expense on a straight-line base over the lease term.

Inventories

We consider regulatory approval of product candidates to be uncertain. Accordingly, we charge manufacturing costs to research and development expense until such time as a product has received regulatory approval for commercial sale. Production costs for our marketed products are capitalized into inventory. Inventory that is deployed for clinical, research or development use is charged to research and development expense when it is no longer available for commercial sales. Production costs for our other product candidates continue to be charged to research and development expense.

We value our inventories at the lower of cost or market value. Cost is determined on a specific identification basis. Inventory includes the cost of materials, third-party contract manufacturing and overhead associated with the production of our commercialized products. In the event that we identify excess, obsolete or unsalable inventory, its value is written down to net realizable value.

Property and equipment

Property and equipment are stated at cost. Land is not depreciated, while all other property and equipment are depreciated using the straight-line method over the estimated useful lives of the assets, which are generally as follows:

	Years
Building	30
Laboratory and manufacturing equipment	5-15
Furniture and fixtures	5
Computers, software and office equipment	3

Leasehold improvements are amortized over the shorter of the remaining term of the applicable lease or the useful life of the asset. Gains and losses from the disposal of property and equipment are reflected in income or loss at the time of disposition and have not been significant. Expenditures for additions and improvements to our facilities are capitalized and expenditures for maintenance and repairs are charged to expense as incurred.

Business combinations, including acquired in-process research and development and goodwill

We account for business combinations using the acquisition method, recording the acquisition-date fair value of total consideration over the acquisition-date fair value of net assets acquired as goodwill.

Fair value is typically estimated using an income approach based on the present value of future discounted cash flows. The significant estimates in the discounted cash flow model primarily include the discount rate, and rates of future revenue and expense growth and/or profitability of the acquired business. The discount rate considers the relevant risk associated with business-specific characteristics and the uncertainty related to the ability to achieve the projected cash flows. We may record adjustments to the fair values of assets acquired and liabilities assumed within the measurement period (up to one year from the acquisition date).

In-process research and development assets are accounted for as indefinite-lived intangible assets and maintained on the balance sheet until either the underlying project is completed or the asset becomes impaired. If the project is completed, which generally occurs when FDA approval is obtained, the carrying value of the related intangible asset is amortized to cost of sales on a straight-line basis over the estimated useful life of the asset beginning in the period in which the project is completed. We periodically evaluate when facts or circumstances indicate that the carrying value of these assets may not be recoverable. If the asset becomes impaired or is abandoned, the carrying value of the related intangible asset is written down to its fair value and an impairment charge is recorded in the period in which the impairment occurs.

We evaluate indefinite-lived intangible assets and goodwill for impairment annually, as of October 1, or more frequently when events or circumstances indicate that impairment may have occurred. As part of the impairment evaluation, we may elect to perform an assessment of qualitative factors. If this qualitative assessment indicates that it is more likely than not that the fair value of the indefinite-lived intangible asset or the reporting unit (for goodwill) is less than its carrying value, we then would proceed with the quantitative impairment test to compare the fair value to the carrying value and record an impairment charge if the carrying value exceeds the fair value.

Acquisition-related costs, including banking, legal, accounting, valuation, and other similar costs, are expensed in the period in which the costs are incurred. The results of operations of the acquired business are included in the consolidated financial statements from the acquisition date.

Intangible assets, net

Our intangible assets are primarily comprised of acquired TUKYSA technology from the acquisition of Cascadian Therapeutics, Inc. in 2018. Upon FDA approval and commercial launch of TUKYSA in April 2020, we classified in-process research and development costs related to the acquired TUKYSA technology as finite-lived intangible assets. Prior to 2020, our finite-lived intangible assets consisted of certain in-licensed ADCETRIS technology. Amortization expense of $16.3 million related to acquired TUKYSA technology costs for the year ended December 31, 2020, was included in cost of sales in our consolidated statements of comprehensive income (loss). The gross carrying value and accumulated amortization of our finite-lived intangible assets was $305.7 million and $22.0 million respectively as of December 31, 2020, and gross carrying value and accumulated amortization of our finite-lived intangible assets was $5.7 million and $5.6 million respectively as of December 31, 2019. The weighted average useful life of our finite-lived intangible assets was 12 years as of December 31, 2020, and estimated future amortization expense related to acquired TUKYSA technology costs is $23.1 million for each of the years ending December 31, 2021 through December 31, 2025.

Impairment of long-lived assets (other than acquired in-process research and development and goodwill)

We assess the impairment of long-lived assets, including intangible assets and property and equipment, whenever events or changes in business circumstances indicate that the carrying amounts of the assets may not be fully recoverable. When such events occur, we determine whether there has been an impairment in value by comparing the asset's carrying value with its fair value, as measured by the anticipated undiscounted net cash flows of the asset. If an impairment in value exists, the asset is written down to its estimated fair value. We have not recognized any impairment losses through December 31, 2020 as there have been no events warranting an impairment analysis. Our long-lived assets are primarily located in the U.S.

Revenue recognition - Net product sales

We adopted ASC Topic 606--Revenue from Contracts with Customers on January 1, 2018, resulting in a change to our accounting policy for revenue recognition. We used the modified retrospective method transition option and recognized the cumulative effect of initially applying ASC Topic 606 as an adjustment to decrease the opening accumulated deficit at January 1, 2018. See Note 2 for additional information.

We sell ADCETRIS, PADCEV and TUKYSA through a limited number of specialty distributors and specialty pharmacies. We and our collaboration partner Astellas jointly promote PADCEV in the U.S. Under the joint promotion in the U.S., we record net sales of PADCEV and are responsible for all distribution through a limited number of specialty distributors. The delivery of our products represents a single performance obligation for these transactions and we record net product sales at the point in time when title and risk of loss pass. The transaction price for net product sales represents the amount we expect to receive, which is net of estimated government-mandated rebates and chargebacks, distribution fees, estimated product returns, and other deductions. Accruals are established for these deductions, and actual amounts incurred are offset against applicable accruals. We reflect these accruals as either a reduction in the related account receivable from the distributor or as an accrued liability, depending on the nature of the sales deduction. Sales deductions are based on management's estimates that consider payor mix in target markets and experience to-date. These estimates involve a substantial degree of judgment. We have applied a portfolio approach as a practical expedient for estimating net product sales.

Government-mandated rebates and chargebacks: We have entered into a Medicaid Drug Rebate Agreement, or MDRA, with the Centers for Medicare & Medicaid Services. This agreement provides for a rebate based on covered purchases of our products. Medicaid rebates are invoiced to us by the various state Medicaid programs. We estimate Medicaid rebates using the expected value approach, based on a variety of factors, including payor mix and our experience to-date.

We have a Federal Supply Schedule, or FSS, agreement under which certain U.S. government purchasers receive a discount on eligible purchases of our products. In addition, we have entered into a Pharmaceutical Pricing Agreement with the Secretary of Health and Human Services, which enables certain entities that qualify for government pricing under the Public Health Services Act, or PHS, to receive discounts on their qualified purchases of our products. Under these agreements, distributors process a chargeback to us for the difference between wholesale acquisition cost and the applicable discounted price. We estimate expected chargebacks for FSS and PHS purchases based on the expected value of each entity's eligibility for the FSS and PHS programs. We also review historical rebate and chargeback information to further refine these estimates.

Distribution fees, product returns and other deductions: Our distributors charge a volume-based fee for distribution services that they perform for us. We allow for the return of product that is within a specified number of days of its expiration date or that is damaged. We estimate product returns based on our experience to-date using the expected value approach. We provide financial assistance to qualifying patients that are underinsured or cannot cover the cost of commercial coinsurance amounts through our patient support programs. Estimated contributions for commercial coinsurance under SeaGen Secure are deducted from gross sales and are based on an analysis of expected plan utilization. These estimates are adjusted as necessary to reflect our actual experience.

Revenue recognition - Royalty revenues

Royalty revenues primarily reflect amounts earned under the ADCETRIS collaboration with Takeda. These royalties include commercial sales-based milestones and sales royalties that relate predominantly to the license of intellectual property. Sales royalties are based on a percentage of Takeda's net sales of ADCETRIS, with rates that range from the mid-teens to the mid-twenties based on annual net sales tiers. Takeda bears a portion of low single digit third-party royalty costs owed on its sales of ADCETRIS. This amount is included in royalty revenues. Amounts owed to our third-party licensors related to Takeda's sales of ADCETRIS are recorded in cost of sales. These amounts are recognized in the period in which the related sales by Takeda occur. Royalty revenues also reflect amounts from Genentech, Inc., a member of the Roche Group, or Genentech, earned on net sales of Polivy, and amounts from GlaxoSmithKline earned on net sales of Blenrep.

Revenue recognition - Collaboration and license agreement revenues

We have collaboration and license agreements for our technology with a number of biotechnology and pharmaceutical companies. Under these agreements, we typically receive or are entitled to receive upfront cash payments and progress- and sales-dependent milestones for the achievement by our licensees of certain events, and annual maintenance fees and support fees for research and development services and materials provided under the agreements. We also are entitled to receive royalties on net sales of any resulting products incorporating our technology. Our licensees are solely responsible for research, product development, manufacturing and commercialization of any product candidates under these collaborations, which includes the achievement of the potential milestones. Since we may not take a substantive role or control the research, development or commercialization of any products generated by some of our licensees, we may not able to reasonably estimate when, if at all, any potential future milestone payments or royalties may be payable to us by our licensees. As such, the potential future milestone payments associated with certain of our collaboration and license agreements involve a substantial degree of uncertainty and risk that they may never be received.

Collaboration and license agreements are initially evaluated as to whether the intellectual property licenses granted by us represent distinct performance obligations. If they are determined to be distinct, the value of the intellectual property licenses would be recognized up-front while the research and development service fees would be recognized as the performance obligations are satisfied. Variable consideration is assessed at each reporting period as to whether it is not subject to future reversal of cumulative revenue and, therefore, should be included in the transaction price. Assessing the recognition of variable consideration requires significant judgment. If a contract includes a fixed or minimum amount of research and development support, this also would be included in the transaction price. Changes to collaboration and license agreements, such as the extensions of the research term or increasing the number of targets or technology covered under an existing agreement, are assessed for whether they represent a modification or should be accounted for as a new contract.

We have concluded that the license of intellectual property in certain collaboration and license agreements is not distinct from the perspective of our customers at the time of initial transfer, since we often do not license intellectual property without related technology transfer and research and development support services. Such evaluation requires significant judgment since it is made from the customer's perspective. Our performance obligations under our collaborations may include such things as providing intellectual property licenses, performing technology transfer, performing research and development consulting services, providing reagents, ADCs, and other materials, and notifying the customer of any enhancements to licensed technology or new technology that we discover, among others. We determined our performance obligations under certain collaboration and license agreements as evaluated at contract inception were not distinct and represented a single performance obligation. For those agreements, revenue is recognized using a proportional performance model, representing the transfer of goods or services as activities are performed over the term of the agreement. Upfront payments are also amortized to revenue over the performance period. Upfront payment contract liabilities resulting from our collaborations do not represent a financing component as the payment is not financing the transfer of goods or services, and the technology underlying the licenses granted reflects research and development expenses already incurred by us. For agreements beyond the initial performance period, we have no remaining performance obligations. We may receive license maintenance fees and potential milestones and royalties based on collaborator development and regulatory progress, which are recorded in the period achieved in the case of milestones, and during the period of the related sales for royalties.

When no performance obligations are required of us, or following the completion of the performance obligation period, such amounts are recognized upon transfer of control of the goods or services to the customer. Generally, all amounts received or due other than sales-based milestones and royalties are classified as collaboration and license agreement revenues. Sales-based milestones and royalties are recognized as royalty revenue in the period the related sale occurred.

We generally invoice our collaborators and licensees on a monthly or quarterly basis, or upon the completion of the effort or achievement of a milestone, based on the terms of each agreement. Deferred revenue arises from amounts received in advance of the culmination of the earnings process and is recognized as revenue in future periods as performance obligations are satisfied. Deferred revenue expected to be recognized within the next twelve months is classified as a current liability.

Research and development expenses

Research and development, or R&D, expenses consist of salaries, benefits and other headcount-related costs of our R&D staff, preclinical activities, clinical trials and related manufacturing costs, lab supplies, contract and outside service fees and facilities and overhead expenses for research, development and preclinical studies focused on drug discovery, development and testing. R&D activities are expensed as incurred.

Clinical trial expenses are a significant component of research and development expenses, and we outsource a significant portion of these costs to third parties. Third-party clinical trial expenses include investigator fees, site costs, clinical research organization costs, and costs for central laboratory testing and data management. Costs associated with activities performed under co-development collaborations are reflected in R&D expense. In-licensing fees, milestones, maintenance fees and other costs to acquire technologies utilized in R&D for product candidates that have not yet received regulatory approval and that are not expected to have alternative future use are expensed when incurred. Non-refundable advance payments for goods or services that will be used or rendered for future R&D activities are capitalized and recognized as expense as the related goods are delivered or the related services are performed. This results in the temporary deferral of recording expense for amounts incurred for research and development activities from the time payments are made until the time goods or services are provided.

