UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2020
or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from to

Commission file number: 001-36182

Xencor, Inc.

(Exact Name of Registrant as Specified in its Charter)

Delaware	**20-1622502**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)
111 West Lemon Avenue, Monrovia, CA	**91016**
(Address of Principal Executive Offices)	(Zip Code)

(626) 305-5900
(Registrant's Telephone Number, Including Area Code)

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

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock, par value $0.01 per share	XNCR	The Nasdaq Global Market

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 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 (§232.405 of this chapter) 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 ☐	Non-accelerated filer ☐	Smaller reporting company ☐ Emerging growth company ☐

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

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Securities Exchange Act of 1934). Yes ☐ No ☒

The aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold as of June 30, 2020 was $1,843,897,240.

The number of outstanding shares of the registrant's common stock, par value $0.01 per share, as of February 16, 2021 was 57,945,225.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's proxy statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A in connection with the registrant's 2021 Annual Meeting of Stockholders, which will be filed subsequent to the date hereof, are incorporated by reference into Part III of this Form 10-K. Such proxy statement will be filed with the Securities and Exchange Commission not later than 120 days following the end of the registrant's fiscal year ended December 31, 2020.

Xencor, Inc.
FORM 10-K
For the Fiscal Year Ended December 31, 2020
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The Xencor logo is a trademark of Xencor, Inc. XmAb, PDA and Protein Design Automation are also registered trademarks of Xencor. All other product and company names are trademarks of their respective companies. References in this Annual Report on Form 10-K to "we", "our", "us", "Xencor" or "the Company" refer to Xencor, Inc.

PART I

Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. You should not place undue reliance on these statements. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends affecting the financial condition of our business. Forward-looking statements should not be read as a guarantee of future performance or results and will not necessarily be accurate indications of the times at, or by, which such performance or results will be achieved. Forward-looking statements are based on information available at the time those statements are made and/or management's good faith belief as of that time with respect to future events, and are subject to risks and uncertainties that could cause actual performance or results to differ materially from those expressed in or suggested by the forward-looking statements. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth below under Part I, Item 1A, "Risk Factors" in this Annual Report. These statements, which represent our current expectations or beliefs concerning various future events, may contain words such as "may," "will," "expect," "anticipate," "intend," "plan," "believe," "estimate" or other words indicating future results. Such statements may include, but are not limited to, statements concerning the following:

- the effects of the ongoing COVID-19 pandemic on our financial condition, results of operations, cash flows and performance;
- our ability to execute on our plans to research, develop and commercialize our product candidates;
- the success of our ongoing and planned clinical trials;
- the timing of and our ability to obtain and maintain regulatory approval for our product candidates;
- our ability to identify additional products or product candidates with significant commercial potential that are consistent with our business objectives;
- our ability to receive research funding and achieve anticipated milestones under our collaborations;
- our partners' ability to advance drug candidates into, and successfully complete, clinical trials;
- our ability to attract collaborators with development, regulatory, and commercialization expertise;
- our ability to protect our intellectual property position;
- the rate and degree of market acceptance and clinical utility of our products;
- costs of compliance and our failure to comply with new and existing governmental regulations;
- the capabilities and strategy of our suppliers and vendors including key manufacturers of our clinical drug supplies;
- significant competition in our industry;
- the potential loss or retirement of key members of management;
- our failure to successfully execute our growth strategy including any delays in our planned future growth;
- our failure to maintain effective internal controls; and

- our ability to accurately estimate expenses, future revenues, capital requirements and needs for additional financing.

Given these uncertainties, you should not place undue reliance on these forward-looking statements. These forward-looking statements represent our estimates and assumptions only as of the date of this Annual Report, and except as required by law, we undertake no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events, or otherwise after the date of this Annual Report. We qualify all of our forward-looking statements by these cautionary statements.

Item 1. Business.

Our Business

We are a clinical-stage biopharmaceutical company focused on discovering and developing engineered monoclonal antibody and cytokine therapeutics to treat patients with cancer and autoimmune diseases who have unmet medical needs. We are advancing a broad portfolio of clinical-stage drug candidates from our proprietary XmAb® technology platforms. We use our protein engineering capabilities to increase our understanding of protein structure and interactions and to design new XmAb technologies and development candidates with improved properties. In contrast to conventional approaches to antibody design, which focus on the segment of antibodies that interact with target antigens, our work is focused on the Fc domain, the part of an antibody that interacts with multiple segments of the immune system and controls antibody structure. The Fc domain is constant and interchangeable among antibodies, and our engineered Fc domains, the XmAb technology, can be readily substituted for natural Fc domains.

Our protein engineering capabilities and XmAb technologies enable us and our partners to develop antibodies and biotherapeutic drug candidates with improved properties and function, which can provide innovative approaches to treating disease and potential clinical advantage over other treatment options. For example, our capabilities have enabled us to develop an antibody scaffold to rapidly create novel bispecific antibodies that bind two different targets simultaneously, creating entirely new biological mechanisms. Other applications of our XmAb technologies enhance antibody performance by increasing immune inhibitory activity, improving cytotoxicity, extending circulating half-life and stabilizing novel protein structures, such as engineered cytokines. Currently, there are two marketed drugs that have been developed with our XmAb technologies.

On July 31, 2020, the U.S. Food and Drug Administration (FDA) approved our partner MorphoSys' Monjuvi® (tafasitamab-cxix) in combination with lenalidomide, for the treatment of adult patients with relapsed or refractory diffuse large B-cell lymphoma (DLBCL) not otherwise specified, including DLBCL arising from low grade lymphoma, and who are not eligible for autologous stem cell transplant (ASCT). This indication is approved under accelerated approval based on overall response rate. Continued approval for this indication may be contingent upon verification and description of clinical benefit in a confirmatory trial(s). We created and initially developed tafasitamab, which incorporates our XmAb Cytotoxic Fc Domain to enhance its tumor killing properties. Monjuvi is a registered trademark of MorphoSys AG.

Alexion's Ultomiris® (ravulizumab-cwvz) was first approved by the FDA in December 2018. It is now approved in the U.S., Europe and Japan for the treatment of adult patients with paroxysmal nocturnal hemoglobinuria (PNH) and for the treatment of patients with atypical hemolytic uremic syndrome (aHUS). Alexion used our Xtend™ Fc Domain to enhance the half-life of Ultomiris to allow for a longer duration of action, less frequent dosing and reduced patient burden of therapy compared to the previous generation therapy, Soliris®.

Our protein engineering capabilities allow us to continually explore new functionality in the Fc region, which provides us with opportunities to:

- Create new technology platforms;
- Make new drug candidates for internal development or partnering opportunities; and

- Provide collaboration and licensing opportunities with partners for application of our technologies, access to our technologies, access to our drug candidates, or combinations of each.

Our Strategy

Our goal is to become a leading biopharmaceutical company focused on developing and commercializing engineered biologic medicines to treat patients with severe and life-threatening diseases with unmet medical needs. Key elements of our strategy are to:

1. ***Advance the clinical development of our XmAb bispecific antibody and cytokine drug candidates.*** Our modular XmAb bispecific technology and protein engineering capabilities enable us to rapidly advance multiple drug candidates into clinical development. We and our partners are enrolling Phase 1 studies for seven of these candidates to treat patients with many different types of cancer, and an eighth, to be developed for patients with autoimmune disease, is expected to start a Phase 1 study in early 2021. We and our partners plan to advance additional bispecific antibodies and cytokines into clinical development in the future.

2. ***Build a large and diversified portfolio of XmAb drug candidates.*** We create new XmAb-engineered antibody and cytokine product candidates to exploit the novel mechanisms of action enabled by our XmAb technology platforms and advance them into our internal portfolio of preclinical and clinical-stage assets, or, if strategically appropriate, we license certain drug candidates to leading pharmaceutical and biotechnology companies.

3. ***Leverage our protein engineering capabilities, XmAb technologies, and XmAb drug candidates with partnerships, collaborations, and licenses to generate revenue streams, create new drug candidates and combination treatments, and identify new indications for our pipeline of drug candidates.***

   Generate revenue streams. The plug-and-play nature of our XmAb technologies and our ability to generate multiple drug candidates efficiently provides us opportunities to generate revenue from licensing and collaboration arrangements. In 2020, we received total proceeds of $165 million in upfront payments, milestone payments and royalties from such arrangements.

   Create new drug candidates and investigate novel combination therapies. We seek to leverage our XmAb technologies and drug candidates with partners to create novel drug candidates, including combination therapies. In 2020, we entered into separate agreements with Atreca, Inc. and The University of Texas MD Anderson Cancer Center to create novel CD3 bispecific antibody drug candidates. We also entered into a clinical collaboration with MorphoSys AG and Incyte Corporation, in which we plan to conduct multiple clinical studies in B-cell lymphomas, combining our plamotamab drug candidate with tafasitamab in combination with lenalidomide.

   Identify new indications for our pipeline of drug candidates. In August 2020, we entered into a five-year strategic collaboration with MD Anderson. We will support Investigator Sponsored Trials (ISTs) in which MD Anderson's investigators may explore additional indications for our pipeline of candidates.

4. ***Broaden the functionality of our XmAb technology platform.*** We are conducting further research into the function and application of antibody Fc domains in order to expand the scope of our XmAb technology platforms. We use the modularity of our XmAb bispecific Fc technology to build bispecific antibodies and cytokines in a variety of formats, recently introducing CD3 bispecific antibodies of a mixed valency format, the XmAb 2+1 bispecific antibody. XmAb 2+1 bispecific antibodies may preferentially kill tumor cells with high target expression which may be especially beneficial in designing antibodies that target solid tumors.

   Additionally, we have engineered CD28 bispecific antibodies to provide conditional CD28 co-stimulation of T cells, activating them when bound to tumor cells. Targeted CD28 bispecific antibodies may provide conditional co-stimulation of T cells, for example, to T cells recognizing neoantigens or in concert with CD3 T-cell engaging bispecific antibodies.

5. ***Continue to expand our patent portfolio protecting our XmAb technologies and XmAb candidates.*** We seek to expand our intellectual property estate and protect our XmAb technologies, our development programs, and product candidates by filing and prosecuting patents in the United States and other countries. Where appropriate we will seek expansion and extension of patents issued for our product candidates.

XmAb Bispecific Technologies

A distinguishing feature of our XmAb technologies arises from our modular approach to protein engineering. This provides us with flexibility to seek out new applications of the XmAb Bispecific Fc Domain and enables us to design new bispecific antibody and cytokine drug candidates with distinct and novel mechanisms-of-action. This approach is illustrated through the expansion of our portfolio of novel bispecific antibody and cytokine candidates. Our business, research, and clinical efforts are to develop and advance our XmAb bispecific technologies and our portfolio of bispecific antibodies and cytokines in oncology and autoimmune diseases.

CD3 candidates: our initial bispecific antibody candidates are designed to redirect T cells to tumor cells through the engagement of an antigen on tumor cells and CD3, an activating receptor on T cells. We are currently conducting Phase 1 studies for three CD3 bispecific antibody candidates: plamotamab, vibecotamab, and tidutamab.

We have expanded our T-cell redirecting CD3 class of bispecific antibodies to create the XmAb 2+1 bispecific antibody format, utilizing two identical tumor targeting domains and one CD3 targeting domain. The affinities for antigen binding are reduced, which allows for selective engagement and killing of high antigen-expressing tumor cells over low antigen-expressing normal cells. In preclinical models, XmAb 2+1 bispecific antibodies bound preferentially to tumor cells compared to normal cells and effectively recruited T cells to kill tumor cells selectively. We believe that these properties will be particularly important when developing bispecific antibodies against many solid tumor targets, which can have poor tolerability because such targets are often expressed on a range of normal tissues, including critical organs. Our initial candidate using the XmAb 2+1 format is XmAb819, an ENPP3 x CD3 bispecific antibody, and we expect to submit an Investigational New Drug (IND) application in 2021.

CD28 candidates: T cells in the tumor microenvironment require both T cell receptor (TCR) and co-stimulatory receptor engagement to achieve full activation. CD28 is a key immune co-stimulatory receptor on T cells; however, the ligands that activate T cells through CD28 are often not expressed on tumor cells. Targeted CD28 bispecific antibodies may provide conditional co-stimulation of T cells, for example, to T cells recognizing neoantigens or in concert with CD3 T-cell engaging bispecific antibodies. We have engineered XmAb bispecific antibodies to provide conditional CD28 co-stimulation of T cells, activating them when bound to tumor cells, and we are conducting preclinical studies of internal CD28 candidates. Under our collaboration with Janssen Biotech, Inc., we are applying our XmAb bispecific Fc technology to create and characterize CD28 bispecific antibody candidates against a prostate tumor target.

TME activator candidates: we expanded the functionality of our bispecific Fc platform with a suite of tumor microenvironment (TME) activators that have been designed to promote tumor-selective T-cell activation by targeting multiple checkpoints or co-stimulating receptors. These candidates incorporate our Xtend technology for longer half-life. We are currently conducting Phase 1 studies for three TME activator candidates: XmAb717, XmAb841 and XmAb104.

Cytokine candidates: we have expanded the use of our bispecific Fc platform to engineer novel cytokine candidates, which are not antibodies but fusions of a heterodimeric Fc domain and immune signaling proteins. Our cytokine candidates are potency tuned to improve therapeutic index and incorporate our Xtend technology for longer half-life. XmAb306 (RO7310729), formerly XmAb24306, is an IL-15/IL-15Ra-Fc fusion, which we believe is a promising candidate for oncology combination therapies, and our partner Genentech is conducting a Phase 1 dose-escalation study. A second IL-15 cytokine candidate, which is engineered with a target-specific binding arm for immune cell targeting, is also being explored in preclinical studies.

XmAb564 is a wholly owned IL-2-Fc fusion that we intend to develop for the treatment of patients with autoimmune diseases. In January 2021, the IND application for XmAb564 was allowed by the FDA, and we plan to initiate a Phase 1 study in healthy volunteers for this candidate in early 2021.

We continue to invest in our protein engineering efforts to identify novel technologies and drug candidates.

Other XmAb Fc Technologies

We have also designed additional XmAb Fc technologies and XmAb drug candidates. We have successfully partnered our technologies and many drug candidates, and we will continue to seek additional partnering and licensing opportunities for these technologies and candidates. Additional XmAb Fc domains include:

1. ***Immune Inhibitor Fc Domain*** – selective immune inhibition and rapid target clearance, targeting the receptor FcγRIIb;

2. ***Cytotoxic Fc Domain*** – increased cytotoxicity, targeting the receptors FcγRIIIa on natural killer (NK) cells and FcγRIIa on other immune system cells; and

3. ***Xtend™ Fc Domain*** – extended antibody half-life, targeting the receptor FcRn on endothelial cells.

Drug Candidates in Clinical Development

Currently 20 drug candidates in clinical development have been engineered with one or more of our Fc technologies, and one incorporates our DN-TNF technology. Ten of the candidates that are being advanced by us and our partners have been engineered with our bispecific Fc domain for dual targeting and are bispecific antibody and cytokine candidates; one candidate in clinical development incorporates our immune inhibitor Fc domain, and seven candidates incorporate our cytotoxic or Xtend Fc domains.

Wholly Owned	Co-developed with Partners	Developed by Partners
Plamotamab (XmAb13676)	Vibecotamab (XmAb14045)	Ultomiris*
XmAb717 (XmAb20717)	XmAb306/RG6323 (XmAb24306)	Monjuvi*
Tidutamab (XmAb18087)		VIR-7831
XmAb841 (XmAb22841)		XPro1595/INB03/Quellor™
XmAb104 (XmAb23104)		AIMab7195
XmAb564 (XmAb27564)		Elipovimab (GS-9722)
XmAb698 (AMG 424)		VIR-3434
		Novartis bispecific antibody
		AMG 509
		VIR-2482
		GS-9723

*Alexion and MorphoSys are conducting additional Phase 3 studies in new indications with these candidates.

XmAb Bispecific Fc Drug Candidates

Currently 10 drug candidates that have been engineered with our bispecific Fc domain are in clinical development. Six candidates are wholly owned and are being evaluated by us in Phase 1 studies. We are co-developing two candidates with partners. In addition, partners are advancing two bispecific antibody candidates through clinical development. Additional candidates are advancing through the preclinical stages of development. Drug candidates with our bispecific Fc domain, both bispecific antibodies and cytokines, in clinical development include:

1. *Plamotamab* is a bispecific antibody that targets CD20, an antigen on B-cell tumors, and CD3, an activating receptor on T cells. In February 2017, we dosed the first patient in an open-label, Phase 1, multiple-dose, dose escalation study to assess the safety, tolerability, and preliminary anti-tumor activity of plamotamab in patients with B-cell malignancies. At the ASH Annual Meeting in December 2019, we presented preliminary safety and anti-tumor activity of plamotamab, including from patients with relapsed or refractory non-Hodgkin's lymphoma (NHL). We are enrolling patients in the ongoing dose-escalation study, and we are planning to initiate additional studies for plamotamab in 2021 including a Phase 1/2 study evaluating the combination of

plamotamab, tafasitamab (Monjuvi) and lenalidomide in patients with relapsed or refractory DLBCL, an aggressive type of NHL.

2. *XmAb717* is a bispecific antibody that targets PD-1 and CTLA-4, two immune checkpoint receptors, to selectively activate the tumor microenvironment, and it is being developed in multiple types of solid tumors, including for patients with castration-resistant prostate cancer. In July 2018, we dosed the first patient in an open-label Phase 1 dose-escalation and expansion study to assess the safety, tolerability, and preliminary anti-tumor activity of XmAb717 in patients with selected solid tumors.

   We presented updated data from the study at the Annual Meeting of the Society for Immunotherapy of Cancer (SITC) in November 2020. In the study's escalation phase, a dose of 10 mg/kg was identified as the recommended dose for the multi-cohort, parallel-group expansion phase, based on an observation of consistent proliferation of both CD8+ and CD4+ T cells, indicative of dual checkpoint blockade, and a complete response (CR) in one patient with melanoma. At the data cut off on September 30, 2020, 89 patients had been treated at the recommended dose in five dose expansion cohorts that enrolled patients with melanoma (n=20), renal cell carcinoma (RCC, n=11), non-small cell lung cancer (NSCLC, n=20), castration-resistant prostate cancer (CRPC, n=18) and other cancers without approved checkpoint therapies (n=20). XmAb717 was generally well-tolerated, and the most common treatment-related adverse events were immune-related adverse events (irAEs); however, rates of irAEs, including colitis, were lower than typically observed with CTLA-4 blockade. With exceptions for rash and increases in transaminases, other Grade 3 or higher irAEs were reported for no more than three patients each. The efficacy analysis included 42 evaluable patients at the recommended dose level. A complete response was observed in a patient with melanoma (1/10), and partial responses were observed in multiple tumor types, including melanoma (2/10), RCC (1/4), NSCLC (2/14), CRPC (1/4), and ovarian cancer (1/5). The objective response rate across cohorts was 19.0% (8/42). Across the expansion cohorts, approximately half of evaluable patients had at least 10% tumor shrinkage from baseline assessments, and nearly all these reductions occurred in patients with prior checkpoint inhibitor treatment. The median duration of response was 119 days at the time of the data cut off, and 24 patients remained on treatment. Of nine patients with prostate cancer who had baseline and follow-up prostate-specific antigen (PSA) assessments, one achieved a PSA reduction of greater than 50 percent. Two additional patients achieved reductions of greater than 30 percent, one of whom had an unconfirmed partial response by RECIST. Six of these nine patients remained on therapy as of the cut-off date.

   In the first half of 2021, we plan to initiate a Phase 1b study of XmAb717 for patients with certain molecular subtypes of CRPC, as a monotherapy or in combination depending on the subtype, as these patients represent a high unmet medical need.

3. *Vibecotamab* is a bispecific antibody that targets CD123, an antigen on acute myeloid leukemia (AML) cells and leukemic stem cells, and CD3, an activating receptor on T cells. It is being developed in collaboration with our partner Novartis Institutes for BioMedical Research, Inc. (Novartis) and is being evaluated in a Phase 1 study. In September 2016, we dosed the first patient in an open-label, multiple-dose, dose escalation study to assess the safety, tolerability, and preliminary anti-tumor activity of vibecotamab in patients with relapsed or refractory AML and other CD123-expressing hematologic malignancies. The study is ongoing, and additional patients are being enrolled.

   We presented updated data from the study at the American Society of Hematology (ASH) Annual Meeting in December 2020. At data cut off on October 28, 2020, 112 heavily pretreated patients with relapsed or refractory AML had received vibecotamab. Cytokine release syndrome (CRS) was the most common toxicity occurring in 61% of patients (n=68), and 9% of patients (n=10) experienced CRS at Grade 3 or higher. The majority of CRS was observed in the first dose and was generally manageable with premedication. Additional mitigation measures included selecting a lower priming dose, avoiding weekly dose step-up, and more frequent dosing in the first week to allow a higher cumulative exposure and to avoid the potential CD123 antigen sink. There was no evidence of drug related myelosuppression. Neurological events were infrequent and primarily Grade 1 and Grade 2 headaches. The efficacy analysis included 54 evaluable patients who received a dose of at least 0.75 mcg/kg, completed at least the first cycle of treatment and had at least one post-treatment disease assessment.

Two patients achieved complete remission (CR), and three patients achieved a CR with incomplete hematologic recovery. Additionally, two patients reached a morphologic leukemia-free state, and one patient experienced partial remission, as assessed by the investigator. The overall response rate (ORR) was 15% (n=8/54). Biomarker analyses suggest that low baseline leukemic burden and low PD-1 expression on CD4+ and CD8+ T cells are independent predictors of response. Seven responders had a baseline blast count less than or equal to 25% blasts in bone marrow. The ORR increased to 26% (n=7/27) when using this threshold to define the population with low disease burden for the analyses.

In 2021, pending final dose escalation data and agreement with our partner, Novartis, we plan to initiate additional clinical studies evaluating vibecotamab.

4. *Tidutamab* is a bispecific antibody that targets somatostatin receptor 2, or SSTR2, a target on many neuroendocrine-like tumor types, and CD3. In February 2018, we dosed the first patient in an open-label, Phase 1, dose-escalation study to assess the safety, tolerability, and preliminary anti-tumor activity of tidutamab in patients with neuroendocrine tumors (NET) or gastrointestinal stromal tumors (GIST).

   In October 2020, we presented initial dose-escalation data in patients with NETs at the North American Neuroendocrine Tumor Society's 2020 Multidisciplinary NET Medical Virtual Symposium (NANETS). Tidutamab was generally well tolerated at the recommended dose identified for the expansion portion of the study, a 0.3 mcg/kg priming dose and subsequent 1.0 mcg/kg repeated doses. Analysis of peripheral blood biomarkers indicated that tidutamab induced acute and sustained T-cell activation at the recommended dose for expansion. The analysis also indicated a dose-dependent increase in proliferation and activation markers on CD8-positive effector T cells, which is consistent with tidutamab's mechanism of action. Fourteen patients, including 12 across the first three dose-escalation cohorts and two in the expansion cohort, were included in the analysis to describe clinical activity. The best overall response was stable disease, with a disease control rate of 43% and a median duration of treatment of approximately seven months. Completion of enrollment in the expansion cohort and longer follow-up are required to evaluate progression-free survival and the clinical utility of tidutamab in this NET patient population.

   Because tidutamab induced sustained activation of cytotoxic T cells and engagement of the SSTR2 target, as designed, and has an encouraging safety profile, we plan to initiate a clinical study for tidutamab in patients with Merkel cell carcinoma and small cell lung cancer, SSTR2-expressing tumor types known to be responsive to immunotherapy, in early 2021.

5. *XmAb841* is a bispecific antibody that targets CTLA-4 and LAG-3, also an immune checkpoint receptor, and is being developed in multiple oncology indications. We are advancing XmAb841 in combination with an anti-PD-1 drug to create a triple checkpoint blockade. In May 2019, we dosed the first patient in an open-label, Phase 1, dose-escalation study to assess the safety, tolerability, and preliminary anti-tumor activity of XmAb841 in patients with selected solid tumors. We are enrolling patients to a single-agent dose-escalation portion cohort and a cohort combining XmAb841 with pembrolizumab.