Advertising

Advertising costs are expensed as incurred. We incurred $59.3 million, $33.5 million, and $26.6 million in advertising expenses during 2020, 2019, and 2018, respectively.

Concentration of credit risk

Cash, cash equivalents and investments are invested in accordance with our investment policy. The policy includes guidelines for the investment of cash reserves and is reviewed periodically to minimize credit risk. Most of our investments are in U.S. Treasury securities and are not federally insured. We have accounts receivable from the sale of our products from a small number of distributors, and from our collaborators. We do not require collateral on amounts due from our distributors or our collaborators and are therefore subject to credit risk.

Allowance for doubtful accounts

We estimate an allowance for doubtful accounts based on our assessment of the collectability of customer accounts. We regularly review the allowance by considering factors such as historical experience, credit quality, the age of the accounts receivable balances, and current economic conditions that may affect a customer's ability to pay. As of December 31, 2020 and 2019, there was no allowance for doubtful accounts, and we recognized no bad debt expense during the years ending December 31, 2020, 2019, and 2018.

Geographic and customer information

Substantially all of our assets and revenues are related to operations in the U.S.; however, we have multiple subsidiaries in foreign jurisdictions, including several subsidiaries in Europe. We sell our products through a limited number of distributors and specialty pharmacies.

The following table presents each major distributor or collaborator that comprised more than 10% of total revenue:

	Years ended December 31,		
	2020	2019	2018
Distributor A	18 %	26 %	28 %
Distributor B	15 %	21 %	22 %
Distributor C	10 %	18 %	20 %
Collaborator B	45 %	— %	— %
Collaborator A	7 %	27 %	21 %

The following table presents each major distributor or collaborator that accounted for more than 10% of accounts receivable:

	December 31,	
	2020	2019
Distributor A	32 %	24 %
Distributor B	25 %	19 %
Distributor C	16 %	16 %
Collaborator A	13 %	33 %

Major suppliers

The use of a relatively small number of contract manufacturers to supply drug necessary for our commercial and clinical operations create a concentration of risk for us. While primarily one source of supply is utilized for certain components of ADCETRIS, PADCEV, TUKYSA and each of our clinical product candidates, other sources are available should we need to change suppliers. For PADCEV, in particular, we rely on Astellas for both commercial and clinical supply as Astellas oversees the manufacturing supply chain. As a form of reducing near-term risk, we also endeavor to maintain reasonable levels of drug supply inventory across the supply chain. A change in suppliers or disruption at one of our suppliers, however, could cause a delay or interruption in delivery of drug or clinical trials. Such an event would adversely affect our business.

Income taxes

We recognize deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements or tax returns. Deferred tax assets and liabilities are determined based on the differences between the financial statement and tax bases of assets and liabilities using tax rates in effect for the year in which the differences are expected to reverse. We have provided a valuation allowance against substantially all our deferred tax assets for all periods presented. A valuation allowance is recorded when it is more likely than not that the net deferred tax asset will not be realized. We follow the guidance related to accounting for uncertainty in income taxes, which requires the recognition of an uncertain tax position when it is more likely than not to be sustainable upon audit by the applicable taxing authority.

Share-based compensation

We use the graded-vesting attribution method for recognizing compensation expense for our stock options and restricted stock units, or RSUs. Compensation expense is recognized over the requisite service periods on awards ultimately expected to vest and reduced for forfeitures that are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. For performance-based stock options and RSUs, we record compensation expense over the estimated service period once the achievement of the performance-based milestone is considered probable. At each reporting date, we assess whether achievement of a milestone is considered probable, and if so, record compensation expense based on the portion of the service period elapsed to date with respect to that milestone, with a cumulative catch-up, net of estimated forfeitures. We will recognize remaining compensation expense with respect to a milestone, if any, over the remaining estimated service period.

Long-term incentive plans

We have established Long-Term Incentive Plans, or LTIPs. The LTIPs provide eligible employees with the opportunity to receive performance-based incentive compensation, which may be comprised of cash, stock options, and/or RSUs. The payment of cash and the grant and/or vesting of equity are contingent upon the achievement of pre-determined regulatory milestones. We record compensation expense over the estimated service period for each milestone subject to the achievement of the milestone being considered probable in accordance with the provisions of ASC Topic 450--Contingencies. At each reporting date, we assess whether achievement of a milestone is considered probable and, if so, record compensation expense based on the portion of the service period elapsed to date with respect to that milestone, with a cumulative catch-up, net of estimated forfeitures. We recognize compensation expense with respect to a milestone over the remaining estimated service period.

The total estimate of unrecognized compensation expense could change in the future for several reasons, including the addition or termination of employees, the recognition of LTIP compensation expense, or the addition, termination, or modification of an LTIP.

Comprehensive income (loss)

Comprehensive income (loss) is the change in stockholders' equity from transactions and other events and circumstances other than those resulting from investments by stockholders and distributions to stockholders. Our comprehensive income (loss) is comprised of net income (loss), unrealized gains and losses on available-for-sale securities, net of income tax provision and foreign currency translation adjustments, net of income tax provision.

Loss contingencies

We are involved in various legal proceedings in the normal course of business. A loss contingency is recorded if it is probable that an asset has been impaired or a liability has been incurred and the amount of the loss can be reasonably estimated. We evaluate, among other factors, the probability of an unfavorable outcome and our ability to make a reasonable estimate and the amount of the ultimate loss. Loss contingencies that are determined to be reasonably possible, but not probable, are disclosed but not recorded. Legal fees incurred as a result of our involvement in legal procedures are expensed as incurred.

Certain risks and uncertainties

Our revenues are derived from net product sales, royalties, and from collaboration and license agreements. Our products are subject to regulation by the FDA in the U.S. and other regulatory agencies outside the U.S. as well as competition by other pharmaceutical companies. Our collaboration and license agreement revenues are derived from a relatively small number of agreements. Each of these agreements can be terminated by our collaborators at their discretion. We are also subject to risks common to companies in the pharmaceutical industry, including risks and uncertainties related to commercial success and acceptance of our products and our potential future products by patients, physicians and payers, competition from other products, regulatory approvals, regulatory requirements, business combinations and product or product candidate acquisition and in-licensing transactions, and protection of intellectual property. Also, drug development is a lengthy process characterized by a relatively low rate of success. We may commit substantial resources toward developing product candidates that never result in further development, achieve regulatory approvals or achieve commercial success. Likewise, we have committed and expect to continue to commit substantial resources towards additional clinical development of our products in an effort to continue to expand our products' labeled indications of use, and there can be no assurance that we and/or our partners will obtain and maintain the necessary regulatory approvals to market our products for any additional indications.

Guarantees

In the normal course of business, we indemnify our directors, certain employees and other parties, including distributors, collaboration partners, lessors and other parties that perform certain work on behalf of, or for us to take licenses to our technologies. We have agreed to hold these parties harmless against losses arising from our breach of representations or covenants, intellectual property infringement or other claims made against these parties in performance of their work with us. These agreements typically limit the time within which the party may seek indemnification by us and the amount of the claim. It is not possible to prospectively determine the maximum potential amount of liability under these indemnification agreements. Further, each potential claim would be based on the unique facts and circumstances of the claim and the particular provisions of each agreement.

Recent accounting pronouncements adopted

In June 2016, Financial Accounting Standards Board, or FASB, issued "ASU 2016-13, Financial Instruments: Credit Losses," as clarified in ASU 2019-04 and ASU 2019-05. The objective of the standard is to provide information about expected credit losses on financial instruments at each reporting date and to change how other-than-temporary impairments on investment securities are recorded. We adopted this standard on January 1, 2020 using the modified retrospective transition method. The adoption of this ASU had no material impact on our current or previously reported financial condition, results of operations, cash flows, and financial statement disclosures.

In August 2018, FASB issued "ASU 2018-15, Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract." The objective of the standard is to align 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 on a prospective basis. The adoption of this ASU did not have a material impact on our financial condition, results of operations, cash flows, and financial statement disclosures. Capitalized implementation costs are included in prepaid expenses and other current assets or other non-current assets.

In November 2018, FASB issued "ASU 2018-18, Clarifying the Interaction between Topic 808 and Topic 606." The objective of the standard is to clarify the interaction between ASC Topic 808--Collaborative Arrangements and ASC Topic 606--Revenue from Contracts with Customers. Currently, ASC Topic 808 does not provide comprehensive recognition or measurement guidance for collaborative arrangements, and the accounting for those arrangements is often based on an analogy to other accounting literature or an accounting policy election. Similarly, aspects of ASC Topic 606 have resulted in uncertainty in practice about the effect of the revenue standard on the accounting for collaborative arrangements. We adopted this standard on January 1, 2020 on a retrospective basis to contracts that were not completed. The adoption of this ASU did not change the way we previously accounted for any of our collaboration arrangements under ASC Topic 808, thus had no impact on our current or previously reported financial condition, results of operations, cash flows, and financial statement disclosures.

In December 2019, the FASB issued "ASU 2019-12, Simplifying the Accounting for Income Taxes." The objective of the standard is to improve areas of GAAP by removing certain exceptions permitted by ASC Topic 740--Income Taxes and clarifying existing guidance to facilitate consistent application. The standard is effective for us beginning on January 1, 2021. We are currently evaluating the new standard to determine the potential impact on our financial condition, results of operations, cash flows, or financial statement disclosures.

2. Revenue from contracts with customers

The following table presents our disaggregated revenue for the years presented:

	Years ended December 31,		
(dollars in thousands)	2020	2019	2018
ADCETRIS	$ 658,577	$ 627,733	$ 476,903
PADCEV	222,436	244	—
TUKYSA	119,585	—	—
Net product sales	$ 1,000,598	$ 627,977	$ 476,903
Royalty revenues	$ 126,756	$ 138,491	$ 83,440
Merck	$ 975,150	$ —	$ —
Takeda	32,107	108,175	58,605
Other	40,925	42,070	35,752
Collaboration and license agreement revenues	$ 1,048,182	$ 150,245	$ 94,357
Total revenues	$ 2,175,536	$ 916,713	$ 654,700

Substantially all of our product revenues during the years ended December 31, 2020, 2019, and 2018 were recorded in the U.S. Royalty revenues primarily reflect royalties earned under the ADCETRIS collaboration with Takeda.

In 2019, other collaboration and license agreement revenues included $20.0 million from BeiGene, Ltd., or BeiGene. BeiGene is a related party due to a common shareholder that has a representative or representatives serving on each company's respective Board of Directors.

Contract balances and performance obligations

We had no contract assets or liabilities as of December 31, 2020 and 2019. We recognized collaboration and license agreement revenues of $0, $33.6 million and $34.5 million during the years ended December 31, 2020, 2019, and 2018, respectively, that were included in deferred revenue as of the beginning of the respective years.

On January 1, 2018, we adopted ASC Topic 606 applying the modified retrospective method transition option to all contracts that were not completed as of January 1, 2018. We recorded the following cumulative effect as of January 1, 2018:

(dollars in thousands)		
Collaboration and license agreement revenues	$	10,281
Royalty revenues		22,230
Cost of royalty revenues	$	(5,955)
Accumulated deficit – (debit) credit	$	26,556

3. Operating leases

We have operating leases for our office and laboratory facilities with terms that expire from 2021 through 2029. Upon adoption of ASC Topic 842--Leases on January 1, 2019, we recognized $35.2 million of operating lease liabilities and $34.7 million of operating lease right-of-use assets for our existing leases on our consolidated balance sheet. During the years ended December 31, 2020 and 2019, we recorded $7.2 million and $40.3 million, respectively, of right-of-use assets in exchange for lease liabilities, which has been treated as a non-cash operating activity. All of our significant leases include options for us to extend the lease term. None of our options to extend the rental term of any existing leases were considered reasonably certain as of December 31, 2020.

Supplemental operating lease information was as follows:

	Years ended December 31,	
(dollars in thousands, except term and rate)	**2020**	**2019**
Operating lease cost	$ 15,013	$ 13,590
Variable lease cost	3,937	2,958
Total lease cost	$ 18,950	$ 16,548
Cash paid for amounts included in measurement of lease liabilities	$ 14,265	$ 10,197
Weighted average remaining lease term (in years)	6.16	7.04
Weighted average discount rate	5.2 %	5.4 %

Rent expense attributable to non-cancelable operating leases totaled approximately $16.6 million, $14.6 million, and $8.7 million for the years ended December 31, 2020, 2019, and 2018, respectively.

Operating lease liabilities were recorded in the following captions of our consolidated balance sheet as follows:

	December 31,	
(dollars in thousands)	2020	2019
Accrued liabilities and other	$ 12,749	$ 9,445
Operating lease liabilities, long-term	61,884	67,607
Total	$ 74,633	$ 77,052

As of December 31, 2020, future minimum lease payments under the lease agreements were as follows:

(dollars in thousands)	
Years ending December 31,	
2021	$ 16,337
2022	15,650
2023	15,030
2024	11,147
2025	7,510
Thereafter	22,656
Total future minimum lease payments	88,330
Less: imputed interest	(13,697)
Total	$ 74,633

4. Acquisition of Cascadian

In 2018, we acquired all issued and outstanding shares of Cascadian, a clinical-stage biopharmaceutical company based in Seattle, Washington, for $10.00 per share in cash, or approximately $614.1 million, which was funded by an underwritten public offering as further described in Note 15. The acquisition of Cascadian expanded our late-stage pipeline, providing global rights to TUKYSA.

The acquisition of Cascadian was accounted for as a business combination. During the year ended December 31, 2018, we incurred $8.5 million in acquisition-related costs, which were recorded in selling, general and administrative expenses.

The purchase price allocation of the assets acquired and liabilities assumed based on their estimated fair values as of the acquisition date was as follows:

(dollars in thousands)	
Cash and cash equivalents	$ 15,919
Short-term and long-term investments	66,491
Prepaid expenses and other assets	2,215
Property and equipment	566
In-process research and development	300,000
Goodwill	274,671
Accounts payable and accrued liabilities	(22,139)
Deferred tax liability	(23,653)
Total purchase price	$ 614,070

The amount allocated to in-process research and development was based on the present value of future discounted cash flows, which was based on significant estimates. These estimates included the number of potential patients and market price of a future TUKYSA-based regimen, costs required to conduct clinical trials and potentially commercialize TUKYSA, as well as estimates for probability of success and the discount rate. Goodwill primarily was attributed to TUKYSA's potential application in other treatment settings, intangible assets that do not qualify for separate recognition, and synergies with our existing pipeline and capabilities. Goodwill is not expected to be deductible for tax purposes.

5. Fair Value

We have certain assets that are measured at fair value on a recurring basis according to a fair value hierarchy that prioritizes the inputs, assumptions and valuation techniques used to measure fair value. The three levels of the fair value hierarchy are:

Level 1: Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities.

Level 2: Quoted prices in markets that are not active or financial instruments for which all significant inputs are observable, either directly or indirectly.

Level 3: Prices or valuations that require inputs that are both significant to the fair value measurement and unobservable.

The determination of a financial instrument's level within the fair value hierarchy is based on an assessment of the lowest level of any input that is significant to the fair value measurement. We consider observable data to be market data which is readily available, regularly distributed or updated, reliable and verifiable, not proprietary, and provided by independent sources that are actively involved in the relevant market.

The following table summarized the type of assets measured at fair value on a recurring basis by level within the fair value hierarchy:

	Fair value measurement using:			
(dollars in thousands)	Quoted prices in active markets for identical assets (Level 1)	Other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
December 31, 2020				
Short-term investments—U.S. Treasury securities	$ 2,000,996	$ —	$ —	$ 2,000,996
Long-term investments—U.S. Treasury securities	100,830	—	—	100,830
Total	$ 2,101,826	$ —	$ —	$ 2,101,826
December 31, 2019				
Short-term investments—U.S. Treasury securities	$ 536,493	$ —	$ —	$ 536,493
Long-term investments—U.S. Treasury securities	57,283	—	—	57,283
Other non-current assets—equity securities	163,936	—	—	163,936
Total	$ 757,712	$ —	$ —	$ 757,712

Our short- and long-term investments portfolio predominantly contains investments in U.S. Treasury and other U.S. government-backed securities. We review our portfolio based on the underlying risk profile of the securities and also regularly review the securities in an unrealized loss position and evaluate the current expected credit loss by considering factors such as historical experience, market data, issuer-specific factors, and current economic conditions. During the years ended December 31, 2020 and 2019, we recognized no year-to-date credit loss related to our short- and long-term investments, and had no allowance for credit loss recorded as of December 31, 2020.

Our debt securities consisted of the following:

(dollars in thousands)	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
December 31, 2020				
U.S. Treasury securities	$ 2,101,801	$ 259	$ (234)	$ 2,101,826
Contractual maturities (at date of purchase):				
Due in one year or less	$ 1,791,399			$ 1,791,239
Due in one to two years	310,402			310,587
Total	$ 2,101,801			$ 2,101,826
December 31, 2019				
U.S. Treasury securities	$ 593,565	$ 236	$ (25)	$ 593,776
Contractual maturities (at date of purchase):				
Due in one year or less	$ 466,439			$ 466,547
Due in one to two years	127,126			127,229
Total	$ 593,565			$ 593,776

6. Investment and Other Income, Net

Investment and other income, net consisted of the following:

	Years ended December 31,		
(dollars in thousands)	2020	2019	2018
Gain on equity securities	$ 11,604	$ 50,124	$ 7,336
Investment and other income, net	7,245	11,771	6,316
Total investment and other income, net	$ 18,849	$ 61,895	$ 13,652

Gain on equity securities includes the realized and unrealized holding gains and losses on our equity securities. In 2020, we sold our all our common stock holdings for $174.7 million.

7. Inventories

Inventories consisted of the following:

	December 31,	
(dollars in thousands)	2020	2019
Raw materials	$ 99,049	$ 78,285
Finished goods	17,087	7,647
Total	$ 116,136	$ 85,932

8. Property and equipment

Property and equipment consisted of the following:

(dollars in thousands)	December 31, 2020	December 31, 2019
Leasehold improvements	$ 204,918	$ 154,606
Laboratory and manufacturing equipment	78,724	68,226
Building	23,341	23,341
Computers, software and office equipment	45,141	37,154
Furniture and fixtures	15,825	11,758
Land	4,771	4,771
	372,720	299,856
Less: accumulated depreciation and amortization	(176,020)	(144,365)
Total	$ 196,700	$ 155,491

Depreciation and amortization expenses on property and equipment totaled $36.0 million, $23.8 million, and $25.3 million for the years ended December 31, 2020, 2019, and 2018, respectively. Leasehold improvements included $24.5 million and $62.2 million of construction in process at December 31, 2020 and 2019, respectively.

9. Accrued liabilities

Accrued liabilities consisted of the following:

(dollars in thousands)	December 31, 2020	December 31, 2019
Employee compensation and benefits	$ 96,902	$ 74,835
Clinical trial and related costs	69,756	37,418
Contract manufacturing	20,765	13,866
Gross-to-net deductions and third-party royalties	52,565	37,662
Operating lease liability, current	12,749	9,445
Collaborator contract liability – short-term	30,130	—
Professional services and other	27,204	33,839
Total	$ 310,071	$ 207,065

10. Income taxes

Our pre-tax income (loss) by jurisdiction consisted of the following:

(dollars in thousands)	Years ended December 31, 2020	2019	2018
U.S.	$ 613,054	$ (160,189)	$ (226,626)
Foreign	2,647	1,539	(19,720)
Total	$ 615,701	$ (158,650)	$ (246,346)

A reconciliation of the federal statutory income tax rate to the effective income tax rate is as follows:

	Years ended December 31,		
	2020	2019	2018
Statutory federal income tax rate	21.0 %	(21.0)%	(21.0)%
Tax credits	(5.4)	(11.0)	(6.0)
Foreign rate differential	—	—	(8.0)
State income taxes and other	1.5	(4.7)	(3.7)
Valuation allowance	(8.4)	37.1	44.0
Stock compensation	(8.4)	(6.4)	(3.2)
Non-deductible asset basis	—	6.0	—
Worthless stock deduction	—	—	(12.1)
Effective tax rate	0.3 %	0.0 %	(10.0)%

For the year ended December 31, 2020, we recorded a provision for income taxes of $2.0 million, consisting primarily of $3.7 million of current state taxes offset by a net $1.7 million deferred foreign tax benefit primarily related to the release of a valuation allowance on our foreign deferred tax asset for net operating losses. We utilized net operating loss carryforwards to reduce any federal tax liability, and we incurred state tax liabilities of $3.7 million due to certain states with current limitations on the utilization of net operating losses.

In 2019, we did not record any income tax expense or benefit due to a tax loss position. In 2018, we recognized a deferred tax liability of $23.7 million on acquired intangible assets in connection with the acquisition of Cascadian. As a result, we recorded an income tax benefit of $23.7 million for the release of valuation allowance on our existing U.S. deferred tax assets as a result of the offset of deferred tax liabilities established for intangible assets from the acquisition.

The foreign rate differential in the table above reflects the effect of operations in jurisdictions with tax rates that differ from the rate in the U.S. The change in foreign rate differential from 2018 to 2019 was primarily due to the one-time impact of foreign entity restructuring in 2018. As of December 31, 2020, unremitted earnings of our foreign subsidiaries will be retained indefinitely by the foreign subsidiaries for continuing investment. If foreign earnings were to be repatriated to the U.S., we could be subject to additional state income and withholding taxes.

Our net deferred tax assets consisted of the following:

(dollars in thousands)	December 31, 2020	2019
Deferred tax assets:		
Net operating loss carryforwards	$ 228,041	$ 331,124
Foreign net operating loss carryforwards	8,341	3,527
Tax credit carryforwards	224,233	193,552
Share-based compensation	33,315	34,869
Allowance and accruals	29,355	26,625
Operating lease liabilities	16,596	18,597
Inventory	19,402	3,815
Capitalized research and development	4,139	4,732
Depreciation	—	9,430
Other	—	1,133
Total deferred tax assets	563,422	627,404
Less: valuation allowance	(489,519)	(536,316)
Total deferred tax assets, net of valuation allowance	73,903	91,088
Deferred tax liability:		
Right-of-use assets	(13,647)	(17,125)
Intangibles and amortization	(46,018)	(50,725)
Depreciation	(10,215)	—
Unrealized gain on available-for-sale securities	—	(20,064)
Other	(1,970)	(3,174)
Net deferred tax assets	$ 2,053	$ —

Our deferred tax assets primarily consist of net operating loss (NOL) carryforwards, tax credit carryforwards, share-based compensation, allowance and accruals, operating lease liabilities, inventory, and capitalized research and development expense. Realization of deferred tax assets is dependent upon a number of factors, including future earnings, the timing and amount of which is uncertain. The assessment regarding whether a valuation allowance is required considers the evaluation of both positive and negative evidence when concluding whether it is more likely than not that deferred tax assets are realizable. Based upon a review of available evidence, we determined that it is not more likely than not that the U.S. deferred tax assets will be realized, and therefore the deferred tax assets have been fully offset by a valuation allowance. During the year ended December 31, 2020, we released $2.1 million of valuation allowance on our foreign NOL carryforward deferred tax asset.

At December 31, 2020, we had gross federal NOL carryforwards of $971.0 million, of which $391.2 million may be carried forward indefinitely and $579.8 million of which expire from 2021 to 2037 if not utilized, gross state NOL carryforwards of $367.7 million, gross foreign NOL carryforwards of $42.3 million and tax credit carryforwards of $247.3 million expiring from 2021 to 2040.

Utilization of the NOL and tax credit carryforwards may be subject to a substantial annual limitation in the event of a change in ownership as set forth in Section 382 of the Internal Revenue Code of 1986, as amended. We have evaluated ownership changes through the year ended December 31, 2019 and believe that it is likely that utilization of its NOLs would not be limited under Section 382 as of December 31, 2019. It is possible that there has been or may be a change in ownership after this date, which would limit our ability to utilize our NOLs. Any limitation may result in the expiration of the NOLs and tax credit carryforwards before utilization.

The valuation allowance decreased by $46.8 million in 2020, increased by $58.5 million in 2019, and increased by $113.3 million in 2018, which was mostly related to the changes in our deferred tax asset balances. The 2020 decrease in the valuation allowance is primarily due to the current year net operating loss utilization, partially offset by tax credit generation. The 2019 increase in the valuation allowance is related to the loss, tax credits generated, and other activity. The 2018 increase in the valuation allowance included a $143.3 million increase related to the loss, tax credits and other activity in 2018, offset by a $23.7 million decrease for release of valuation allowance related to the deferred tax assets and liabilities acquired from Cascadian and a $6.3 million decrease due to the adoption of ASC Topic 606.

The financial statement recognition of the benefit for a tax position is dependent upon the benefit being more likely than not to be sustainable upon audit by the applicable taxing authority. If this threshold is met, the tax benefit is then measured and recognized at the largest amount that is greater than 50% likely of being realized upon ultimate settlement. A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

	Years ended December 31,		
(dollars in thousands)	2020	2019	2018
Balance at January 1	$ 24,018	$ 20,706	$ 18,172
Increase (decrease) related to prior year tax positions	(4,008)	—	108
Increase related to current year tax positions	3,068	3,312	2,426
Balance at December 31	$ 23,078	$ 24,018	$ 20,706

We do not anticipate any significant changes to our unrecognized tax positions or benefits during the next twelve months. Interest and penalties related to the settlement of uncertain tax positions, if any, will be reflected in income tax expense. Tax years 2001 to 2020 remain subject to future examination for federal and foreign income taxes.

11. Collaboration and license agreements

We have collaboration and license agreements with a number of pharmaceutical and biotechnology companies. Revenues recognized under these agreements are disclosed in Note 2.