6. *XmAb104* is a bispecific antibody that targets PD-1 and ICOS, an immune co-stimulatory receptor, and is being developed in multiple oncology indications. In May 2019, we dosed the first patient in a an open-label, Phase 1, dose-escalation study to assess the safety, tolerability, and preliminary anti-tumor activity of XmAb104 in patients with selected solid tumors. We continue to enroll patients with select solid tumors in the Phase 1 dose escalation study.

7. *XmAb306 (RO7310729)* is an engineered cytokine, an IL15/IL15-receptor alpha complex fused to our bispecific Fc domain (IL15/IL15Rα-Fc), and the Fc domain incorporates our Xtend technology for extended half-life. We believe a broad combination development strategy will be critical to realize the potential of IL-15 cytokines like XmAb306 in oncology. In February 2019, we entered into a research and license agreement with Genentech, Inc. and F. Hoffmann-LaRoche Ltd. (collectively Genentech), to develop and commercialize novel IL-15 cytokine therapeutics, whereby the companies are co-developing XmAb306 and other potential IL-15 programs. Genentech is conducting a Phase 1 dose-escalation study of XmAb306 as a single agent and in combination

with atezolizumab.

8. *AMG 509* is a STEAP1 x CD3 bispecific antibody candidate for the treatment of patients with prostate cancer. In December 2019, Amgen Inc. initiated a Phase 1 clinical study with AMG 509, a 2+1 bispecific antibody candidate that was developed with our bispecific Fc technology under our collaboration with them. Amgen is currently enrolling patients in a Phase 1 study of AMG 509 in patients with metastatic castration-resistant prostate cancer (mCRPC).

9. *XmAb698 (AMG 424)*, a CD38 x CD3 bispecific antibody candidate, was developed in the Amgen collaboration and was being advanced by Amgen in a Phase 1 study. In 2020, Amgen notified us that they were terminating the study, and the rights to the candidate reverted to us under the Agreement. We are currently evaluating this candidate and plan to initiate a new study for it in 2021.

10. *Novartis XmAb undisclosed bispecific antibody candidate:* in December 2019, Novartis initiated a Phase 1 clinical study with an undisclosed bispecific antibody candidate that was developed with our bispecific Fc technology under our collaboration with them.

XmAb Immune Inhibitor Fc Candidates

AIMab7195 (XmAb7195) uses our XmAb Immune Inhibitor Fc Domain and is designed to reduce blood serum levels of IgE, which mediates allergic responses and allergic disease. In February 2020, we licensed this drug candidate to Aimmune Therapeutics, Inc., now a wholly owned subsidiary of Nestlé S.A., which is advancing the candidate in clinical studies for allergic indications.

Obexelimab targets CD19 with its variable domain and uses our XmAb Immune Inhibitor Fc Domain, which is designed to inhibit the function of B cells, an important component of the immune system. We believe that obexelimab has the potential to address a key unmet need in autoimmune diseases due to its combination of potent reversible B-cell inhibition without B-cell depletion, enabling the immune system to resume natural function once treatment is no longer needed. We are exploring opportunities to continue development of obexelimab with partners.

XmAb Cytotoxic Fc and Xtend Candidates

Currently, one drug engineered with our Xtend Fc Domain and one drug we engineered with our XmAb Cytotoxic Fc Domain are marketed commercially by partners. In addition, our partners are advancing eight clinical programs with antibodies engineered with XmAb technologies through clinical development: three programs are in Phase 3, one program is in Phase 2, and four programs are in Phase 1. Other partners are conducting preclinical studies of drug candidates engineered with these XmAb technologies.

- MorphoSys AG: In 2020, Monjuvi was approved for marketing by the U.S. FDA for the treatment of certain adult patients with DLBCL. Tafasitamab's marketing authorization application is under review by European regulators, and MorphoSys is also conducting studies of tafasitamab in additional B-cell indications.

- Alexion Pharmaceuticals, Inc.: Ultomiris was approved for marketing by the U.S. FDA in 2018, and Alexion is conducting Phase 3 studies of Ultomiris in additional neurology and nephrology indications.

- Gilead Sciences, Inc.: Gilead is advancing HIV candidates in clinical development that are broadly neutralizing antibodies that incorporate our Fc technologies. Gilead is conducting Phase 1 clinical studies of elipovimab (GS-9722) and GS-9723.

- Vir Biotechnology, Inc.: Vir is advancing three candidates in clinical development. VIR-7831 is an antibody that is being investigated in a Phase 3 study as a potential treatment for the treatment of patients with COVID-19. VIR-2482 is being evaluated in a Phase 1/2 study as a universal prophylactic for influenza A. VIR-3434 is being evaluated in a Phase 1 study as a potential treatment for patients with hepatitis B virus infection.

- Omeros Corporation, Viridian Therapeutics, Inc. and Catabasis Pharmaceuticals, Inc. each are conducting preclinical studies with candidates that incorporate our XmAb technologies.

XPro1595

In October 2017, we licensed the rights to XPro1595, a proprietary TNF inhibitor candidate to INmune Bio, Inc. INmune is currently conducting a Phase 2 study in hospitalized patients with respiratory symptoms from COVID-19 infection, as Quellor™; a Phase 1 study in patients Alzheimer's disease, as XPro1595; and a Phase 1 study in patients with advanced cancers, as INB03.

Collaborations, Partnerships and Licensing Arrangements

A key part of our business strategy is to leverage our protein engineering capabilities, XmAb technologies, and drug candidates with partnerships, collaborations and licenses. Through these arrangements we generate revenues in the form of upfront payments, milestone payments and royalties. For partnerships for our drug candidates, we aim to retain a major economic interest in these candidates through transactions that allow us to retain major geographic commercial rights, provide for profit-sharing on future sales of approved products, include co-development options, and also the right to conduct independent clinical studies with drug candidates developed in the collaboration.

Examples of arrangements we have entered with our partners include:

- *Product Licenses*: Genentech, MorphoSys AG, Nestlé S.A., Novartis AG, INmune Bio, Inc.
- *Novel Bispecific Antibody Collaborations*: Janssen Biotech, Inc., Astellas Pharma, Inc., Amgen Inc., Novartis AG
- *Technology Licensing Agreements*: Alexion Pharmaceuticals, Inc., Vir Biotechnology, Inc., Gilead Sciences, Inc., Omeros Corporation, Viridian Therapeutics, Inc., Catabasis Pharmaceuticals, Inc.
- *Strategic Collaborations*: MorphoSys AG, Atreca, Inc., The University of Texas MD Anderson Cancer Center

Product Licenses

Product licenses are arrangements in which we have internally developed drug candidates, and based on a strategic review we licensed partial or full rights to third parties to continue development and potential commercialization. We seek partners that can provide infrastructure and resources to successfully develop our drug candidates, have a track record of successfully developing and commercializing medicines, or have a portfolio of development-stage candidates and commercialized medicines which could potentially be developed in rational combinations with our drug candidates.

Genentech

In February 2019, we entered into an agreement with Genentech to develop and commercialize novel IL-15 cytokine therapeutics that use our bispecific Fc technology, including XmAb306, declared as a Collaboration Product under the agreement. We are jointly collaborating on the worldwide development of XmAb306 with Genentech maintaining worldwide commercialization rights, subject to us having a co-promotion option in the U.S. We retain the right to perform clinical studies with XmAb306 at our sole expense in combination with other therapeutic agents, subject to certain restrictions. Genentech received a worldwide exclusive license to XmAb306.

We received an upfront payment of $120.0 million. We are eligible to receive up to $160.0 million in clinical milestone payments for XmAb306, up to $180.0 million in clinical milestone payments for each new Collaboration Product, and a 45% share of net profits from sales from all Collaboration Products, while also sharing in the net losses at

the same percentage rate. We are sharing in 45% of development and commercialization costs of Collaboration Products, while Genentech will pay for commercial launch costs. We are conducting a two-year joint research program with Genentech to discover additional IL-15 programs.

MorphoSys AG

In July 2020, the FDA approved Monjuvi® (tafasitamab-cxix) in combination with lenalidomide for treating certain patients with DLBCL. Tafasitamab, which we engineered with an XmAb Cytotoxic Fc Domain, is the second product with XmAb technology to be approved by the FDA.

In 2010, we licensed exclusive worldwide rights to develop and commercialize tafasitamab (formerly MOR208 and XmAb5574) to MorphoSys. In 2020, we earned a total of $37.5 million in regulatory milestones and royalties of $1.5 million on net sales. We are also eligible to receive up to $98.0 million in additional milestones for development of tafasitamab in additional oncology indications and $50.0 million in sales milestones across all indications. We are entitled to receive tiered royalties in the high-single digit to low-double digit percent range on net sales. Monjuvi is co-commercialized in the U.S. by MorphoSys and Incyte Corporation. The European Marketing Authorization Application for tafasitamab is currently under review by the European Medicines Agency.

Nestlé S.A./Aimmune Therapeutics, Inc.

In February 2020, we granted Aimmune Therapeutics, Inc., an exclusive worldwide license to develop and commercialize XmAb7195, which was renamed AIMab7195. We received an upfront payment of $9.6 million in cash and shares of Aimmune common stock. Aimmune was subsequently acquired by Nestlé S.A. Nestlé is responsible for all further development and commercialization activities for AIMAb7195. We are eligible to receive up to $385.0 million in milestones, which includes $22.0 million in development milestones, $53.0 million in regulatory milestones and $310.0 million in sales milestones, and tiered royalties in the high-single to mid-teen percent range on net sales of approved products. Nestlé is planning additional studies of AIMab7195.

Novartis AG

In connection with our June 2016 Collaboration and License Agreement with Novartis (the Novartis Agreement), we granted Novartis certain exclusive rights to research, develop, and commercialize vibecotamab. We are eligible to receive up to $325.0 million in milestone payments in connection with the development of vibecotamab, including $90.0 million in development milestones, $110.0 million in regulatory milestones, and $125.0 million in sales milestones, and low-double digit royalties on sales of approved products in all territories outside the United States. We retained the commercialization rights to vibecotamab in the U.S. We and Novartis are co-developing vibecotamab worldwide and are sharing development costs equally.

INmune Bio, Inc.

In October 2017, we entered into an agreement with INmune Bio, Inc., in which we provided INmune with an exclusive license to our XPro1595 drug candidate. In connection with the license, we received 1,585,000 shares of INmune common stock and an option to acquire up to 10% of the outstanding shares of INmune for $10.0 million. We are also eligible to receive a percentage of sublicensing revenue received for XPro1595 and royalties in the mid-single digit percentage range on the sale of approved products. INmune is currently conducting a Phase 2 study in hospitalized patients with respiratory symptoms from COVID-19 infection, as Quellor™; a Phase 1 study in patients Alzheimer's disease, as XPro1595; and a Phase 1 study in patients with advanced cancers, as INB03.

Private Company

In November 2020, we entered into an agreement with a newly formed, privately held biotechnology company to which we licensed the exclusive worldwide rights to develop and commercialize three preclinical-stage Fc-engineered drug candidates for autoimmune disease: XmAb6755, XPro9523 and XmAb10717. These programs incorporate an Xtend Fc Domain, a Cytotoxic Fc Domain, or both. We received a 15% equity interest in the company, and we will also

receive royalties on net sales of approved products in the mid-single digit to mid-teen percentage range.

Novel Bispecific Antibody Collaborations

Novel bispecific antibody collaborations are arrangements in which our partner seeks to create a bispecific antibody using one or more of our XmAb bispecific technologies. Our partners provide an antibody or an antigen against tumors, and we conduct limited research and development activities to create potential bispecific antibody candidates for further development and commercialization by our partners.

Janssen Biotech, Inc.

In November 2020, we entered into an agreement, which became effective in December 2020, with Janssen Biotech, Inc., to develop XmAb bispecific antibodies against CD28 and an undisclosed prostate tumor target, for the potential treatment of patients with prostate cancer. Under the agreement, we will conduct research activities to develop CD28 bispecific drug candidates for further development by Janssen. Preclinical activities and all clinical development, regulatory and commercial activities will be conducted by Janssen, which has exclusive worldwide rights to develop and commercialize the novel drug candidates developed in the collaboration. We received a $50.0 million upfront payment and are eligible to receive a total of $662.5 million in milestone payments which include $161.9 million in development milestones, $240.6 million in regulatory milestones, and $260.0 million in sales milestones. We are also eligible to receive tiered royalties in the high-single to low-double digit percentage range on net sales.