These agreements generally may be terminated due to material and uncured breaches, insolvency of either party, mutual written consent, unilateral decision of one or either party upon prior written notice, expiration of payment obligations, cessation of development or commercialization of the products, and/or challenges to patents which are subject to the related agreement. Each agreement is discussed in more detail in the following sections.

Takeda ADCETRIS collaboration

The Takeda ADCETRIS collaboration provides for the global co-development of ADCETRIS and the commercialization of ADCETRIS by Takeda in its territory. We have commercial rights for ADCETRIS in the U.S. and its territories and in Canada. Takeda has commercial rights in the rest of the world. Under the collaboration, we and Takeda can each conduct development activities and equally co-fund the cost of certain mutually agreed development activities. Costs associated with co-development activities are included in research and development expense.

We recognize payments received from Takeda, including progress-dependent development and regulatory milestone payments, reimbursement for drug supplied, and net development cost reimbursement payments, as collaboration and license agreement revenues upon transfer of control of the goods or services over the development period. When the performance of development activities under the collaboration results in us making a reimbursement payment to Takeda, that payment reduces collaboration and license agreement revenues. In addition, we recognize royalty revenues, where royalties are based on a percentage of Takeda's net sales of ADCETRIS in its licensed territories, with percentages ranging from the mid-teens to the mid-twenties based on annual net sales tiers, and sales-based milestones. Takeda bears a portion of third-party royalty costs owed on its sales of ADCETRIS, which is included in royalty revenues.

Astellas PADCEV collaboration

We have a collaboration agreement with Agensys, Inc., which subsequently became an affiliate of Astellas, to jointly research, develop and commercialize ADCs for the treatment of several types of cancer. The collaboration encompasses combinations of our ADC technology with fully-human antibodies developed by Astellas to proprietary cancer targets. Under this collaboration, we and Astellas are co-funding all development costs for PADCEV. We rely on Astellas to supply PADCEV for commercial sales and for our clinical trials, and Astellas oversees the manufacturing supply chain for PADCEV. Costs associated with co-development activities are included in research and development expense and amounted to $99.3 million, $76.8 million, and $54.9 million for the years ended December 31, 2020, 2019, and 2018, respectively.

In 2018, we and Astellas entered into a joint commercialization agreement to govern the global commercialization of PADCEV:

- In the U.S., we and Astellas jointly promote PADCEV. We record sales of PADCEV in the U.S. and are responsible for all U.S. distribution activities. The companies each bear the costs of their own sales organizations in the U.S., equally share certain costs associated with commercializing PADCEV in the U.S., and equally share in any profits realized in the U.S. We and Astellas launched PADCEV in the U.S. in December 2019. Gross profit share payments owed to Astellas in the U.S. are recorded in cost of sales and totaled $104.6 million during the year ended December 31, 2020.
- Outside the U.S., we have commercialization rights in all countries in North and South America, and Astellas has commercialization rights in the rest of the world, including Europe, Asia, Australia and Africa. The agreement is intended to provide that we and Astellas will effectively equally share in costs incurred and any profits realized in all of these markets. Cost and profit sharing in Canada, the United Kingdom, Germany, France, Spain and Italy will be based on product sales and costs of commercialization. In the remaining markets, the commercializing party will bear costs and will pay the other party a royalty rate applied to net sales of the product based on a rate intended to approximate an equal profit share for both parties.

Either party may opt out of co-development and profit-sharing under the collaboration agreement in return for receiving milestones and royalties from the continuing party. Astellas or its affiliates are responsible for manufacturing PADCEV for development and commercial use. However, we are responsible for packaging and labeling in countries in which we sell PADCEV. In addition, if the parties determine that a second source is required, we will be responsible for establishing such second source whether internally or through a third party.

Genmab tisotumab vedotin collaboration

We have an agreement with Genmab to develop and commercialize ADCs for the treatment of several types of cancer, under which we previously exercised a co-development option for tisotumab vedotin. In October 2020, we and Genmab entered into a joint commercialization agreement to govern the global commercialization of tisotumab vedotin, if we are successful in obtaining any regulatory approvals of tisotumab vedotin:

- In the U.S., we and Genmab will co-promote tisotumab vedotin. We will record sales of tisotumab vedotin in the U.S. and are responsible for leading U.S. distribution activities. The companies will each hire and maintain 50% of the sales representatives and medical science liaisons, equally share those and certain other costs associated with commercializing tisotumab vedotin in the U.S., and equally share in any profits realized in the U.S.
- Outside the U.S., we have commercialization rights in the rest of the world except for Japan, where Genmab has commercialization rights. In Europe, China, and Japan, we and Genmab equally share 50% of the costs associated with commercializing tisotumab vedotin as well as any profits realized in these markets. In markets outside the U.S. other than Europe, China, and Japan, aside from certain costs specified in the agreement, we are solely responsible for all costs associated with commercializing tisotumab vedotin and will pay Genmab a royalty based on a percentage of aggregate net sales ranging from the mid-teens to mid-twenties.

In February 2021, a BLA for tisotumab vedotin was submitted to the FDA seeking accelerated approval for the treatment of patients with recurrent or metastatic cervical cancer with disease progression on or after chemotherapy. Costs associated with co-development activities are included in research and development expense and amounted $50.1 million, $48.5 million, and $33.8 million for the years ended December 31, 2020, 2019, and 2018, respectively. Either party may opt out of co-development and profit-sharing under the collaboration agreement in return for receiving milestones and royalties from the continuing party. Either party may also opt out of co-development and profit-sharing under the collaboration agreement in return for receiving milestones and royalties from the continuing party. The opt out provisions of the collaboration agreement may also be applied to the joint commercialization agreement. In addition, Genmab may elect to opt out of co-promotion of tisotumab vedotin in the United States by providing us with prior written notice.

Merck LV and TUKYSA license and collaboration agreements, and stock purchase agreement

In September 2020, we entered into two license and collaboration agreements, and a stock purchase agreement, with subsidiaries of Merck.

Under one of the license and collaboration agreements, referred to as the LV Agreement, we are pursuing a broad joint development program evaluating ladiratuzumab vedotin, or LV, as monotherapy and in combination settings, including with Merck's anti-PD-1 therapy KEYTRUDA® (pembrolizumab) in triple-negative breast cancer, hormone receptor-positive breast cancer and other LIV-1-expressing solid tumors. Pursuant to the LV Agreement, we granted to Merck a co-exclusive worldwide development and commercialization license for LV, and agreed to jointly develop and commercialize LV on a worldwide basis. We received an upfront cash payment of $600.0 million, and we are eligible to receive up to $850.0 million in milestone payments upon the initiation of certain clinical trials and regulatory approval in certain major markets, and up to an additional $1.75 billion in milestone payments upon the achievement of specified annual global net sales thresholds of LV. Each company is responsible for 50% of global costs to develop and commercialize LV and will receive 50% of potential future profits.

In connection with the LV Agreement, we entered into a stock purchase agreement with Merck, referred to as the Purchase Agreement, pursuant to which Merck purchased 5,000,000 newly-issued shares of our common stock, at a purchase price of $200 per share, for an aggregate purchase price of $1.0 billion. The fair market value of 5,000,000 shares of our common stock was $749.9 million, based on the closing price of the last trading day prior to the Purchase Agreement being executed. We recorded the fair market value of the shares issued in stockholders' equity on our consolidated balance sheet upon closing of the sale of shares pursuant to the Purchase Agreement in October 2020. We accounted for the associated premium of $250.1 million as a freestanding equity-linked instrument under ASC 815, and determined it to be variable consideration attributable to the total transaction price related to the LV license. Accordingly, we recognized the premium in collaboration and license agreement revenues for the year ended December 31, 2020, upon closing of the sale of shares pursuant to the Purchase Agreement.

Under the other license and collaboration agreement, referred to as the TUKYSA Agreement, we granted Merck exclusive rights to commercialize TUKYSA in Asia, the Middle East and Latin America and other regions outside of the U.S., Canada and Europe. Pursuant to the TUKYSA Agreement, Merck is responsible for marketing applications for approval in its territory, supported by the positive results from the HER2CLIMB clinical trial. We retained commercial rights in the U.S., Canada and Europe, where we will record sales. Merck is also co-funding a portion of the TUKYSA global development plan, which encompasses several ongoing and planned trials across HER2-positive cancers. We will continue to lead ongoing TUKYSA global development operational execution. Merck will solely fund and conduct country-specific clinical trials necessary to support anticipated regulatory applications in its territories. We received an upfront cash payment from Merck of $125.0 million and also received $85.0 million in prepaid research and development funding to be applied to Merck's global development cost sharing obligations. We are eligible to receive progress-dependent milestone payments of up to $65.0 million, and are entitled to receive tiered royalties on sales of TUKYSA by Merck that begin in the low twenty percent range and escalate based sales volume by Merck in its territory. We owe a portion of any non-royalty payments received from sublicensing TUKSYA rights to a technology licensor, as well as a low double-digit royalty based on net sales of TUKYSA by us, and will owe a single-digit royalty based on net sales of TUKYSA by Merck in its territories.

We determined that these agreements are within the scope of ASC 808. Pursuant to ASC 808, we considered other authoritative guidance for distinct units of account related to these agreements, including ASC 606. Our performance obligations within the scope of ASC 606 consisted of the delivery of the LV license and transfer of regulatory information to enable the LV collaboration, the delivery of the TUKYSA license and transfer of regulatory materials for use by Merck in its territory, and supply of commercial TUKYSA inventory to Merck for use in its territory. The LV license and TUKYSA license are functional intellectual property and distinct from the other promises made under the contract. Since we also determined that Merck can benefit from the LV license and the TUKYSA licenses at the time of conveyance, the related performance obligations were satisfied at that point in time. Therefore, we recognized license revenue related to the upfront payments under ASC 606 in collaboration and license agreement revenues during the year ended December 31, 2020.

Potential development, regulatory, and sales-based milestones, and royalties, will be accounted for as variable transaction price related to the LV or TUKYSA licenses under ASC 606. Given the uncertain nature of these payments, we determined they were fully constrained as of December 31, 2020 and not included in the transaction price. We will re-evaluate the transaction price at each reporting period as uncertain events are resolved or other changes in circumstances occur.

We and Merck share equally in LV global development costs, and Merck is co-funding a portion of the TUKYSA global development plan. We consider the collaborative activities associated with the global development and commercialization of LV, and the global development of TUKYSA, to be units of account within the scope of ASC 808. We recognize development cost sharing proportionately with the performance of the underlying activities, and record Merck’s reimbursement of our expenses as a reduction of research and development expenses. Reimbursements from Merck for the LV Agreement and TUKYSA Agreement were not material during the year ended December 31, 2020. Merck’s remaining prepayment of $80.9 million towards the TUKYSA global development plan was recorded as a co-development liability in accrued liabilities and other or other long-term liabilities on our consolidated balance sheet as of December 31, 2020. As joint development expenses are incurred, we recognize the portion of Merck’s prepayment as a reduction of our research and development expenses on our consolidated statements of comprehensive income (loss). Sales of TUKYSA drug product supplied to Merck will be included in collaboration and license agreement revenues.

Other collaboration and license agreements

We have other collaboration and license agreements for our technology with a number of biotechnology and pharmaceutical companies. Under these agreements, we have granted research and commercial licenses to use our technology, most often in conjunction with the licensee's technology. In certain agreements, we also have agreed to conduct limited development activities and to provide other materials, supplies and services to our licensees during a specified term of the agreement. We typically receive upfront cash payments and progress- and sales-dependent milestones for the achievement by our licensees of certain events, and annual maintenance fees and support fees for research and development services and materials provided under the agreements. These amounts are recognized as revenue over the performance obligation period if the license is determined to not be distinct from other goods and services provided, or, if there is no performance obligation, upon transfer of control of the goods or services to the customer. We also are entitled to receive royalties on net sales of any resulting products incorporating our ADC technology. Our licensees are solely responsible for research, product development, manufacturing and commercialization of any product candidates under these agreements, which includes the achievement of the potential milestones. For agreements beyond the initial performance period, we have no remaining performance obligations. We may receive license maintenance fees and potential milestones and royalties based on collaborator development and regulatory progress, which are recorded in the period achieved in the case of milestones, and during the period of the related sales for royalties.

12. In-license agreements

We have in-licensed antibodies, targets and enabling technologies from pharmaceutical and biotechnology companies and academic institutions for use in ADCETRIS, its pipeline programs and ADC technology. Under the terms of two exclusive license agreements, we are required to pay royalties in the low single digits on net sales of ADCETRIS. In addition, we owed royalties in the low single digits on net sales of ADCETRIS under the terms of other non-exclusive licenses, which expired in 2018.

We are a party to a license agreement in which we were granted an exclusive license to develop, manufacture and commercialize TUKYSA. We pay the licensor a portion of any non-royalty payments received from sublicensing TUKSYA rights, a low double-digit royalty based on net sales of TUKSYA by us, and a single-digit royalty based on net sales of TUKYSA by our sublicensees. The term of the license agreement expires on a country-by-country basis upon the later of the expiration of the last valid claim covering TUKYSA within that country or 10 years after the first commercial sale of TUKYSA within that country.

Under the terms of in-license agreements related to our pipeline programs, we would potentially owe development, regulatory, and sales-based milestones, and royalties on net sales, as defined, of certain approved products.

13. Commitments and contingencies

We have certain non-cancelable obligations under various agreements, including supply agreements relating to the manufacture of ADCETRIS, PADCEV, TUKYSA, and our product candidates that contain annual minimum purchase commitments and other firm commitments when a binding forecast is provided. As of December 31, 2020, our future obligations related to supply and other agreements were as follows:

(dollars in thousands)	
Years ending December 31,	
2021	$ 141,130
2022	84,384
2023	61,680
2024	44,988
2025	33,816
Thereafter	128
Total	$ 366,126

Non-cancelable obligations under these agreements do not include payments that are contingent upon achievement of certain progress-dependent milestones or royalties based on net sales of commercial products. These amounts have been excluded from the table because the events triggering the obligations have not yet occurred.

See Note 3 for our future obligations related to operating leases as of December 31, 2020.

14. Legal matters

We are engaged in multiple legal disputes with Daiichi Sankyo Co. Ltd., or Daiichi Sankyo.

Dispute over ownership of intellectual property

We are in a dispute with Daiichi Sankyo regarding the ownership of certain technology used by Daiichi Sankyo in its cancer drug ENHERTU and certain product candidates. We believe that the linker and other ADC technology used in ENHERTU and these drug candidates are improvements to our ADC technology, the ownership of which we contend was assigned to us under the terms of a 2008 collaboration agreement between us and Daiichi Sankyo. On November 12, 2019, we submitted an arbitration demand to the American Arbitration Association seeking, among other remedies, a declaration that we are the owner of the intellectual property rights under dispute, monetary damages, and a running royalty. On April 27, 2020, the arbitrator confirmed the dispute should be resolved in arbitration. The arbitration is progressing with a hearing date scheduled starting June 14, 2021.

On November 4, 2019, Daiichi Sankyo filed a declaratory judgment action in the United States District Court for the District of Delaware, alleging that we are not entitled to the intellectual property rights under dispute, in an attempt to have the dispute adjudicated in federal court. On March 25, 2020, a District of Delaware magistrate judge issued a stay of Daiichi Sankyo's court action pending determination by the arbitrator of whether the suit should be heard in court or arbitration. On April 8, 2020, Daiichi Sankyo filed objections to the magistrate judge's order. On October 27, 2020, the presiding District Court Judge overruled Daiichi Sankyo's objections and affirmed the magistrate judge's stay, and subsequently ordered the case to be administratively closed on November 13, 2020.

Patent infringement

On October 19, 2020, we filed a complaint in the United States District Court for the Eastern District of Texas to commence an action for infringement of our U.S. Patent No. 10,808,039, or the '039 Patent, by Daiichi Sankyo's importation into, offer for sale, sale, and use in the United States of the cancer drug ENHERTU. This action is seeking, among other remedies, a judgment that Daiichi Sankyo infringed one or more valid and enforceable claims of the '039 Patent, monetary damages and a running royalty. Daiichi Sankyo (as well as Daiichi Sankyo, Inc. and AstraZeneca Pharmaceuticals, LP, or AstraZeneca) subsequently filed an action on November 13, 2020 in the U.S. District Court for the District of Delaware seeking a declaratory judgment that ENHERTU does not infringe the '039 Patent. Daiichi Sankyo, Inc. and AstraZeneca also filed two Petitions for Post-Grant Review on December 23, 2020 and January 22, 2021 with the U.S. Patent Office seeking to have claims of the '039 Patent cancelled as unpatentable.

As a result of these disputes, we have incurred and will continue to incur litigation expenses. In addition, from time to time, we may become involved in other lawsuits, claims and proceedings relating to the conduct of our business, including those pertaining to the defense and enforcement of our patent or other intellectual property rights and our contractual rights. These proceedings are costly and time consuming, and they may subject us to claims which may result in liabilities or require us to take or refrain from certain actions. Additionally, successful challenges to our patent or other intellectual property rights through these proceedings could result in a loss of rights in the relevant jurisdiction and may allow third parties to use our proprietary technologies without a license from us or our collaborators.

15. Stockholders' equity

In October 2020, we closed the sale of the shares pursuant to the Purchase Agreement, and issued 5,000,000 shares of our common stock to Merck at a purchase price of $200 per share, for proceeds of $1.0 billion. As a result, we recorded $749.9 million in stockholders' equity on our consolidated balance sheet and recognized the $250.1 million premium attributed to the Purchase Agreement in collaboration and license agreement revenues for the year ended December 31, 2020.

In July 2019, we completed an underwritten public offering of 8,214,286 shares of our common stock at a public offering price of $70.00 per share. The offering resulted in net proceeds to us of $548.7 million, after deducting underwriting discounts, commissions, and other offering expenses. The primary use of the net proceeds was to fund our ADCETRIS and PADCEV commercialization efforts and our research and development efforts, as well as general corporate purposes, including working capital.

In February 2018, we completed an underwritten public offering of 13,269,230 shares of our common stock at a public offering price of $52.00 per share. The offering resulted in net proceeds to us of $658.2 million, after deducting underwriting discounts, commissions, and other offering expenses. The primary use of the net proceeds was to fund the acquisition of Cascadian.

At December 31, 2020, shares of common stock reserved for future issuance are as follows:

(in thousands)	
Stock options and RSUs outstanding	10,917
Shares available for future grant under the 2007 Equity Incentive Plan	8,624
Employee stock purchase plan shares available for future issuance	986
Total	20,527

16. Net income (loss) per share

Basic net income (loss) per share is computed by dividing net income (loss) by the weighted average number of common shares outstanding during the period. Diluted net income (loss) per share is computed by dividing net income (loss) by the weighted average number of common shares and potentially dilutive common shares outstanding during the period. Potentially dilutive common shares include incremental common shares resulting the assumed vesting of restricted stock units and the assumed exercise of outstanding stock options, calculated using the treasury stock method.

The following table shows the calculation of basic and diluted net income (loss) per share:

	Years ended December 31,		
(dollars in thousands, except per share amounts)	2020	2019	2018
Net income (loss)	$ 613,670	$ (158,650)	$ (222,693)
Weighted average common shares outstanding - basic	174,834	165,498	157,655
Effect of potentially dilutive common shares	7,453	—	—
Weighted average common shares outstanding - diluted	182,287	165,498	157,655
Net income (loss) per share - basic	$ 3.51	$ (0.96)	$ (1.41)
Net income (loss) per share - diluted	$ 3.37	$ (0.96)	$ (1.41)

We excluded the potential shares of common stock from the computation of diluted net income (loss) per share because their effect would have been antidilutive. The following table presents the weighted average number of shares that have been excluded for all periods presented:

	Years ended December 31,		
(in thousands)	2020	2019	2018
Stock options and RSUs	356	12,774	13,439

17. Share-based compensation

2007 Equity Incentive Plan

Our 2007 Equity Incentive Plan, or the 2007 Plan, provides for the issuance of our common stock to employees, including our officers, directors and consultants and affiliates. The 2007 Plan was amended and restated in 2020 to reserve an additional 6,000,000 shares thereunder, such that an aggregate of 39,000,000 shares of our common stock were authorized for issuance as of December 31, 2020, and to extend the term of the 2007 Plan through May 2030 unless it is terminated earlier pursuant to its terms. Under the 2007 Plan, we may issue stock options (including incentive stock options and nonstatutory stock options), restricted stock, RSUs, stock appreciation rights and other similar types of awards. We have only issued options to purchase shares of common stock and RSUs under the 2007 Plan, including options and RSUs with time-based or performance-based vesting requirements. Performance-based vesting occurs upon achievement of pre-determined regulatory milestones, sales-based milestones, or market-based performance metrics.

Incentive stock options under the 2007 Plan may be granted only to our employees. The exercise price of an incentive stock option or a nonstatutory stock option may not be less than 100% of the fair market value of the common stock on the date the option is granted and the options generally have a maximum term of ten years from the date of grant. Generally, options granted to employees under the 2007 Plan vest 25% one year after the grant date and thereafter ratably each month over the following thirty-six months. Generally, RSUs granted to employees vest 25% each year beginning one year after the grant date. Option and RSU grants to non-employee members of our board of directors vest over one year. The vesting of performance-based awards generally includes vesting upon achievement of pre-determined milestones or metrics and, in some cases, vesting upon achievement of pre-determined milestones or metrics in addition to the passage of time.

The 2007 Plan provides for (i) the full acceleration of vesting of equity awards upon a change in control if the successor company does not assume, substitute or otherwise replace the equity awards upon the change in control; and (ii) the full acceleration of vesting of any equity awards if at the time of, immediately prior to or within twelve months after a change in control of the Company, the holder of such equity awards is involuntarily terminated without cause or is constructively terminated by the successor company that assumed, substituted or otherwise replaced such stock awards in connection with the change in control.

Share-based compensation expense

We recorded total share-based compensation expense of $147.2 million, $127.3 million, and $78.9 million for 2020, 2019, and 2018, respectively, including share-based compensation expense associated with our LTIPs. Share-based compensation included in research and development expenses was $72.7 million, $64.7 million, and $40.4 million for 2020, 2019, and 2018, respectively, and share-based compensation included in sales, general, and administrative expenses was $74.5 million, $62.6 million, and $38.5 million for 2020, 2019, and 2018, respectively. We recognized a tax benefit of $55.7 million related to share-based compensation expense for 2020. No tax benefit was recognized for 2019 and 2018 since there is no taxable income for those years and a valuation allowance is available to offset all potential tax benefits associated with its deferred tax assets.

Valuation assumptions

We calculate the fair value of each option award on the date of grant using the Black-Scholes option pricing model. The following weighted-average assumptions were used for the periods indicated:

	2007 Plan			Employee Stock Purchase Plan		
	Years ended December 31,			Years ended December 31,		
	2020	2019	2018	2020	2019	2018
Risk-free interest rate	0.3 %	1.5 %	2.8 %	1.3 %	2.2 %	1.7 %
Expected lives (in years)	5.7	5.6	5.6	0.5	0.5	0.5
Expected dividend	0 %	0 %	0 %	0 %	0 %	0 %
Expected volatility	44 %	44 %	42 %	47 %	43 %	36 %

The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant for the expected life of the award. Our computation of expected life was determined based on our historical experience with similar awards, giving consideration to the contractual terms of the share-based awards, vesting schedules and expectations of future employee behavior. A forfeiture rate is estimated at the time of grant to reflect the amount of awards that are granted but are expected to be forfeited by the award holder prior to vesting. The estimated forfeiture rate applied to these amounts is derived from historical stock award forfeiture behavior. We have never paid cash dividends and do not currently intend to pay cash dividends. Our computation of expected volatility is based on the historical volatility of our stock price.

The fair value of RSUs is determined based on the closing price of our common stock on the date of grant.

Stock option activity

A summary of stock option activity is as follows:

	Shares	Weighted-average exercise price per share	Weighted-average remaining contractual term (in years)	Aggregate intrinsic value (in thousands)
Balance at December 31, 2019	9,560,510	$ 47.62		
Granted	871,939	$ 159.69		
Exercised	(2,258,503)	$ 35.77		
Forfeited/expired	(292,693)	$ 69.50		
Balance at December 31, 2020	7,881,253	$ 62.60	6.05	$ 887,226
Expected to vest	7,668,287	$ 61.31	5.98	$ 873,149
Options exercisable	5,236,758	$ 46.10	4.98	$ 675,746

The weighted average grant-date fair values of options granted with exercise prices equal to market were $64.66, $30.51, and $30.77 for the years ended December 31, 2020, 2019, and 2018, respectively.

The aggregate intrinsic value in the table above is calculated as the difference between the exercise price of the underlying options and the quoted price of our common stock for all options that were in-the-money at December 31, 2020. The aggregate intrinsic value of options exercised was $271.0 million during 2020, $128.4 million during 2019, and $73.3 million during 2018, determined as of the date of option exercise. As of December 31, 2020, there was approximately $52.4 million of total unrecognized compensation cost related to unvested options, as adjusted for expected forfeitures. That cost is expected to be recognized over a weighted-average period of 1.22 years. We utilize newly issued shares to satisfy option exercises.

RSU activity

A summary of RSU activity, excluding performance-based RSUs, is as follows:

	Share equivalent	Weighted-average grant date fair value
Non-vested at December 31, 2019	2,991,562	$ 68.66
Granted	816,486	$ 159.51
Vested	(1,201,084)	$ 60.90
Forfeited	(249,458)	$ 78.08
Non-vested at December 31, 2020	2,357,506	$ 105.50

The weighted average grant-date fair values of RSUs granted were $159.51, $75.58, and $70.78 for the years ended December 31, 2020, 2019, and 2018, respectively. The total fair value of RSUs that vested during 2020, 2019, and 2018 (measured on the date of vesting) was $187.1 million, $67.1 million, and $42.4 million, respectively. As of December 31, 2020, there was approximately $144.7 million of total unrecognized compensation cost related to non-vested RSU awards, as adjusted for expected forfeitures. That cost is expected to be recognized over a weighted-average period of 1.60 years. We utilize newly issued shares for RSUs that vest.