Upon development of a bispecific candidate by Janssen through proof of concept, the agreement provides us the right to opt-in to fund 20% of development costs and to perform up to 30% of detailing efforts in the U.S. If we exercise this right, we will be eligible to receive tiered royalties in the low-double digit to mid-teen digit percentage range.

Both we and Janssen also have the right to access predefined agents from each other's portfolios to evaluate potential combination therapies in prostate cancer, subject to certain limitations.

Astellas Pharma, Inc.

In March 2019, we entered into an agreement with Astellas Pharma, Inc., under which we applied our XmAb bispecific Fc technology to an antigen pair provided by Astellas and generated bispecific antibody candidates for further certain characterization and testing, and in 2019, we completed delivery of the candidates to Astellas for development and potential commercialization. Astellas was granted a worldwide exclusive license, with the right to sublicense products in the field created by the research activities. We received an upfront payment of $15.0 million, and we are eligible to receive up to $240.0 million in milestones which include $32.5 million in development milestones, $57.5 million in regulatory milestones and $150.0 million in sales milestones and royalties on net sales in the high-single to low-double digit percentage range. In 2020, we received a $2.5 million milestone payment related to Astellas advancing a bispecific candidate into IND enabling studies, and we are eligible to receive an additional $30.0 million in development milestones as the program advances.

Amgen Inc.

In September 2015, we entered into an agreement with Amgen Inc. to develop and commercialize bispecific antibody product candidates using our proprietary XmAb bispecific Fc technology.

We granted Amgen an exclusive license to the rights to our CD38 x CD3 preclinical program, and they developed AMG 424. In May 2020, Amgen notified us it was terminating its rights with respect to the CD38 x CD3 program, including AMG 424. Under the terms of the agreement, the rights to the AMG 424 program reverted to us. We renamed the program XmAb698 and plan to initiate a new study for it in 2021.

Amgen also applied our XmAb bispecific Fc technology to create AMG 509, a STEAP1 x CD3 XmAb 2+1 bispecific antibody. We have received a total of $60.5 million in upfront and milestone payments and are eligible to receive up to $255.0 million in future development, regulatory and sales milestone payments in total for the STEAP1 x

CD3 program and royalties on net sales.

Novartis AG

In connection with our June 2016 agreement with Novartis, we also applied our XmAb bispecific Fc technology to two target pair antibodies selected by Novartis. Novartis is responsible for development and commercialization of these programs. We are eligible to receive up to $250.0 million in milestone payments for each program which includes $50.0 million in development milestones, $100.0 million in regulatory milestones, and $100.0 million in sales milestones and royalties in the mid-single digit percent range on net sales of approved products. We completed delivery of one bispecific antibody candidate in 2017 and a second bispecific antibody candidate in 2018. In December 2019, Novartis dosed the first patient in a Phase 1 study of an undisclosed bispecific antibody candidate, and we received a $10.0 million milestone payment.

We have the right to participate in the development and commercialization of one of these programs prior to submission of an IND for such program. If we elect to participate in development, we will assume 25% of the worldwide development costs for the program and 50% of commercialization costs and will receive 50% of the U.S. profits on net sales of the product.

Technology Licensing Agreements

We enter into technology licensing agreements in which we license access to one or more of our XmAb Fc technologies on a restricted basis, typically to our XmAb Cytotoxic Fc Domain and/or our Xtend Fc Domain. Our partners are responsible for all research, development and commercialization activities of the drug candidates. The plug-and-play nature of XmAb technologies allows us to license access to our platforms with no internal research and development activities required of us.

Alexion Pharmaceuticals, Inc.

Ultomiris® (ravulizumab-cwvz) was the first antibody incorporating XmAb Fc technology to be approved by the U.S. FDA for commercial marketing. It is approved in the U.S., Europe and Japan for the treatment of adult patients with paroxysmal nocturnal hemoglobinuria (PNH) and for the treatment of patients with atypical hemolytic uremic syndrome (aHUS). Ultomiris is commercialized by Alexion Pharmaceuticals, Inc.

In 2013, we licensed Alexion the right to access our Xtend Fc domain, which Alexion used to develop an improved version of Alexion's commercialized Soliris product. The Xtend technology increased the circulating half-life of Ultomiris by over three-fold compared to Soliris and extended the dosing schedule to bimonthly for Ultomiris compared to biweekly for Soliris. During 2020, we received a $10.0 million sales milestone payment and recorded royalty revenue of $16.2 million. We are eligible to receive an additional $20.0 million in sales milestones and a low-single digit percent royalty on the sale of approved products.

Vir Biotechnology, Inc.

In August 2019, we entered into an agreement with Vir Biotechnology, Inc., in which we provided Vir a non-exclusive license to our Xtend technology for two targets in infectious disease. We received an upfront payment, and we are eligible to receive total milestones of $155.0 million, including $5.0 million of development milestones, $30.0 million of regulatory milestones and $120.0 million of sales milestones. We are also eligible to receive royalties on the net sales in the low single digit percentage range. Vir has advanced two programs under this agreement. VIR-2482 is being evaluated in a Phase 1/2 study as a universal prophylactic for influenza A, and VIR-3434 is being evaluated in a Phase 1 study as a potential treatment for patients with hepatitis B virus infection.

In March 2020, we entered into a second agreement in which we provided Vir a non-exclusive license to our Xtend technology to extend the half-life of novel antibodies Vir is investigating as potential treatments or for patients with COVID-19. Vir is responsible for all research, development, regulatory and commercial activities for COVID-19 antibodies, and we are eligible to receive royalties on the net sales of approved products in the mid-single digit

percentage range. Vir is currently conducting Phase 3 studies of VIR-7831 as a potential treatment for the treatment of COVID-19.

Gilead Sciences, Inc.

In January 2020, we entered into an agreement with Gilead Sciences, Inc., in which we provided Gilead an exclusive license to our Cytotoxic Fc and Xtend Fc technologies for an initial identified antibody and options for up to three additional antibodies, all broadly neutralizing anti-HIV antibodies. Gilead has exercised its options for all three additional antibodies. Gilead is responsible for all development and commercialization activities. During 2020, we received upfront and option payments of $13.5 million, and for each of four antibodies, we are eligible to receive up to $67.0 million in milestones, which includes $10.0 million in development milestones, $27.0 million in regulatory milestones and $30.0 million in sales milestones. We are also eligible to receive royalties in the low-single digit percentage range on net sales of approved products. Gilead has advanced antibodies, including elipovimab (GS-9722) and GS-9723, into clinical studies.

Omeros Corporation

In August 2020, we entered into an agreement with Omeros Corporation, in which we provided Omeros a non-exclusive license to our Xtend Fc technology, an exclusive license to apply our Xtend Fc technology to an initial identified antibody and options to apply our Xtend Fc technology to three additional antibodies. Omeros is responsible for all development and commercialization activities. We received an upfront payment of $5.0 million, and for each product incorporating our Xtend Fc technology, we are eligible to receive up to $65.0 million in milestones, which includes $15.0 million in development milestones, $25.0 million in regulatory milestones and $25.0 million in sales milestones. We are also eligible to receive royalties in the mid-single digit percentage range on net sales of approved products.

Viridian Therapeutics, Inc./MiRagen Therapeutics, Inc.

In December 2020, we entered into an agreement with MiRagen Therapeutics, Inc., in which we provided MiRagen a non-exclusive license to our Xtend Fc technology and an exclusive license to apply our Xtend Fc technology to antibodies targeting IGF-1R. MiRagen subsequently changed its name to Viridian Therapeutics, Inc. Viridian is responsible for all development and commercialization activities. We received an upfront payment of 322,407 shares of Viridian common stock valued at $6.0 million and are eligible to receive up to $55.0 million in milestones, which include $10.0 million in development milestones, $20.0 million in regulatory milestones and $25.0 million in sales milestones. We are also eligible to receive royalties in the mid-single digit percentage range on net sales of approved products.

Catabasis Pharmaceuticals, Inc./Quellis Biosciences, Inc.

In May 2018, we entered into an agreement with Quellis Biosciences, Inc., in which we provided Quellis a non-exclusive license to our Xtend Fc technology to apply to an identified antibody. Quellis is responsible for all development and commercialization activities. We received an equity interest in Quellis, and in January 2021, upon Quellis merging into Catabasis Pharmaceuticals, Inc., we received common and preferred shares of Catabasis stock in exchange for our equity in Quellis. We are eligible to receive up to $66.0 million in milestones, which include $6.0 million in development milestones, $30.0 million in regulatory milestones and $30.0 million in sales milestones. We are also eligible to receive royalties in the mid-single digit percentage range on net sales of approved products.

Strategic Collaborations

We enter into strategic collaborations where we can create synergies between our partners' capabilities and assets and our own protein engineering capabilities, XmAb technologies and XmAb drug candidates. Through these arrangements we seek to create new drug candidates, investigate novel combination therapies and potentially identify additional indications for our portfolio of XmAb drug candidates.

MorphoSys AG

In November 2020, we entered into an agreement with MorphoSys AG to conduct clinical studies to investigate the combination of plamotamab and tafasitamab in combination with lenalidomide in patients with relapsed or refractory diffuse large B-cell lymphoma (DLBCL), first-line DLBCL, and relapsed or refractory follicular lymphoma (FL). MorphoSys and Incyte Corporation will provide tafasitamab for the studies, which Xencor will sponsor and fund. We plan to initiate a Phase 1/2 study evaluating the combination in patients with relapsed or refractory DLBCL in the second half of 2021.

Atreca, Inc.

In July 2020, we entered into an agreement with Atreca, Inc., to research, develop and commercialize novel CD3 bispecific antibodies as potential therapeutics in oncology. During a three-year research term, Atreca will provide antibodies against novel tumor targets through its discovery platform from which we will engineer XmAb bispecific antibodies that bind to the CD3 receptor on T cells. The two companies will share research costs equally during the research term. Up to two joint programs are eligible to be mutually selected for further development and commercialization, with each partner sharing 50% of costs and profits. Each company has the option to lead development, regulatory and commercialization activities for one of the joint programs. In addition, each partner has the option to pursue up to two programs independently, with a royalty in the mid- to high-single digit percentage range payable on net sales to the other partner.

The University of Texas MD Anderson Cancer Center

In September 2020, we entered into an agreement with MD Anderson, in which we will provide funding over a five-year period, and MD Anderson will collaborate to design and execute additional clinical studies with our portfolio of XmAb drug candidates, including novel bispecific antibody and cytokine candidates. We own all rights to the programs and results generated from these studies.

In December 2020, we entered into a second agreement with MD Anderson to develop novel CD3 bispecific antibody therapeutics for the potential treatment of patients with cancer. MD Anderson will work to identify and develop potential antibodies, and we will apply its our Fc bispecific technology to create therapeutic candidates. MD Anderson will then conduct and fund all preclinical activities to advance candidates toward clinical studies. We have certain exclusive options to license worldwide rights to develop and commercialize potential new medicines arising from the collaboration.

Our Research and Development Pipeline

We have used our XmAb Fc platforms and protein engineering capabilities to produce a growing pipeline of drug candidates in clinical and preclinical development. These include multiple oncology candidates using our bispecific Fc domain, including bispecific antibody and cytokine candidates. We continue to advance these candidates as additional options for clinical development by us or as out-licensing opportunities. We also from time to time in-license antibody technologies and compounds from other companies which we believe may allow us to create potential product candidates by incorporating our XmAb technology. These licenses may require us to pay upfront fees, development and commercial milestone payments, and if commercial products are approved, royalties on net sales.

Human Capital Management

Our Employees and Commitment to Diversity, Equity, and Inclusion

Our ability to develop XmAb technologies, advance our programs into late-stage development, position our programs for commercialization and identify successful business partnerships is dependent on attracting, retaining, and developing our employees. We seek and support a diverse population of employees without regard to race, gender or sexual orientation. As of December 31, 2020, we had 202 full-time employees, representing a 22% increase in our employee workforce as compared to December 31, 2019. Of these, 156 were engaged in research and development

activities, and 46 are engaged in business development, information systems, facilities, human resources or administrative support. Of these employees, 42 hold Ph.D. degrees, and 6 hold M.D. degrees. None of our employees are represented by any collective bargaining unit. We believe we maintain good relations with our employees.

We are an equal opportunity employer and maintain policies that prohibit unlawful discrimination based on race, color, religion, gender, sexual orientation, gender identity/expression, national origin/ancestry, age, disability, marital and veteran status. We are proud to employ a diverse workforce that, as December 31, 2020, was 53% non-white and 55% women. In addition, as of December 31, 2020, women made up 22% of our senior leadership team. We strive to build and nurture a culture where all employees feel empowered to be their authentic selves.

We seek to provide human capital policies that provide for the health, safety and welfare of our employees as well as professional development and training. In 2020 in connection with the ongoing pandemic we implemented the following policies:

- Instituted a remote work mandate for all non-laboratory staff and provided technical support and training to enable employees to continue to perform their responsibilities while working remotely;

- Implemented onsite safety procedures for all laboratory staff which includes mandatory weekly onsite SARS-CoV-2 virus testing for all laboratory employees and their household members, reimbursement of 100% of medical insurance costs for all onsite employees, and fully paid time off for any employee that missed time due to the COVID-19 virus including for the care of family members; and

- Provided additional compensation for onsite employees and provided additional days off for all employees.

We provide compensation packages designed to attract and retain high-quality employees, and all of our employees are eligible for cash bonuses and grants of equity awards. We regularly evaluate our compensation programs with an independent compensation consultant and utilize industry benchmarking in an effort to ensure they are competitive compared to similar biotechnology and biopharmaceutical companies with which we compete for talent and that they are fair and equitable across our workforce with respect to gender, race, and other personal characteristics. In addition, we provide a variety of programs and services to help employees meet and balance their needs at work, at home and in life, including an attractive mix of healthcare, insurance, and other benefit plans. We deliver a benefits program that is designed to keep our employees and their families healthy, which includes not only medical, dental and vision benefits, but also dependent care, mental health, and other wellness benefits.

- We also value career development for all employees, and we provide reimbursement and time for employees to attend professional development courses ranging from technical training, competency-based workshops and leadership development programs facilitated by external partners who are experts in their respective fields. Direct managers also take an active role in identifying individualized development plans to assist their employees in realizing their full potential and creating opportunities for promotions and added responsibilities that enhance the engagement and retention of our workforce.

Market Opportunity

Our drug candidates that use the XmAb bispecific Fc domain, including plamotamab, XmAb717, vibecotamab, tidutamab, XmAb841, XmAb104 and XmAb306: We are developing our bispecific antibody and cytokine candidates to treat cancer. Cancer is a broad group of diseases in which cells divide and grow in an uncontrolled fashion, forming malignancies that can invade other parts of the body, and it is the second leading cause of death in the United States (U.S.). The American Cancer Society estimates that in 2021 there will be approximately 1.9 million new cases of cancer and approximately 608,570 deaths from cancer. The National Institutes of Health (NIH) estimated that based on growth and aging of the U.S. population, medical expenditures for cancer in the year 2020 were projected to reach at least $158.0 billion (in 2010 dollars).

Intellectual Property

The foundation for our XmAb technology and our product candidates and partnering is the generation and protection of intellectual property for novel antibody and cytokine therapeutics. We combine proprietary computational methods for amino acid sequence design with laboratory generation and testing of new antibody and cytokine compositions. Our design and engineering team prospectively assesses, with patent counsel, the competitive landscape with the goal of building broad patent positions and avoiding third-party intellectual property.

As a pioneer in Fc domain engineering, we systematically scanned the structure of the Fc domain to discover Fc variants. We have filed patent applications relating to thousands of specific Fc domain variants with experimental data on specific improvements of immune function, pharmacokinetics, structural stability, and novel structural constructs. We have filed additional patent applications derived from these applications as we discover new properties of the Fc variants and as new business opportunities arise. We continually seek to expand the intellectual property coverage of our technology and candidates and invest in discovering new Fc domain technologies, antibody product candidates, and cytokine product candidates.

Our patent estate, on a worldwide basis, includes over 1,000 issued patents and pending patent applications which we own, with claims directed to XmAb Fc domains, all of our clinical and preclinical stage product candidates and our computational protein design methods and platforms. We also have a large number of issued patents and pending patent applications with claims directed specifically to our XmAb technology and candidates.

The patent expiration in the U.S. and major foreign countries (ex-U.S.) for our key technologies and drug candidates is set forth below. We have pending applications filed that may extend the exclusivity of some of our technology and products:

Technology	Patent Expiry
Cytotoxic	2025 U.S.; 2024 Ex-U.S.
Immune Inhibitor	2028 U.S.; 2025 Ex-U.S.
Xtend	2025 U.S.; 2028 Ex-U.S.
Bispecific	2034 U.S. and Ex-U.S.
CD3 T Cell Engagers	2035 U.S. and Ex-U.S.
CD28 T Cell Engagers	2040 U.S. and Ex-U.S.

Company Products	Patent Expiry
Obexelimab (XmAb5871)	2029 U.S.; 2028 Ex-U.S.
Plamotamab	2035 U.S. and Ex-U.S.
Vibecotamab	2035 U.S.; 2036 Ex-U.S.
Tidutamab	2037 U.S. and Ex-U.S.
XmAb717, XmAb841, XmAb104	2037 U.S. and Ex-U.S.
XmAb564	2038 U.S. and Ex-U.S.
XmAb819	2040 U.S. and Ex-U.S.
XmAb306	2038 U.S.; 2037 Ex-U.S.

Partnered Products	Patent Expiry
Monjuvi (tafasitamab)	2029 U.S.; 2027 Ex-U.S.
Ultomiris	2025 U.S.; 2028 Ex-U.S.
AIMab7195 (XmAb7195)	2029 U.S. and Ex-U.S.

The Hatch-Waxman Act permits a patent term extension for FDA-approved drugs, including biological products, of up to five years beyond the expiration of the patent. The length of the patent term extension is related to the length of time the drug is under regulatory review. Patent extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval and only one patent applicable to an approved drug may be extended. Similar provisions are available in Europe and other jurisdictions to extend the term of a patent that covers an approved drug. In the future, if and when our pharmaceutical product candidates receive FDA approval, we expect to apply for patent term extensions on patents covering those products. We intend to seek patent term extensions to any of our issued patents in any jurisdiction where these are available, however there is no guarantee that the applicable authorities, including the FDA in the United States, will agree with our assessment of whether such extensions should be granted, and even if granted, the length of such extensions.

The Patient Protection and Affordable Care Act, as amended by the Healthcare and Education Affordability Reconciliation Act (collectively the ACA) created a regulatory scheme authorizing the FDA to approve biosimilars via an abbreviated licensure pathway. In many cases, this allows biosimilars to be brought to market without conducting the full suite of clinical trials typically required of originators. Under the ACA, a manufacturer may submit an application for licensure of a biologic product that is "biosimilar to" or "interchangeable with" a previously approved biological product or "reference product." The "biosimilar" application must include specific information demonstrating biosimilarity based on data derived from: (1) analytical studies, (2) animal studies, and (3) a clinical study or studies that are sufficient to demonstrate safety, purity, and potency in one or more appropriate conditions of use for which the reference product is licensed, except that FDA may waive some of these requirements for a given application. Under this new statutory scheme, an application for a biosimilar product may not be submitted to the FDA until four years after the date of first licensure. The FDA may not approve a biosimilar product until 12 years from the date on which the reference product was first licensed. The law does not change the duration of patents granted on biological products. Even if a product is considered to be a reference product eligible for exclusivity, another company could market a competing version of that product if the FDA approves a full Biologics License Application (BLA) for such product containing the sponsor's own preclinical data and data from adequate and well-controlled clinical trials to demonstrate the safety, purity, and potency of their product. There have been recent proposals to repeal or modify the ACA and it is uncertain how any of those proposals, if approved, would affect these provisions.

In addition to patent protection, we rely on trade secret protection and know-how to expand our proprietary position around our technology and other discoveries and inventions that we consider important to our business. We seek to protect this intellectual property in part by entering into confidentiality agreements with our employees, consultants, scientific advisors, clinical investigators, and other contractors and also by requiring our employees, commercial contractors, and certain consultants and investigators, to enter into invention assignment agreements that grant us ownership of certain discoveries or inventions made by them.

Further, we seek trademark protection in the United States and in certain other jurisdictions where available and when we deem appropriate. We have obtained registrations for the Xencor trademark, as well as certain other trademarks, which we use in connection with our pharmaceutical research and development services and our clinical-stage products, including XmAb, PDA, Protein Design Automation, Proteins By Design and Antibodies By Design. We currently have registrations for Xencor and PDA in the United States, Australia, Canada, the European Community, and Japan, for Protein Design Automation in the United States, Australia, Canada and the European Community, and for XmAb in the United States, Australia, Canada, the European Community and Japan.

Third Party Vendors and Suppliers

Our internal research activities are focused on early research stage and preclinical activities and studies. We rely on third party vendors, suppliers and contractors for all other research, development and clinical activities. We are able to internally manufacture the quantities of our product candidates required for relatively short preclinical animal studies. We believe that this allows us to accelerate the drug development process by not relying on third parties for all of our manufacturing needs. We have adopted a manufacturing strategy of contracting with third parties in accordance with current good manufacturing practices (cGMPs) for the manufacture of drug substance and product, including our pipeline of bispecific antibody and cytokine development candidates and also our obexelimab development candidate. We have used third party manufacturers for all our bispecific antibody and cytokine candidates which include:

vibecotamab, plamotamab, tidutamab, XmAb717, XmAb841, XmAb104, XmAb306, and XmAb564. Additional contract manufacturers are used to fill, label, package and distribute investigational drug products. This allows us to maintain a more flexible infrastructure while focusing our expertise on developing our products. Obexelimab is produced by mammalian cell culture of a Chinese hamster ovary cell line that expresses the antibody, followed by multiple purification and filtration steps typical of those used for monoclonal antibodies. We do not have any long-term manufacturing agreements in place and will ultimately depend on contract manufacturers for the manufacture of our products for commercial sale, as well as for process development. We have successfully completed clinical trials with subcutaneous formulations for obexelimab which have been manufactured with third party contract manufacturers. In February 2020, we entered into a License, Development and Commercialization Agreement for XmAb7195 (Aimmune Agreement) with Aimmune Therapeutics, Inc. (Aimmune). Under the Aimmune Agreement, Aimmune will assume all future manufacturing of XmAb7195.

KBI Biopharma, Inc.

In July 2014, we entered into a master services agreement (KBI Agreement) with KBI Biopharma, Inc. (KBI). We have engaged KBI under the KBI Agreement for process development, clinical scale-up, analytical method development, formulation development, and other services related to drug substance and drug product for our bispecific antibody and cytokine development candidates: vibecotamab, plamotamab, tidutamab, XmAb717, XmAb841, XmAb104, XmAb306, and XmAb564 in accordance with cGMP regulations. For each bispecific program, we have entered into a separate agreement with the terms and conditions of services and payment. The KBI Agreement is for a three-year term but is automatically extended on an annual basis until the services are completed. The KBI Agreement may be terminated by either party for a breach that is not remedied within 30 days after notice or 60 days after notice of the existence of an incurable scientific or technical issue that renders KBI unable to render services under the KBI Agreement, by after 60-day notice, or in the event of a bankruptcy of a party. For termination other than a material breach by KBI, we must pay for all services conducted prior to the termination and to wind down the activities.

Cell Line Agreements with Selexis

In December 2015, we entered into a master service agreement (Selexis Agreement) with Selexis SA (Selexis) for the manufacture of Selexis cell lines. Under the terms of the Selexis Agreement, Selexis will manufacture cell lines for the antibody candidates provided by us and upon completion of the cell lines, we have the option to take an unrestricted commercial license to the cell line. The terms of each commercial license require us to make payments upon achievement of certain development and regulatory milestones and we will also pay royalties based on a percentage of net sales for products that are derived from or utilize the Selexis cell line. The royalty is less than 1%.

Selexis has manufactured cell lines for all our bispecific antibody and cytokine drug candidates, and we currently have commercial licenses to the Selexis cell line for the following bispecific antibody and cytokine candidates: vibecotamab, plamotamab, tidutamab, XmAb717, XmAb841, XmAb104, XmAb306 and XmAb564.

License Agreements with BIO-TECHNE

In February 2015, we entered into a license agreement with BIO-TECHNE Corporation (BIO-TECHNE) for a non-exclusive license to certain antibody technology including monoclonal antibodies which recognize human somatostatin receptor 2 (SSTR2). The variable domain of this antibody is incorporated in our tidutamab drug candidate. Under the terms of this agreement, we made an upfront payment and are obligated to make payments upon the achievement of certain development and regulatory milestones, and royalties based on a percentage of net sales from products that are derived from the tidutamab program. The royalty is less than 1%.