LTIP and performance-based awards activity

We have various LTIPs, which contain performance-based equity compensation, and have granted other performance-based awards to certain executive officers.

During 2020, an LTIP milestone was achieved related to FDA approval of TUKYSA based on our HER2CLIMB trial, which triggered vesting of performance-based stock awards previously granted to eligible participants, and an RSU grant to eligible participants. The vesting of the previously granted performance-based stock awards related to this LTIP is included in the table below. The second tranche grant upon milestone achievement and time-based vesting of these awards is included in the "*RSU activity*" table above.

During 2019, an LTIP milestone was achieved related to the FDA approval of PADCEV based on our EV-201 trial, which triggered a cash payment to eligible participants and an RSU grant to certain eligible participants. The vesting of grants made under that LTIP is time-based and is included in the *"RSU activity"* table above.

During 2018, an LTIP milestone was achieved related to the FDA approval of an ADCETRIS indication, which triggered a cash payment to eligible participants and commenced vesting of stock options related to that LTIP. The vesting for that LTIP is time-based and is included in the *"Stock option activity"* table above.

A summary of activity related to our performance-based RSUs and LTIPs is as follows:

	Share equivalent	Weighted-average grant date fair value
Non-vested at December 31, 2019	616,643	$ 95.05
Granted	365,070	$ 151.93
Vested	(240,667)	$ 58.14
Forfeited	(62,469)	$ 96.89
Non-vested at December 31, 2020	678,577	$ 132.80

As of December 31, 2020, the estimated unrecognized compensation cost related to all LTIPs and performance-based awards was approximately $74 million.

Employee Stock Purchase Plan

Under the current terms of the Amended and Restated 2000 Employee Stock Purchase Plan, or the Employee Stock Purchase Plan, employees can purchase shares of our common stock based on a percentage of their compensation subject to certain limits. Shares are purchased at the lower of 85 percent of the fair market value of our common stock on either the first day or the last day of each six-month offering period. Share issuance activity under the Employee Stock Purchase Plan is disclosed in our consolidated statements of stockholders' equity. In May 2019, our stockholders approved an increase of 1,000,000 shares in the number of shares of common stock authorized for issuance under the Employee Stock Purchase Plan.

18. Employee benefit plan

We have a 401(k) Plan for all of our U.S. employees. Eligible employees may contribute through payroll deductions, and we may match the employees' 401(k) contributions, at our discretion and not to exceed a prescribed annual limit. Under this matching program, we contributed $18.0 million in 2020, $11.9 million in 2019, and $7.7 million in 2018.

19. Quarterly financial data (unaudited)

The unaudited quarterly financial information should be read in conjunction with our financial statements and related notes included elsewhere in this report. We believe that the following unaudited information reflects all normal recurring adjustments necessary for a fair presentation of the information for the periods presented. The operating results for any quarter are not necessarily indicative of results for any future period. The following table contains selected unaudited financial data for each of the indicated periods:

	Three months ended			
(dollars in thousands, except per share data)	March 31,	June 30,	September 30,	December 31,
	2020			
Total revenues	$ 234,514	$ 277,998	$ 1,061,731	$ 601,293
Net income (loss)	$ (168,402)	$ (21,190)	$ 636,167	$ 167,095
Net income (loss) per share - basic	$ (0.98)	$ (0.12)	$ 3.65	$ 0.93
Net income (loss) per share - diluted	$ (0.98)	$ (0.12)	$ 3.50	$ 0.90
	2019			
Total revenues	$ 195,199	$ 218,447	$ 213,263	$ 289,804
Net income (loss)	$ (13,329)	$ (79,238)	$ (91,913)	$ 25,830
Net income (loss) per share - basic	$ (0.08)	$ (0.49)	$ (0.55)	$ 0.15
Net income (loss) per share - diluted	$ (0.08)	$ (0.49)	$ (0.55)	$ 0.14

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

a. *Evaluation of disclosure controls and procedures.* Our Chief Executive Officer and our Chief Financial Officer have evaluated our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended) prior to the filing of this annual report. Based on that evaluation, they have concluded that, as of the end of the period covered by this annual report, our disclosure controls and procedures were, in design and operation, effective at the reasonable assurance level.

   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.

b. *Changes in internal control over financial reporting.* There have not been any changes in our internal control over financial reporting during the quarter ended December 31, 2020 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

c. *Management's Annual Report on Internal Control over Financial Reporting.* Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) under the Securities Exchange Act of 1934, as amended. Our management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the 2013 framework in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on its evaluation under the framework in *Internal Control—Integrated Framework,* our management concluded that our internal control over financial reporting was effective as of December 31, 2020.

The effectiveness of our internal control over financial reporting as of December 31, 2020 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which is included in Item 8 in this Annual Report on Form 10-K.

Item 9B. Other Information

Amendment to Senior Executive Annual Bonus Plan

To reflect market practice among peer companies and further align pay with performance, the Compensation Committee of our Board of Directors, or the Compensation Committee, amended our Senior Executive Annual Bonus Plan, or the Plan, on February 9, 2021 to (a) provide for the use of guidelines established by the Compensation Committee to partially determine a participant's individual performance percentage for any Plan year and (b) change the relative weight of the corporate and individual performance factors for our executive officers other that the CEO from 60% corporate performance and 40% individual performance to 50% corporate performance and 50% individual performance. All other material terms of the Plan remain unchanged. Under the Plan, which is administered by the Compensation Committee, executives at the Vice President level or higher are eligible to receive an annual performance-based cash bonus for each calendar year based on the achievement of specified Company goals and, as applicable, an assessment of individual performance. The above description of the amendments to the Plan is only a brief summary of such amendments, does not purport to be complete, and is qualified in its entirety by reference to the Plan, as amended, which is filed as Exhibit 10.66 to this Annual Report on Form 10-K.

PART III

The information required by Part III is omitted from this report because we will file a definitive proxy statement within 120 days after the end of our 2020 fiscal year pursuant to Regulation 14A for our 2021 Annual Meeting of Stockholders, or the 2021 Proxy Statement, and the information to be included in the 2021 Proxy Statement is incorporated herein by reference.

Item 10. Directors, Executive Officers and Corporate Governance

1. The information required by this Item concerning our executive officers and our directors and nominees for director, including information with respect to our audit committee and audit committee financial expert, may be found under the section entitled "Proposal No. 1—Election of Directors" appearing in the 2021 Proxy Statement. Such information is incorporated herein by reference.
2. The information required by this Item concerning our code of ethics may be found under the section entitled "Proposal No. 1—Election of Directors—Corporate Governance—Code of Conduct and Business Ethics" appearing in the 2021 Proxy Statement. Such information is incorporated herein by reference.
3. The information required by this Item concerning compliance with Section 16(a) of the Securities Exchange Act of 1934 may be found in the section entitled "Delinquent Section 16(a) Reports" appearing in the 2021 Proxy Statement. Such information is incorporated herein by reference.

Item 11. Executive Compensation

The information required by this Item may be found under the sections entitled "Proposal No. 1—Election of Directors—Director Compensation" and "Compensation of Executive Officers" appearing in the 2021 Proxy Statement. Such information is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

1. The information required by this Item with respect to security ownership of certain beneficial owners and management may be found under the section entitled "Security Ownership of Certain Beneficial Owners and Management" appearing in the 2021 Proxy Statement. Such information is incorporated herein by reference.
2. The information required by this Item with respect to securities authorized for issuance under our equity compensation plans may be found under the sections entitled "Equity Compensation Plan Information" appearing in the 2021 Proxy Statement. Such information is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence

1. The information required by this Item concerning related party transactions may be found under the section entitled "Certain Relationships and Related Party Transactions" appearing in the 2021 Proxy Statement. Such information is incorporated herein by reference.
2. The information required by this Item concerning director independence may be found under the section entitled "Proposal No. 1—Election of Directors—Corporate Governance—Director Independence" appearing in the 2021 Proxy Statement. Such information is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services

The information required by this Item may be found under the section entitled "Proposal No. 3—Ratification of Appointment of Independent Registered Public Accounting Firm" appearing in the 2021 Proxy Statement. Such information is incorporated herein by reference.

PART IV

Item 15. Exhibits, Financial Statement Schedules

1. The following documents are filed as part of this report:

   a. Financial Statements and Report of Independent Registered Public Accounting Firm

   b. Financial Statement Schedules have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

   c. Exhibits are incorporated herein by reference or are filed with this report as indicated below (numbered in accordance with Item 601 of Regulation S-K).

2. Exhibits

Exhibit Number	Exhibit Description	Incorporation By Reference			
		Form	SEC File No.	Exhibit	Filing Date
2.1**	Agreement and Plan of Merger, dated January 30, 2018, among Seagen Inc. (f.k.a. Seattle Genetics, Inc.), Valley Acquisition Sub, Inc. and Cascadian Therapeutics, Inc.	8-K	000-32405	2.1	1/31/2018
3.1	Fourth Amended and Restated Certificate of Incorporation of Seagen Inc. (f.k.a. Seattle Genetics, Inc.).	10-Q	000-32405	3.1	11/7/2008
3.2	Certificate of Amendment of Fourth Amended and Restated Certificate of Incorporation of Seagen Inc. (f.k.a. Seattle Genetics, Inc.).	8-K	000-32405	3.3	5/26/2011
3.3	Certificate of Amendment of Fourth Amended and Restated Certificate of Incorporation of Seagen Inc. (f.k.a Seattle Genetics, Inc.).	8-K	000-32405	3.1	10/8/2020
3.4	Amended and Restated Bylaws of Seagen Inc. (f.k.a. Seattle Genetics, Inc.).	8-K	000-32405	3.1	1/16/2020
4.1	Description of Securities of Seagen Inc.	10-K	000-32405	4.1	2/6/2020
4.2+	Specimen Stock Certificate.	—	—	—	—
4.3	Investor Rights Agreement dated July 8, 2003 among Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and certain of its stockholders.	10-Q	000-32405	4.3	11/7/2008
4.4	Registration Rights Agreement, dated September 10, 2015, by and between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and the persons listed on Schedule A attached thereto.	8-K	000-32405	10.1	9/11/2015
10.1†	Collaboration Agreement between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Millennium Pharmaceuticals, Inc. (a wholly-owned subsidiary of Takeda Pharmaceutical Company Limited) dated December 14, 2009.	10-K	000-32405	10.1	2/6/2020
10.2†	Collaboration and License Agreement dated January 7, 2007 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Agensys, Inc.	10-Q	000-32405	10.1	5/8/2007
10.3†	Amendment to the Collaboration and License Agreement between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Agensys, Inc. dated effective November 20, 2009.	10-K	000-32405	10.49	3/12/2010
10.4†	Joint Commercialization Agreement dated October 20, 2018 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Agensys, Inc.	10-Q	000-32405	10.1	7/16/2019
10.5†	License and Collaboration Agreement, effective October 7, 2011, between Genmab A/S and Seagen Inc. (f.k.a. Seattle Genetics, Inc.).	10-Q/A	000-32405	10.3	4/13/2018
10.6+††	Joint Commercialization Agreement dated October 19, 2020 between Genmab A/S and Seagen Inc. (f.k.a. Seattle Genetics Inc.).	—	—	—	—

Exhibit Number	Exhibit Description	Incorporation By Reference			
		Form	SEC File No.	Exhibit	Filing Date
10.7	License Agreement dated March 30, 1998 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Bristol-Myers Squibb Company.	10-K/A	000-32405	10.1	11/26/2010
10.8	Amendment Letter to the Bristol-Myers Squibb Company License Agreement dated July 29, 1999 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Bristol-Myers Squibb Company.	10-K/A	000-32405	10.2	11/26/2010
10.9	Amendment Agreement to the Bristol-Myers Squibb Company License Agreement dated July 26, 2000 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Bristol-Myers Squibb Company.	S-1/A	333-50266	10.7	12/5/2000
10.10†	Amendment to License Agreement to the Bristol-Myers Squibb Company License Agreement dated December 18, 2015 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Bristol-Myers Squibb Company.	10-K	000-32405	10.4	2/19/2016
10.11	License Agreement dated September 20, 1999 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and the University of Miami.	10-K/A	000-32405	10.6	11/26/2010
10.12	Amendment No. 1 to the University of Miami License Agreement dated August 4, 2000 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and the University of Miami.	10-K/A	000-32405	10.7	11/26/2010
10.13†	Letter Agreement Regarding Royalty between the University of Miami and Seagen Inc. (f.k.a. Seattle Genetics, Inc.) dated April 11, 2016.	10-Q	000-32405	10.1	7/26/2016
10.14	License Agreement between Cascadian Therapeutics, Inc. and Array BioPharma Inc. dated December 11, 2014.	10-Q	000-32405	10.1	4/26/2018
10.15	Amendment No. 1 to License Agreement dated April 23, 2020 between Cascadian Therapeutics, Inc. and Array Biopharma Inc.	10-Q	000-32405	10.5	7/31/2020
10.16+††	Commercial Supply Agreement dated December 1, 2010 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and SAFC, an operating division of Sigma-Aldrich, Inc.	—	—	—	—
10.17+††	First Amendment to Commercial Supply Agreement effective as of January 20, 2014 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and SAFC, an operating division of Sigma-Aldrich, Inc.	—	—	—	—
10.18+††	Second Amendment to Commercial Supply Agreement effective as of December 2, 2016 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and SAFC, an operating division of Sigma-Aldrich, Inc.	—	—	—	—
10.19†	Third Amendment to Commercial Supply Agreement effective as of July 1, 2019 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and SAFC, an operating division of Sigma-Aldrich, Inc.	10-Q	000-32405	10.2	10/30/2019
10.20	Development and Supply Agreement dated February 23, 2004 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Abbott Laboratories.	10-K	000-32405	10.15	2/27/2015
10.21†	First Amendment to Development and Supply Agreement dated April 17, 2008 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Abbott Laboratories, Inc.	10-Q	000-32405	10.1	8/8/2008
10.22†	Second Amendment to Development and Supply Agreement dated June 15, 2009 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Abbott Laboratories, Inc.	10-Q	000-32405	10.4	11/4/2011