We entered into a second agreement with BIO-TECHNE effective February 2018 for a non-exclusive license to a certain recombinant monoclonal antibody reactive with human programmed death protein, PD-1 antibody. We expect to use this protein in certain of our oncology drug candidates. Under the terms of this agreement, we made an upfront payment and are obligated to make payments upon the achievement of certain development, regulatory and sales milestones, and royalties based on a percentage of net sales from products that are derived from the PD-1 antibody. The royalty is 1%.

Umbrella Development Services Agreement with Patheon Biologics LLC

In September 2018, we entered into an Umbrella Development Services Agreement (Patheon Agreement) with Patheon Biologics LLC (Patheon). Under the terms of the Patheon Agreement, any of the affiliates within the global network of service sites in Thermo Fisher Scientific Inc.'s Pharma Services Group may perform clinical manufacturing and development services for us in accordance with cGMP regulations. The Patheon Agreement includes a statement of work for Patheon to provide process transfer, process development and cGMP manufacturing to support our obexelimab program. The Patheon Agreement may be terminated by either party for a breach or default that is not remedied within 30 days, or such other time period as may be reasonably necessary to remedy such breach after receiving notice of the breach from the non-breaching party or if the other party is subject to an insolvency event. We have the unilateral right to terminate the Patheon Agreement upon 30 days written notice to Patheon for any business reason, subject to cancellation fees. Patheon has the unilateral right to terminate the Patheon Agreement if we request to reschedule work beyond 120 days, the project work is not progressing according to our expectations and we cannot agree on appropriate changes, after six months of inactivity on a project at our request or if Patheon determines it is unable to perform its obligations in a safe and effective way in compliance with applicable regulatory requirements.

Patheon is currently conducting process transfer, process development and cGMP manufacturing for our obexelimab program and process development and cGMP manufacturing for our XmAb819 program.

Competition

We compete in an industry that is characterized by rapidly advancing technologies, intense competition, and a strong emphasis on proprietary products. Our competitors include pharmaceutical companies, biotechnology companies, academic institutions, and other research organizations. We compete with these parties for promising targets for antibody-based therapeutics, new technology for optimizing antibodies and cytokines, and in recruiting highly qualified personnel. Many competitors and potential competitors have substantially greater scientific, research, and product development capabilities as well as greater financial, marketing and sales, and human resources than we do. In addition, many specialized biotechnology firms have formed collaborations with large, established companies to support the research, development, and commercialization of products that may be competitive with ours. Accordingly, our competitors may be more successful than we may be in developing, commercializing, and achieving widespread market acceptance. In addition, our competitors' products may be more effective, more effectively developed, or more effectively marketed and sold than any treatment we or our development partners may commercialize, which may render our product candidates obsolete or noncompetitive before we can recover the expenses related to developing and commercializing any of our product candidates.

Competition in the field of cancer drug development is intense, with hundreds of compounds in clinical trials. Many large pharmaceutical companies and other smaller biotechnology companies are developing competing bispecific antibody platforms, and many of these companies have advanced multiple drug candidates into clinical development, including Amgen Inc.; Genmab A/S; Macrogenics, Inc.; Merus N.V.; Regeneron Pharmaceuticals, Inc.; Roche Holding AG; and Zymeworks Inc.

We are developing bispecific antibody drug candidates engineered to direct cytotoxic T cell killing of tumor cells, by engaging the CD3 receptor on T cells and an antigen on tumor cells. Regarding plamotamab, other companies developing CD3 bispecific antibodies directed to CD20, an antigen expressed on many blood tumors, include AbbVie Inc. and Genmab A/S; IGM Biosciences, Inc.; Regeneron Pharmaceuticals, Inc.; and Roche Holding AG. Other antibodies, antibody drug candidates and cell therapies are in development or approved to treat patients with non-Hodgkin lymphomas. Regarding vibecotamab, other companies developing CD3 bispecific antibodies directed to CD123, an antigen expressed on myeloid tumors, include Aptevo Therapeutics Inc. and Macrogenics, Inc.

We are also developing several bispecific antibody drug candidates engineered to selectively engage the immune system in order to treat patients with cancer, such as XmAb717, XmAb841 and XmAb104. Immuno-oncology is a competitive field within the biotechnology and pharmaceutical industries, and most large pharmaceutical companies are developing drug candidates, have marketed medicines in this space, or both: AstraZeneca plc; Bristol-Myers Squibb Company; GlaxoSmithKline plc; Merck & Co., Inc.; Novartis AG; Pfizer Inc.; Roche Holding AG; and Sanofi S.A.

While tuning the binding affinities plays a crucial role in designing the mechanism of action for this class of bispecific antibody, smaller companies advancing clinical programs that, like XmAb717, dually target the immune checkpoint receptors PD-1 and CTLA-4 include Akeso, Inc. and Macrogenics, Inc.

Several companies are developing engineered cytokines intended to activate specific immune cell populations in order to treat patients with cancer and/or autoimmune diseases, including Alkermes plc; Amgen Inc.; Cue Biopharma, Inc.; Cytune Pharma; Eli Lilly and Company; IGM Biosciences, Inc.; ImmunityBio, Inc.; Kadmon Holdings, Inc.; Medicenna Therapeutics Corp.; Nektar Therapeutics, Inc.; Neoleukin Therapeutics, Inc.; Novartis AG; Pandion Therapeutics, Inc.; Roche Holding AG; Sanofi S.A.; Sutro Biopharma, Inc.; and Xilio Therapeutics, Inc.

In addition, we are aware of a number of other companies with development stage programs that may compete with the drug candidates we and our licensees are developing in the future. We anticipate that we will face intense and increasing competition as new treatments enter the market and advanced technologies become available.

Regulatory Overview

Our business and operations are subject to a variety of U.S. federal, state and local and foreign supranational, national, provincial and municipal laws, regulations and trade practices. The FDA and comparable regulatory authorities in state and local jurisdictions and in other countries impose substantial and burdensome requirements upon companies involved in the clinical development, manufacture, marketing, and distribution of drugs and biologics. These agencies and other federal, state and local entities regulate research and development activities and the testing, manufacture, quality control, safety, effectiveness, labeling, storage, recordkeeping, approval, advertising and promotion, and export and import of our product candidates.

U.S. Government Regulation

We are subject to extensive regulation by the U.S. and other countries. Regulation by government authorities is a significant factor in the development, manufacture, distribution and ongoing research activities. All our products in development will require regulatory approval by government agencies prior to commercialization. In particular, drugs and biologic products are subject to rigorous preclinical studies and clinical trials and other approval procedures of the FDA and similar regulatory authorities in foreign countries. The process of obtaining these approvals and the subsequent compliance with appropriate federal and state statutes and regulations require the expenditure of substantial time and financial resources. Various federal and state statutes and regulation also govern or influence testing, manufacturing, safety, labeling, storage, tracking, tracing and record-keeping of drugs and biologic products and their marketing.

U.S. Drug Development Process

In the United States, the FDA regulates drugs and biologic products under the Federal Food, Drug and Cosmetic Act (FDCA), its implementing regulations, and other laws including, in the case of biologics, the Public Health Service Act. Our product candidates are subject to regulation by the FDA as a biologic. Biologics require the submission of a BLA to the FDA and approval of the BLA by the FDA before marketing in the United States. The process of obtaining regulatory approvals for commercial sale and distribution and the subsequent compliance with applicable federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources. Failure to comply with the applicable requirements at any time during the product development process, approval process or after approval, may subject an applicant to administrative or judicial civil or criminal sanctions. These sanctions could include the FDA's refusal to approve pending applications, license suspension or revocation, withdrawal of an approval, imposition of a clinical hold on clinical trials, warning letters, product recalls, product seizures, total or partial suspension of production, or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement or civil and/or criminal penalties. The process required by the FDA before a biologic may be marketed in the United States generally involves the following:

1. completion of preclinical laboratory tests, animal studies, and formulation studies performed in accordance with the FDA's current Good Laboratory Practices (GLP) regulations;

2. submission to and acceptance by the FDA of an IND which must become effective before human clinical trials in the United States may begin;

3. performance of adequate and well-controlled human clinical trials in accordance with the FDA's current good clinical practices (GCP) regulations to establish the safety and efficacy of the product candidate for its intended use;

4. submission to and acceptance by the FDA of a BLA;

5. satisfactory completion of an FDA inspection (if the FDA deems it as a requirement) of the manufacturing facility or facilities where the product is produced to assess compliance with the FDA's cGMP regulations to assure that the facilities, methods, and controls are adequate to preserve the product's identity, strength, quality, and purity;

6. potential audits by the FDA of the nonclinical and clinical trial sites that generated the data in support of the BLA;

7. potential review of the BLA by an external Advisory Committee to the FDA, whose recommendations are not binding on the FDA; and

8. FDA review and approval of the BLA prior to any commercial marketing or sale.

Before testing any compounds with potential therapeutic value in humans, the product candidate enters the preclinical testing stage. Preclinical tests include laboratory evaluations of product chemistry, stability, and formulation, as well as animal studies to assess the potential toxicity and activity of the product candidate. Clinical trials involve the administration of the product candidate to human patients under the supervision of qualified investigators, generally physicians not employed by or under the clinical trial sponsor's control. Clinical trials are conducted under protocols detailing, among other things, the objectives of the clinical trial, dosing procedures, subject selection and exclusion criteria, and the parameters to be used to monitor subject safety and effectiveness. The FDA or responsible Institutional Review Board may place a trial on hold at any time related to perceived risks to patient safety. Phases of clinical development include:

1. *Phase 1.* The product candidate is initially introduced into a limited population of healthy human subjects, or in some cases, patients with the disease for which the drug candidate is intended, and tested for safety, dosage tolerance, absorption, metabolism, distribution, and excretion. In the case of some products for some diseases, or when the product may be too inherently toxic to ethically administer to healthy volunteers, the initial human testing is often conducted in patients with the disease or condition for which the product candidate is intended to gain an early indication of its effectiveness.

2. *Phase 2.* The product candidate is evaluated in a limited patient population (but larger than in Phase 1) to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted indications, and to assess dosage tolerance, optimal dosage, and dosing schedule.

3. *Phase 3.* Clinical trials are undertaken to further evaluate dosage and provide substantial evidence of clinical efficacy and safety in an expanded patient population (such as several hundred to several thousand) at geographically dispersed clinical trial sites. Phase 3 clinical trials are intended to establish the overall risk/benefit ratio of the product and provide an adequate basis for product labeling. Generally, two adequate and well-controlled Phase 3 clinical trials are required by the FDA for approval of a BLA.

4. *Post Approval.* Clinical trials or other post-approval commitments may be conducted after initial marketing approval. These studies are used to gain additional experience from the treatment of patients in the intended therapeutic indication and may be required by the FDA as a condition of approval.

Concurrent with clinical trials, companies usually complete additional animal studies and must also develop additional information about the chemistry and physical characteristics of the biologic and finalize a process for manufacturing the product in commercial quantities in accordance with cGMP requirements.

U.S. Review and Approval Processes

The results of product development, preclinical studies and clinical trials, along with descriptions of the manufacturing process, analytical tests, proposed labeling, and other relevant information are submitted to the FDA in the form of a BLA requesting approval to market the product for one or more specified indications. The standard time for the FDA to accept a BLA submission is two months.

If the FDA determines that the BLA is substantially complete, it will accept the BLA for review.

Once accepted, the FDA reviews the BLA to determine, among other things, whether the proposed product is safe and effective for its intended use, and whether the product is being manufactured in accordance with cGMP to assure and preserve the product's identity, strength, quality, and purity, and it may inspect the manufacturing facilities to assure cGMP compliance and clinical sites used during the clinical trials to assure cGMP compliance. The standard FDA review process is 10 months once a BLA is accepted for review, but it can take longer. During the review process, the FDA also will determine whether a risk evaluation and mitigation strategy (REMS) is necessary to assure the safe use of the product. If the FDA concludes a REMS is needed, the sponsor of the BLA must submit a proposed REMS prior to approval. A REMS can substantially increase the costs of obtaining approval. In addition, under the Pediatric Research Equity Act, a BLA or supplement to a BLA must contain data that are adequate to assess the safety and effectiveness of the product for the claimed indications in all relevant pediatric subpopulations, and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The FDA may, on its own initiative or at the request of the applicant, grant deferrals for submission of some or all pediatric data until after approval of the product for use in adults, or full or partial waivers from the pediatric data requirements.

The FDA will issue a complete response letter describing deficiencies in the BLA and recommend actions if the agency decides not to approve the BLA. The applicant will have to address all of the deficiencies which could take substantial time to address.

If the product receives regulatory approval, the approval may be significantly limited to specific diseases and dosages, or the indications for use may otherwise be limited and may require that certain contraindications, warnings, or precautions be included in the product labeling. In addition, the FDA may require post marketing studies, sometimes referred to as Phase 4 testing, which involves clinical trials designed to further assess drug safety and effectiveness and may require testing and surveillance programs to monitor the safety of approved products that have been commercialized.

Post-Approval Requirements

Any biologic products for which we or our collaborators receive FDA approvals are subject to continuing regulation by the FDA, including, among other things, cGMP compliance for product manufacture, record-keeping requirements, reporting of adverse experiences with the product, providing the FDA with updated safety and efficacy information, product sampling and distribution requirements, complying with certain electronic records and signature requirements, and complying with FDA promotion and advertising requirements, which include, among others, restrictions on direct-to-consumer advertising, promoting biologics for uses or in patient populations that are not described in the product's approved labeling (known as "off-label use"), industry-sponsored scientific and educational activities, and promotional activities involving the internet. Failure to comply with these or other FDA requirements can subject a manufacturer to possible legal or regulatory action, such as product reclass, warning letters, suspension of manufacturing, seizure of product, injunctive action, mandated corrective advertising or communications with healthcare professionals, possible civil or criminal penalties, or other negative consequences, including adverse publicity.

U.S. Patent Term Restoration and Marketing Exclusivity

Depending upon the timing, duration and specifics of the FDA approval of any of our biologic product candidates, we may apply for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, commonly referred to as the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent restoration term of up to five years for one patent per product as compensation for patent term lost during product development and the FDA regulatory review process of that product. The U.S. Patent and Trademark Office, in consultation with the FDA, reviews and approves the application for any patent term extension or restoration.

Market exclusivity provisions under the FDCA can also delay the submission or the approval of certain applications of other companies seeking to reference another company's BLA. Specifically, the Biologics Price Competition and Innovation Act established an abbreviated pathway for the approval of biosimilar and interchangeable biological products generally not earlier than 12 years after the original BLA approval. The abbreviated regulatory pathway establishes legal authority for the FDA to review and approve biosimilar biologics, including the possible designation of a biosimilar as "interchangeable" based on their similarity to existing brand product.

Pharmaceutical Coverage, Pricing and Reimbursement

The cost of pharmaceuticals continues to generate substantial governmental and third-party payor interest. We expect that the pharmaceutical industry will experience pricing pressures due to the trend toward managed healthcare, the increasing influence of managed care organizations and additional legislative proposals.

Healthcare Reform

In the United States and foreign jurisdictions, there have been and will continue to be a number of legislative and regulatory proposals to change the healthcare system in ways that could affect our ability to sell our product candidates profitably, once they are approved for sale. Among policy makers and payors in the United States and elsewhere, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality and/or expanding access. In the United States, the pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by major legislative initiatives.

Other Healthcare Laws and Compliance Requirements

In the United States, the research, manufacturing, distribution, sale and promotion of drug products and medical devices are potentially subject to regulation by various federal, state and local authorities in addition to the FDA, including the Centers for Medicare & Medicaid Services, other divisions of Health and Human Services (e.g., the Office of Inspector General), the U.S. Department of Justice, state Attorneys General, and other state and local government agencies.

Europe / Rest of World Government Regulation

In addition to regulations in the United States, we, and our collaborators, will be subject to a variety of regulations in other jurisdictions governing, among other things, clinical trials and any commercial sales, marketing and distribution of our products, similar or more stringent than the U.S. laws.

Whether or not we, or our collaborators, obtain FDA approval for a product, we must obtain the requisite approvals from regulatory authorities in foreign countries prior to the commencement of clinical trials or marketing of the product in those countries. The requirements and process governing the conduct of clinical trials, product licensing, pricing and reimbursement vary from country to country. In addition, we and our collaborators may be subject to foreign laws and regulations and other compliance requirements, including, without limitation, anti-kickback laws, false claims laws and other fraud and abuse laws, as well as laws and regulations requiring transparency of pricing and marketing information and governing the privacy and security of health information, such as the European Union's Directive 95/46 on the Protection of Individuals with regard to the Processing of Personal Data.

If we, or our collaborators, fail to comply with applicable foreign regulatory requirements, we may be subject to, among other things, fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

Corporate Information

We were incorporated in California in August 1997 under the name Xencor. In September 2004, we reincorporated in the state of Delaware under the name Xencor, Inc. Our principal offices are located at 111 West Lemon Avenue, Monrovia, CA 91016, and our telephone number is (626) 305-5900. Our website address is www.xencor.com. Our website and the information contained on, or that can be accessed through, the website will not be deemed to be incorporated by reference in and are not considered part of this Annual Report. Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to reports filed or furnished pursuant to Section 13(a) and 15(d) of the Securities Exchange Act of 1934, as amended, are available free of charge on the Investor Relations portion of our web site at www.xencor.com as soon as reasonably practical after we electronically file such material with, or furnish it to, the Securities and Exchange Commission (SEC). The SEC maintains an internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC and state the address of that site (www.sec.gov).

Item 1A. Risk Factors.

Summary of Risk Factors

We are subject to a number of risks that if realized could materially harm our business, prospects, operating results, and financial condition. Some of the more significant risks and uncertainties we face include those summarized below. The summary below is not exhaustive and is qualified by reference to the full set of risk factors set forth in this "Risk Factors" section. Please carefully consider all of the information in this Form 10-K, including the full set of risks set forth in this "Risk Factors" section, and in our other filings with the U.S. Securities and Exchange Commission before making an investment decision regarding Xencor.

We have reviewed our risk factors and categorized them into five specific categories:

1. Risks related to our unique and specific business operations as a small biotechnology company. These risks include:

    - Our success depends on our ability to use and expand our XmAb technology platform to build a pipeline of product candidates and develop marketable products. We cannot be certain our candidates will receive regulatory approval or be successfully commercialized.
    - The clinical development stage of our operations may make it difficult for you to evaluate the success of our business to date and to assess our future viability.
    - The COVID-19 pandemic and the future outbreak of other highly infectious or contagious diseases could materially and adversely impact or disrupt our business and our financial condition, results of operations, cash flows and performance.

2. Risks specifically related to our financial position, capital requirements and ownership of our common stock. These risks include:

    - We have incurred significant losses since our inception and anticipate that we will continue to incur significant losses for the foreseeable future.
    - Biopharmaceutical product development is a highly speculative undertaking and involves a substantial degree of uncertainty. We have never generated any revenue from product sales and may never be profitable.
    - We will require additional financing and may be unable to raise sufficient capital, which could lead us to delay, reduce or abandon research and development programs or commercialization.
    - The market price of our common stock is likely to be highly volatile, and you could lose all or part of

your investment.
- Our principal stockholders, directors and management own a significant percentage of our stock and will be able to exert significant control over matters subject to stockholder approval.
- Raising additional funds through debt or equity financing may be dilutive or restrict our operations and raising funds through licensing may require us to relinquish rights to our technology or product candidates.
- Future sales and issuances of our common stock or rights to purchase common stock, including pursuant to our equity incentive plans, could result in additional dilution of the percentage ownership of our stockholders and could cause our stock price to fall.

3. Risks related to our intellectual property. These risks include:

- If we are unable to obtain, maintain and enforce intellectual property protection covering our products, others may be able to make, use or sell products substantially the same as ours, which could adversely affect our ability to compete in the market.
- We have in-licensed, and may in the future in-license, a portion of our intellectual property, and, if we fail to comply with our obligations under these arrangements, we could lose such intellectual property rights or owe damages to the licensor of such intellectual property.
- We may be required to reduce the scope of our intellectual property due to third party intellectual property claims.
- Our products could infringe patents and other property rights of others, which may result in costly litigation and, if we are not successful, could cause us to pay substantial damages or limit our ability to commercialize our products, which could have a material adverse effect on our business.
- If we are not able to prevent disclosure of our trade secrets and other proprietary information, the value of our technology and products could be significantly diminished.
- If we do not obtain patent term extension and data exclusivity for any therapeutic candidates we develop, our business may be materially harmed.

4. Risks related to our dependence on third parties. These risks include:

- Our patent protection and prosecution for some of our product candidates is dependent on third parties.
- We rely on third party manufacturers for the manufacture of our XmAb engineered antibodies. This entails a complex process and manufacturers often encounter difficulties in production. If we, or any of our third-party manufacturers, encounter any loss of our master cell banks or if any of our third party manufacturers otherwise fail to comply with their contractual obligations, the development or commercialization of our product candidates could be delayed or stopped.
- Our existing partnerships are important to our business, and future partnerships may also be important to us. If we are unable to maintain any of these partnerships, or if these partnerships are not successful, our business could be adversely affected.
- We rely upon third party contractors, and service providers for the execution of most aspects of our development programs. Failure of these collaborators to provide services of a suitable quality and within acceptable timeframes may cause the delay or failure of our development programs.
- We rely on third parties to manufacture supplies of our preclinical and clinical product candidates. The development of such candidates could be stopped or delayed if any such third party fails to provide us with sufficient quantities of product or fails to do so at acceptable quality levels or prices or fails to maintain or achieve satisfactory regulatory compliance.

5. Risks related to our industry. These risks include:

- Clinical trials are expensive and take years to conduct, and the outcome of such clinical trials is uncertain. Clinical trials may fail to prove our product candidates are safe and effective. This could lead to delays, downsizing or termination of clinical development plans for any our product candidates.
- Adverse side effects or other safety risks associated with our product candidates could delay or preclude

approval, cause us to suspend or discontinue clinical trials, abandon product candidates, limit the commercial profile of an approved label, or result in significant negative consequences following marketing approval, if any.

- If we experience delays or difficulties in the enrollment of patients in clinical trials, our receipt of necessary regulatory approvals could be delayed or prevented.
- Our industry is subject to competition for skilled personnel and the challenges we face to identify and retain key personnel could impair our ability to effectively conduct and grow our operations.
- The development and commercialization of biologic products is subject to extensive regulation, and we may not obtain regulatory approvals for any of our product candidates.
- We face significant competition from other biotechnology and pharmaceutical companies and our operating results will suffer if we fail to compete effectively.
- Our current and future relationships with healthcare professionals, principal investigators, consultants, customers, and third-party payors in the United States and elsewhere may be subject, directly or indirectly, to applicable anti-kickback, fraud and abuse, false claims, physician payment transparency, health information privacy and security and other healthcare laws and regulations, which could expose us to penalties.
- Present and future legislation may increase the difficulty and cost for us to obtain marketing approval of and commercialize our product candidates and affect the prices we may obtain.
- Even if we are able to commercialize any product candidates, our product candidates may be subject to unfavorable pricing regulations, third-party coverage and reimbursement policies or healthcare reform initiatives.
- Our business involves the controlled use of hazardous materials, and as such we are subject to environmental and occupational safety laws. Continued compliance with these laws may incur substantial costs and failure to maintain compliance could result in liability for damages that may exceed our resources.

Risks Related To Our Company

Our success depends on our ability to use and expand our XmAb technology platform to build a pipeline of product candidates and develop marketable products. We cannot be certain our candidates will receive regulatory approval or be successfully commercialized.

We use our proprietary XmAb technology platform to develop engineered antibodies, with an initial focus on four properties: immune inhibition, cytotoxicity, extended half-life and most recently, heterodimeric Fc domains enabling molecules with dual target binding. This platform has led to our current pipeline of candidates as well as the other programs that utilize our technology and that are being developed by our partners and licensees. While we believe our preclinical and clinical data to date, together with our established partnerships, has validated our platform to a degree, most of the programs are in early stages of development. Although drug candidates incorporating our Fc technology, or Fc candidates, have been approved by the FDA, other product candidates have not yet been, and may never lead to, approved or marketable therapeutic antibody products. Even if we are successful in continuing to build our pipeline, the potential candidates that we identify may not be suitable for clinical development, including as a result of their harmful side effects, limited efficacy or other characteristics that indicate that they are unlikely to receive marketing approval and achieve market acceptance. If we do not successfully develop and commercialize product candidates, we may not be able to obtain product or partnership revenues in future periods, which would adversely affect our business, prospects, financial condition and results of operations.