Exhibit Number	Exhibit Description	Incorporation By Reference			
		Form	SEC File No.	Exhibit	Filing Date
10.23†	Third Amendment to Development and Supply Agreement dated November 5, 2009 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Abbott Laboratories, Inc.	10-Q	000-32405	10.5	11/4/2011
10.24†	Fourth Amendment to Development and Supply Agreement dated April 18, 2010 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Abbott Laboratories, Inc.	10-Q	000-32405	10.6	11/4/2011
10.25†	Fifth Amendment to Development and Supply Agreement dated August 24, 2010 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Abbott Laboratories, Inc.	10-Q	000-32405	10.7	11/4/2011
10.26+††	Sixth Amendment to Development and Supply Agreement dated November 18, 2010 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Abbott Laboratories, Inc.	—	—	—	—
10.27†	Seventh Amendment to Development and Supply Agreement dated January 2, 2013 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Abbott Laboratories, Inc.	10-K	000-32405	10.42	2/27/2013
10.28†	Eighth Amendment to Development and Supply Agreement dated July 7, 2015 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and AbbVie Inc. (formerly part of Abbott Laboratories, Inc.).	10-Q	000-32405	10.2	7/30/2015
10.29†	Ninth Amendment to Development and Supply Agreement, effective as of August 28, 2016 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and AbbVie Inc. (formerly part of Abbott Laboratories, Inc.).	10-Q	000-32405	10.1	10/27/2016
10.30†	Tenth Amendment to Development and Supply Agreement, effective as of December 26, 2016 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and AbbVie, Inc. (formerly part of Abbott Laboratories, Inc.).	10-K	000-32405	10.29	2/21/2017
10.31††	Eleventh Amendment to Development and Supply Agreement effective July 12, 2018 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and AbbVie Inc. (formerly part of Abbott Laboratories, Inc.).	10-K	000-32405	10.29	2/6/2020
10.32†	Twelfth Amendment to Development and Supply Agreement, effective as of April 25, 2019 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and AbbVie, Inc. (formerly part of Abbott Laboratories, Inc.).	10-Q	000-32405	10.2	7/16/2019
10.33††	Commercial Supply Agreement dated June 13, 2019 between Seagen Inc. (f.k.a Seattle Genetics, Inc.) and Esteve Quimica, S.A.	10-Q	000-32405	10.1	7/31/2020
10.34††	Amendment No. 1 to Commercial Supply Agreement dated April 14, 2020 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Esteve Quimica, S.A.	10-Q	000-32405	10.2	7/31/2020
10.35††	Commercial Supply Agreement dated February 20, 2020 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Corden Plankstadt.	10-Q	000-32405	10.3	7/31/2020
10.36††	Commercial Supply Agreement dated April 2, 2020 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Sterling Pharma Solutions Limited.	10-Q	000-32405	10.4	7/31/2020
10.37††	License and Collaboration Agreement related to ladiratuzumab vedotin dated September 13, 2020 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Merck Sharp & Dohme Corp.	10-Q	000-32405	10.1	10/30/2020
10.38††	Stock Purchase Agreement dated September 13, 2020 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Merck Sharp & Dohme Corp.	10-Q	000-32405	10.2	10/30/2020
10.39	Lease Agreement dated December 1, 2000 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and WCM 132-302, LLC.	S-1/A	333-50266	10.21	1/4/2001

Exhibit Number	Exhibit Description	Incorporation By Reference			
		Form	SEC File No.	Exhibit	Filing Date
10.40	First Amendment to Lease dated May 28, 2003 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and B&N 141-302, LLC.	10-Q	333-50266	10.1	8/12/2003
10.41†	Second Amendment to Lease dated July 1, 2008 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and B&N 141-302, LLC.	10-Q	000-32405	10.1	11/7/2008
10.42†	Third Amendment to Lease dated May 9, 2011 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and B&N 141-302, LLC.	10-Q	000-32405	10.2	8/5/2011
10.43†	Fourth Amendment to Lease dated October 24, 2017 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and SNH Medical Office Properties Trust, as successor in interest to B&N 141-302, LLC.	10-K	000-32405	10.12	02/15/2018
10.44†	Office Lease dated May 9, 2011 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and WCM Highlands II, LLC.	10-Q	000-32405	10.1	8/5/2011
10.45†	First Amendment to Office Lease dated October 24, 2017 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and SNH Medical Office Properties Trust, as successor in interest to WCM Highlands II, LLC.	10-K	000-32405	10.14	2/15/2018
10.46†	Purchase Agreement, dated June 16, 2017, between BMR-3450 Monte Villa Parkway, LLC and ZymoGenetics, Inc	10-Q	000-32405	10.1	11/6/2017
10.47	Assignment and Assumption of Purchase Agreement, dated July 30, 2017, between ZymoGenetics, Inc. and Seagen Inc. (f.k.a. Seattle Genetics, Inc.).	10-Q	000-32405	10.2	11/6/2017
10.48*	Form of Indemnification Agreement between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and each of its officers and directors.	S-1/A	333-50266	10.29	1/4/2001
10.49*	Amended and Restated Employment Agreement dated October 25, 2018, between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Clay Siegall.	10-Q	000-32405	10.1	10/26/2018
10.50*	Amended and Restated Employment Agreement dated October 25, 2018, between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Todd Simpson.	10-Q	000-32405	10.2	10/26/2018
10.51*	Amended and Restated Employment Agreement dated October 25, 2018, between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Vaughn Himes.	10-Q	000-32405	10.4	10/26/2018
10.52*	Amended and Restated Employment Agreement dated October 25, 2018, between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Roger Dansey.	10-Q	000-32405	10.3	10/26/2018
10.53*	Amended and Restated Employment Agreement dated October 25, 2018, between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Jean Liu.	10-Q	000-32405	10.6	10/26/2018
10.54*	Amended and Restated Employment Agreement dated April 15, 2020 between Seagen Inc. (f.k.a. Seattle Genetics, Inc.) and Charles Romp.	10-Q	000-32405	10.7	7/31/2020
10.55*	Amended and Restated 1998 Stock Option Plan, effective as of August 5, 2009.	10-Q	000-32405	10.1	8/10/2009
10.56*	2000 Directors' Stock Option Plan, as amended February 5, 2010.	10-K	000-32405	10.13	3/12/2010
10.57*	Amended and Restated 2007 Equity Incentive Plan, effective as of May 18, 2012.	10-Q	000-32405	10.1	8/8/2012
10.58*	Amended and Restated 2007 Equity Incentive Plan, effective as of May 16, 2014.	10-Q	000-32405	10.1	8/8/2014

Exhibit Number	Exhibit Description	Incorporation By Reference			
		Form	SEC File No.	Exhibit	Filing Date
10.59*	Amended and Restated 2007 Equity Incentive Plan, effective as of May 20, 2016.	10-Q	000-32405	10.4	7/26/2016
10.60*	Amended and Restated 2007 Equity Incentive Plan, effective as of May 18, 2018.	10-Q	000-32405	10.2	7/26/2018
10.61*	Amended and Restated 2007 Equity Incentive Plan, effective as of May 15, 2020.	10-Q	000-32405	10.6	7/31/2020
10.62*	Long Term Incentive Plan for ECHELON-1, effective as of May 9, 2016.	10-Q	000-32405	10.2	7/26/2016
10.63*	Long Term Incentive Plan for EV and TV, effective as of September 29, 2017.	10-Q	000-32405	10.4	11/6/2017
10.64*	Long Term Incentive Plan for Tucatinib, effective as of October 24, 2018.	10-Q	000-32405	10.7	10/26/2018
10.65*	Senior Executive Annual Bonus Plan, as amended February 4, 2019.	10-K	000-32405	10.69	02/07/2019
10.66+*	Senior Executive Annual Bonus Plan, as amended February 9, 2021.	—	—	—	—
10.67*	Amended and Restated 2000 Employee Stock Purchase Plan, effective as of May 20, 2019.	S-8	333-232397	99.1	6/27/2019
10.68*	Rules of the Amended and Restated 2007 Equity Incentive Plan for Restricted Stock Unit Awards Granted to French Grantees effective as of March 13, 2020.	10-Q	000-32405	10.3	4/30/2020
10.69*	Form Notice of Grant and Stock Option Agreement under the Amended and Restated 1998 Stock Option Plan.	10-K	000-32405	10.11	3/15/2005
10.70*	Form Notice of Grant and Stock Option Agreement under the 2000 Directors' Stock Option Plan.	10-K	000-32405	10.12	3/15/2005
10.71*	Form Stock Option Agreement for employees under 2007 Equity Incentive Plan.	10-K	000-32405	10.44	3/13/2009
10.72*	Form of Notice of Stock Option Grant and Stock Option Agreement for non-employee directors under the Amended and Restated 2007 Equity Incentive Plan.	10-Q	000-32405	10.4	8/5/2011
10.73*	Form of Stock Unit Grant Notice and Stock Unit Agreement for employees under the Amended and Restated 2007 Equity Incentive Plan.	8-K	000-32405	10.1	8/30/2011
10.74*	Form of Stock Unit Grant Notice and Stock Unit Agreement for non-employee directors under the Amended and Restated 2007 Equity Incentive Plan.	10-K	000-32405	10.33	2/28/2014
10.75*	Form of Stock Option Agreement for Long Term Incentive Plan for ECHELON-1 under the Amended and Restated 2007 Equity Incentive Plan.	10-Q	000-32405	10.3	7/26/2016
10.76*	Form of Notice of Stock Option Grant and Stock Option Agreement for non-employee directors under the Amended and Restated 2007 Equity Incentive Plan (approved May 18, 2018).	10-Q	000-32405	10.3	7/26/2018
10.77*	Form of Stock Unit Grant Notice and Stock Unit Agreement for non-employee directors under the Amended and Restated 2007 Equity Incentive Plan (approved May 18, 2018).	10-Q	000-32405	10.4	7/26/2018
10.78*	Form of Stock Option Agreement for Non-US Participants under the Amended and Restated 2007 Equity Incentive Plan (approved May 18, 2018).	10-Q	000-32405	10.5	7/26/2018
10.79*	Form of Stock Unit Grant Notice and Stock Unit Agreement for non-US participants under the Amended and Restated 2007 Equity Incentive Plan (approved May 18, 2018).	10-Q	000-32405	10.6	7/26/2018

Exhibit Number	Exhibit Description	Incorporation By Reference			
		Form	SEC File No.	Exhibit	Filing Date
10.80*	Form of Performance-Based Stock Option Agreement for employees under the Amended and Restated 2007 Equity Incentive Plan (approved May 18, 2018).	10-Q	000-32405	10.7	7/26/2018
10.81*	Form of Time-Based Stock Option Agreement for employees under the Amended and Restated 2007 Equity Incentive Plan (approved May 18, 2018).	10-Q	000-32405	10.8	7/26/2018
10.82*	Form of Performance-Based Stock Unit Grant Notice and Stock Unit Agreement for employees under the Amended and Restated 2007 Equity Incentive Plan (approved May 18, 2018).	10-Q	000-32405	10.9	7/26/2018
10.83*	Form of Time-Based Stock Unit Grant Notice and Stock Unit Agreement for employees under the Amended and Restated 2007 Equity Incentive Plan (approved May 18, 2018).	10-Q	000-32405	10.10	7/26/2018
10.84*	Form of Stock Option Agreement for U.S. Participants under the Amended and Restated 2007 Equity Incentive Plan (approved August 30, 2018).	10-Q	000-32405	10.8	10/26/2018
10.85*	Form of Stock Option Agreement for non-US Participants under the Amended and Restated 2007 Equity Incentive Plan (approved August 30, 2018).	10-Q	000-32405	10.9	10/26/2018
10.86*	Form of Performance-Based Stock Unit Agreement for U.S. Participants under the Amended and Restated 2007 Equity Incentive Plan (approved August 30, 2018).	10-Q	000-32405	10.10	10/26/2018
10.87*	Form of Stock Unit Grant Notice and Stock Unit Agreement for US Participants under the Amended and Restated 2007 Equity Incentive Plan (approved October 24, 2018).	10-Q	000-32405	10.11	10/26/2018
10.88*	Form of Stock Unit Grant Notice and Stock Unit Agreement for non-US Participants under the Amended and Restated 2007 Equity Incentive Plan (approved October 24, 2018).	10-Q	000-32405	10.12	10/26/2018
10.89*	Form of Performance-Based Stock Unit Grant Notice and Stock Unit Agreement under the Amended and Restated 2007 Equity Incentive Plan (approved August 26, 2019).	10-Q	000-32405	10.1	10/30/2019
10.90*	Form of Stock Option Agreement for U.S. Participants under the Amended and Restated 2007 Equity Incentive Plan (approved December 19, 2019).	10-K	000-32405	10.80	2/6/2020
10.91*	Form of Stock Option Agreement for Non-US Participants under the Amended and Restated 2007 Equity Incentive Plan (approved December 19, 2019).	10-K	000-32405	10.81	2/6/2020
10.92*	Form of Time-Based Stock Unit Grant Notice and Stock Unit Agreement for employees under the Amended and Restated 2007 Equity Incentive Plan (approved December 19, 2019).	10-K	000-32405	10.82	2/6/2020
10.93*	Form of Stock Unit Grant Notice and Stock Unit Agreement for non-US Participants under the Amended and Restated 2007 Equity Incentive Plan (approved December 19, 2019).	10-K	000-32405	10.83	2/6/2020
10.94*	Form of Performance-Based Stock Unit Agreement for U.S. Participants under the Amended and Restated 2007 Equity Incentive Plan (approved December 19, 2019).	10-K	000-32405	10.84	2/6/2020
10.95*	Form of Stock Unit Grant Notice for US Participants Long Term Incentive Plan for EV and TV (approved December 19, 2019).	10-K	000-32405	10.85	2/6/2020

Exhibit Number	Exhibit Description	Incorporation By Reference			
		Form	SEC File No.	Exhibit	Filing Date
10.96*	Form of Stock Unit Grant Notice for Non-US Participants Long Term Incentive Plan for EV and TV (approved December 19, 2019).	10-K	000-32405	10.86	2/6/2020
10.97*	Form of Performance-Based Stock Unit Notice and Stock Unit Agreement for U.S. Participants under the Amended and Restated 2007 Equity Incentive Plan (approved December 24, 2019).	10-K	000-32405	10.87	2/6/2020
10.98*	Form of Performance-Based Stock Unit Notice and Stock Unit Agreement for Non-U.S. Participants under the Amended and Restated 2007 Equity Incentive Plan (approved December 24, 2019).	10-K	000-32405	10.88	2/6/2020
10.99*	Form of Stock Option Agreement for U.S. Participants under the Amended and Restated 2007 Equity Incentive Plan (approved March 13, 2020).	10-Q	000-32405	10.1	4/30/2020
10.100*	Form of Stock Option Agreement for Non-U.S. Participants under the Amended and Restated 2007 Equity Incentive Plan (approved March 13, 2020).	10-Q	000-32405	10.2	4/30/2020
10.101*	Form of Stock Unit Grant Notice and Stock Unit Agreement for French Grantees under the Amended and Restated 2007 Equity Incentive Plan (approved March 13, 2020).	10-Q	000-32405	10.4	4/30/2020
10.102*	Form of Performance-Based Stock Unit Grant Notice and Stock Unit Agreement under the Amended and Restated 2007 Equity Incentive Plan (approved August 16, 2020).	10-Q	000-32405	10.3	10/30/2020
21.1+	Subsidiaries of Seagen Inc.	—	—	—	—
23.1+	Consent of Independent Registered Public Accounting Firm	—	—	—	—
31.1+	Certification of Chief Executive Officer pursuant to Rule 13a-14(a).	—	—	—	—
31.2+	Certification of Chief Financial Officer pursuant to Rule 13a-14(a).	—	—	—	—
32.1+	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350.	—	—	—	—
32.2+	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350.	—	—	—	—
101	The following financial statements from the Company's Annual Report on Form 10-K for the year ended December 31, 2020, formatted in Inline XBRL: (i) Consolidated Balance Sheets, (ii) Consolidated Statements of Comprehensive Income (Loss), (iii) Consolidated Statements of Stockholders' Equity, (iv) Consolidated Statements of Cash Flows, and (v) Notes to Consolidated Financial Statements, tagged as blocks of text and including detailed tags.	—	—	—	—
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)	—	—	—	—

+	Filed herewith.
†	Pursuant to a request for confidential treatment, portions of this Exhibit have been redacted from the publicly filed document and have been furnished separately to the Securities and Exchange Commission as required by Rule 24b-2 under the Securities Exchange Act of 1934.
††	Certain confidential information contained in this Exhibit, marked by asterisks in the Exhibit, has been omitted pursuant to Item 601(b)(2) of Regulation S-K.
*	Indicates a management contract or compensatory plan or arrangement.
**	Schedules have been omitted pursuant to Item 601(b)(2) of Regulations S-K. The registrant will furnish copies of any such schedules to the Securities and Exchange Commission upon request.

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.

SEAGEN INC.

Date: February 11, 2021

/S/ CLAY B. SIEGALL

Clay B. Siegall
President & Chief Executive Officer
(Principal Executive Officer)

Date: February 11, 2021

/S/ TODD E. SIMPSON

Todd E. Simpson
Chief Financial Officer
(Principal Financial and Accounting Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/S/ CLAY B. SIEGALL Clay B. Siegall	Director, President & CEO (Principal Executive Officer)	February 11, 2021
/S/ TODD E. SIMPSON Todd E. Simpson	Chief Financial Officer (Principal Financial and Accounting Officer)	February 11, 2021
/S/ FELIX J. BAKER Felix J. Baker	Director	February 11, 2021
/S/ DAVID W. GRYSKA David W. Gryska	Director	February 11, 2021
/S/ MARC E. LIPPMAN Marc E. Lippman	Director	February 11, 2021
/S/ TED LOVE Ted Love	Director	February 11, 2021
/S/ JOHN A. ORWIN John A. Orwin	Director	February 11, 2021
/S/ Alpna Seth Alpna Seth	Director	February 11, 2021
/S/ NANCY A. SIMONIAN Nancy A. Simonian	Director	February 11, 2021
/S/ DANIEL G. WELCH Daniel G. Welch	Director	February 11, 2021

Exhibit 31.1

CERTIFICATIONS

I, Clay B. Siegall, certify that:

1. I have reviewed this Annual Report on Form 10-K of Seagen Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
    a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
    b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
    c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
    d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
    a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
    b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By: /s/ Clay B. Siegall

Clay B. Siegall

Chief Executive Officer

(Principal Executive Officer)

Date: February 11, 2021

Exhibit 31.2

CERTIFICATIONS

I, Todd E. Simpson, certify that:

1. I have reviewed this Annual Report on Form 10-K of Seagen Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
    a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
    b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
    c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
    d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
    a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
    b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By: /s/ Todd E. Simpson

Todd E. Simpson

Chief Financial Officer

(Principal Financial and Accounting Officer)

Date: February 11, 2021

Exhibit 32.1

SEAGEN INC.
CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Seagen Inc. (the "Company") on Form 10-K for the year ended December 31, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Clay B. Siegall, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

By: /s/ Clay B. Siegall

Clay B. Siegall

Chief Executive Officer

(Principal Executive Officer)

Date: February 11, 2021

This certification accompanies the Form 10-K to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of Seagen Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-K), irrespective of any general incorporation language contained in such filing.

Exhibit 32.2

SEAGEN INC.
CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Seagen Inc. (the "Company") on Form 10-K for the year ended December 31, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Todd E. Simpson, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

By: /s/ Todd E. Simpson

Todd E. Simpson

Chief Financial Officer

(Principal Financial and Accounting Officer)

Date: February 11, 2021

This certification accompanies the Form 10-K to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of Seagen Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-K), irrespective of any general incorporation language contained in such filing.

Corporate Information

EXECUTIVE MANAGEMENT

Clay B. Siegall, Ph.D.
President, Chief Executive Officer and Chairman of the Board

Roger D. Dansey, M.D.
Chief Medical Officer

Vaughn B. Himes, Ph.D.
Chief Technical Officer

Todd E. Simpson
Chief Financial Officer

Jean I. Liu, J.D.
General Counsel and Executive Vice President, Legal Affairs

Natasha A. Hernday
Executive Vice President, Corporate Development

Tuomo T. Pätsi
Executive Vice President, Commercial International

Christopher P. Pawlowicz
Executive Vice President, Human Resources

Charles (Chip) R. Romp
Executive Vice President, Commercial U.S.

Nancy C. Whiting, Pharm.D.
Executive Vice President, Corporate Strategy, Alliances and Communications

BOARD OF DIRECTORS

Clay B. Siegall, Ph.D.
President, Chief Executive Officer and Chairman of the Board, Seagen Inc.

Felix J. Baker, Ph.D.
Co-Managing Member, Baker Bros. Advisors

David W. Gryska
Former Executive Vice President and Chief Financial Officer, Incyte Corporation

Marc E. Lippman, M.D.
Professor of Oncology at Georgetown University Medical Center's Lombardi Comprehensive Cancer Center

Ted W. Love, M.D.
President and Chief Executive Officer, Global Blood Therapeutics

John A. Orwin
President and Chief Executive Officer, Atreca

Alpna H. Seth, Ph.D.
President and Chief Executive Officer, Nura Bio

Nancy A. Simonian, M.D.
Chief Executive Officer, Syros Pharmaceuticals

Daniel G. Welch
Biotechnology Advisor; former Executive Partner of Sofinnova Ventures

CORPORATE HEADQUARTERS

Seagen Inc.
21823 30th Drive Southeast
Bothell, WA 98021
(425) 527-4000

WEBSITE

www.seagen.com

TRANSFER AGENT & REGISTRAR

Computershare
P.O. BOX 505000
Louisville, KY 40233
(877) 419-8489
www.computershare.com/investor

LEGAL COUNSEL

Cooley LLP
Seattle, Washington

INDEPENDENT AUDITORS

PricewaterhouseCoopers LLP
Seattle, Washington

STOCK LISTING

The Company's common stock is traded on the Nasdaq Global Select Market under the symbol SGEN.

STOCKHOLDER INQUIRIES

Communications regarding transfer requirements, lost stock certificates or changes of address should be directed to our Transfer Agent and Registrar. Inquiries regarding the Company and its activities, or requests for a copy of financial documents, such as this annual report and the Form 10-K, may be directed to the Corporate Secretary or the Investor Relations department at our corporate headquarters.

Seagen®

seagen.com Nasdaq: SGEN @SeagenGlobal Find us on LinkedIn

Forward-Looking Statements This 2020 Annual Report, including Seagen's Annual Report on Form 10-K for the year ended December 31, 2020 included with the 2020 Annual Report, contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, such as those, among others, relating to the Company's 2021 outlook, the Company's potential to achieve the noted development and regulatory milestones in 2021 and future periods, the Company's potential to bring a fourth product to market in the United States and effectively commercialize the Company's products in its territories globally; anticipated activities related to the Company's planned and ongoing clinical trials, including clinical trial initiation, enrollment and data availability and the expected timing thereof; the potential for the Company's clinical trials to support further development, regulatory submissions and potential marketing approvals; the opportunities for, and the therapeutic and commercial potential of ADCETRIS, PADCEV, TUKYSA, and tisotumab vedotin and the Company's other product candidates and those of its licensees and collaborators; as well as other statements that are not historical facts. Actual results or developments may differ materially from those projected or implied in these forward-looking statements. Factors that may cause such a difference include the risks that the Company's net sales, revenue, expense, and other financial guidance may not be as expected, as well as risks and uncertainties associated with maintaining or increasing sales of ADCETRIS, PADCEV and TUKYSA due to competition, unexpected adverse events, regulatory action, reimbursement, market adoption by physicians, the impacts of the COVID-19 pandemic, global trends toward healthcare cost containment, challenges in commercializing outside of the U.S. or other factors. The Company may also be delayed or unsuccessful in its planned clinical trial initiations, enrollment in and conduct of its clinical trials, obtaining data from clinical trials, planned regulatory submissions, regulatory approvals and launch in each case for a variety of reasons including the difficulty and uncertainty of pharmaceutical product development, the impacts of the COVID-19 pandemic, negative or disappointing clinical trial results, unexpected adverse events or regulatory actions and the inherent uncertainty associated with the regulatory approval process and the pricing and reimbursement process when applicable. Seagen discusses many of these risks, uncertainties and other factors in greater detail under the heading "Item 1A-Risk Factors" in its Annual Report on Form 10-K for the year ended December 31, 2020 included with this 2020 Annual Report. Seagen disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise except as required by applicable law.