The clinical development stage of our operations may make it difficult for you to evaluate the success of our business to date and to assess our future viability.

Our operations to date have been limited to raising capital, staffing our company, developing our proprietary XmAb technology platform, identifying potential product candidates, conducting preclinical studies and clinical trials, developing partnerships and business planning. We have conducted, or are currently conducting, early phase clinical trials for several product candidates, but have not completed any late stage clinical trials for these or any other product candidate. We have not yet demonstrated our ability to successfully complete any pivotal clinical trials, obtain regulatory

approvals, manufacture a commercial scale product, or arrange for a third party to do so on our behalf, or conduct sales and marketing activities necessary for successful product commercialization. Consequently, any predictions you make about our future success or viability may not be as accurate as they could be if we were further advanced in development of our product candidates.

In addition, we may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown factors. We believe to be successful will need to transition from a company with a research and development focus to a company capable of supporting commercial activities. We may not be successful in this transition.

We expect our financial condition and operating results to continue to fluctuate significantly from quarter to quarter and year to year due to a variety of factors, many of which are beyond our control. Accordingly, you should not rely upon the results of any quarterly or annual periods as indications of future operating performance.

The COVID-19 pandemic and the future outbreak of other highly infectious or contagious diseases, could materially and adversely impact or disrupt our business and our financial condition, results of operations, cash flows and performance.

On March 11, 2020, the World Health Organization (WHO) declared the rapid spread of COVID-19 a global pandemic, and on March 19, the Governor of the State of California, where we are headquartered and where our principal place of business is located, implemented a mandatory stay at home order for residents working in non-critical businesses.

While we have managed to maintain our operations during the COVID-19 pandemic, additional developments with this pandemic or another epidemic or pandemic, could cause significant disruptions to our business operations, business operations of our partners, on whom we rely for potential revenue, and product development collaborations; operations of our third-party manufacturers and CROs, on which we rely to conduct our clinical trials; and to our clinical trials, including as a result of significant restrictions or bans on travel into and within the countries in which our manufacturers produce our product candidates or where we conduct our clinical trials. Such disruptions could impede, delay, limit or prevent our employees and CROs from continuing research and development activities.

Although the COVID-19 pandemic has not materially affected our clinical development for the year ended December 31, 2020, certain of our clinical programs have seen slower enrollment and there have also been delays in initiating new studies as a result of the COVID-19 pandemic. These delays are not seen across all our trials and are specific to certain trials enrolling at certain sites. In the future, the COVID-19 pandemic could further adversely affect our and our partners' ability to enroll and recruit patients in current and future clinical trials. Our success is dependent on our ability and the ability of our partners to advance our wholly-owned and partnered development programs into later stages of clinical development. Many pharmaceutical and biotechnology companies have indicated that their clinical trials will be delayed and enrollment of current and ongoing trials will suffer as a result of the COVID-19 pandemic. Completion of our ongoing clinical and preclinical studies or commencement of new clinical trials could be impeded, delayed, limited or prevented by the effects of the COVID-19 pandemic and related restrictions including negative effects on the production, delivery or release of our product candidates to our clinical trial sites, as participation by our clinical trial investigators, patients or other critical staff, which to could delay data collection, analysis and other related activities, any of which could cause delay or denial of regulatory approval of our product candidates. The delay and impact on enrollment cannot be determined at this time and will depend on the length and severity of the COVID-19 pandemic. Continued delays on our clinical and preclinical studies or trials will increase our costs and expenses and seriously harm our operations and financial condition, which will adversely affect our business.

The COVID-19 pandemic could also potentially affect the business of the FDA as well as other health regulatory authorities, which could result in delays in our communications with these authorities and ultimately in the ability for us and our partners to have drug products approved.

The COVID-19 pandemic and mitigation measures also have had and may continue to have an adverse impact on global economic conditions which could have an adverse effect on our business and financial condition, including impairment of our ability to raise capital when needed. The trading prices for biopharmaceutical companies' stock, including our common shares have been highly volatile as a result of the COVID-19 pandemic. In addition, a recession, depression, or other sustained adverse market event resulting from the COVID-19 pandemic could materially and adversely affect our business and the value of our common shares.

The COVID-19 pandemic could potentially affect our partnerships and collaborations which provide us with revenue and non-dilutive payments in the form of upfront payments, milestone payments, royalties, and cost-sharing of co-development programs. If our partners' and collaborators' operations are severely affected by the COVID-19 pandemic, it will adversely affect our future potential revenue from such partners and collaborators.

We have required most of our employees, including all of our administrative employees, to work remotely, restricted on-site staff to only those employees that must perform essential activities that must be completed on-site and limited the number of staff allowed in our laboratory and offices. These changes may negatively impact productivity, or disrupt, delay, or otherwise adversely impact our business. In addition, this could increase our cyber security risk, create data accessibility concerns, and make us more susceptible to communication disruptions, any of which could adversely impact our business operations. When we reopen our facilities, we could encounter delays in connection with implementing precautionary measures to mitigate the risk of exposing our facilities and employees to COVID-19.

The COVID-19 pandemic could adversely affect our supply chain for our research, development, and clinical programs. We rely on third party vendors for research supplies, development activities including manufacturing of drug product for our clinical studies and testing of drug material. In the third quarter of 2020, several manufacturing vendors notified us of critical supply shortages which will delay the development timelines for our earlier stage development programs by three to six months. We currently do not expect these supply shortages to delay the timelines for our programs that are already in clinical studies. However, if this supply disruption extends for more than the expected three to six months, it will extend the timelines for advancing our earlier stage programs further and could also delay the current timelines for advancing our existing clinical programs. If any other vendors in our supply chain of products or services are also severely affected from the COVID-19 pandemic, it will adversely affect our ability to continue our research and development activities and also continue our clinical trial activities.

The COVID-19 pandemic continues to rapidly evolve. Its ultimate impact on our business operations is highly uncertain and subject to change that will depend on future developments, which cannot be accurately predicted, including the duration of the COVID-19 pandemic, additional or modified government actions, new information that will emerge concerning the severity and impact of COVID-19 and the actions taken to address its impact in the short and long term, among others. We do not yet know the full extent of potential delays or impacts on our business, our clinical trials, our research programs, healthcare systems or the global economy. We will continue to monitor the situation closely.

Risks Specifically Related to our Financial Position, Capital Requirements and Ownership of Our Common Stock

We have incurred significant losses since our inception and anticipate that we will continue to incur significant losses for the foreseeable future.

We are a clinical-stage biopharmaceutical company. To date, we have financed our operations primarily through equity financings and our research and development licensing agreements and have incurred significant operating losses since our inception in 1997. For the year ended December 31, 2020, we incurred a net loss $69.3 million and as of December 31, 2020, we had an accumulated deficit of $365.7 million. We expect to incur additional losses in future years as we execute our plan to continue our discovery, research and development activities, including the ongoing and planned clinical development of our antibody product candidates, and incur the additional costs of operating as a public company. We are unable to predict the extent of any future losses or when we will become profitable, if ever. Even if we do achieve profitability, we may not be able to sustain or increase profitability on an ongoing basis which would adversely affect our business, prospects, financial condition and results of operations.

Biopharmaceutical product development is a highly speculative undertaking and involves a substantial degree of uncertainty. We have never generated any revenue from product sales and may never be profitable.

We have devoted substantially all of our financial resources and efforts to developing our proprietary XmAb technology platform, identifying potential product candidates and conducting preclinical studies and clinical trials. We and our partners are still in the early stages of developing our product candidates, and we have not completed development of any of our wholly-owned products. Our revenue to date has been primarily revenue from the license of our proprietary XmAb technology platform and drug candidates for the development of product candidates by others or revenue from our partners. Our ability to generate revenue and achieve profitability depends in large part on our ability, alone or with partners, to achieve milestones and to successfully complete the development of, obtain the necessary regulatory approvals for, and commercialize and market, product candidates. We do not anticipate generating revenues from sales of our own products in the foreseeable future that will provide sufficient proceeds to fund our operations on an ongoing basis.

Our ability to generate future revenues from licensing our proprietary XmAb technologies and drug candidates depends heavily on our and our partners' success in advancing drug candidate that they have licensed from us or developed using one of our technologies. Our partners face the same development, regulatory and market risk for advancing their drug candidates and their ability to successfully advance these partnered programs will affect potential milestones and royalties we could earn under our collaboration agreements. Further, our partners may decide not to pursue, or decide to deprioritize our programs due to changing priorities which could affect our future potential revenue from such arrangements.

Because of the numerous risks and uncertainties associated with biologic product development, we are unable to predict the timing or amount of increased expenses and when we will be able to achieve or maintain profitability, if ever. In addition, our expenses could increase beyond expectations if we are required by the FDA, or foreign regulatory agencies, to perform studies and trials in addition to those that we currently anticipate, or if there are any delays in our or our partners completing clinical trials or the development of any of our product candidates. Even if we or our partners are able to generate revenues from the sale of any approved products, we may not become profitable and may need to obtain additional funding to continue operations, which may not be available to us on favorable terms, if at all.

We will require additional financing and may be unable to raise sufficient capital, which could lead us to delay, reduce or abandon research and development programs or commercialization.

As of December 31, 2020, we had $604.0 million in cash, cash equivalents and marketable securities. We expect our expenses to increase in connection with our ongoing development activities, including the continued development of our pipeline of bispecific drug candidates and other research activities. Identifying potential product candidates and conducting preclinical testing and clinical trials are time-consuming, expensive and uncertain processes that take years to complete, and we or our partners may never generate the necessary data or results required to obtain regulatory approval and achieve product sales. In addition, our product candidates, if approved, may not achieve commercial success.

Our commercial revenues, if any, will be derived from sales of products that we do not expect to be commercially available for many years, if at all. If we are unable to raise capital when needed or on attractive terms, we could be forced to delay, reduce or eliminate our research and development programs or any future commercialization efforts.

We believe our existing cash, cash equivalents and marketable securities, together with interest thereon and expected milestones and royalty payments will be sufficient to fund our operations into 2024. However, changing circumstances or inaccurate estimates by us may cause us to use capital significantly faster than we currently anticipate, and we may need to spend more money than currently expected because of circumstances beyond our control. We do not have sufficient cash to complete the clinical development of any of our product candidates and will require additional funding to complete the development activities required for regulatory approval of our current product candidates or any other future product candidates that we develop independently. Because successful development of our product candidates is uncertain, we are unable to estimate the actual funds we will require to complete research and development

and commercialize our product candidates. Adequate additional financing may not be available to us on acceptable terms, or at all. In addition, we may seek additional capital due to favorable market conditions or strategic considerations; even if we believe we have sufficient funds for our current or future operating plans. If we are unable to raise capital when needed or on attractive terms, we could be forced to delay, reduce or eliminate our research and development programs or any future commercialization efforts.

The market price of our common stock is likely to be highly volatile, and you could lose all or part of your investment.

Prior to our initial public offering (IPO), there was no public market for our common stock. The trading price of our common stock is likely to be volatile. Since our IPO, the trading price of our common stock has ranged from a low of approximately $5.75 to a high of approximately $55.33. Our stock price could be subject to wide fluctuations in response to a variety of factors, including the following:

1. adverse results or delays, or cancellations of clinical trials by us or our partners;
2. inability to obtain additional funding;
3. changes in laws or regulations applicable to our products;
4. inability to obtain adequate product supply for our product candidates, or the inability to do so at acceptable prices;
5. adverse regulatory decisions;
6. changes in the structure of healthcare payment systems;
7. introduction of new products or technologies by our competitors;
8. failure to meet or exceed product development or financial projections we provide to the public;
9. the perception of the pharmaceutical and biotechnology industry by the public, legislatures, regulators and the investment community;
10. announcements of significant acquisitions, strategic partnerships, joint ventures or capital commitments by us or our competitors;
11. disputes or other developments relating to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;
12. additions or departures of key scientific or management personnel;
13. significant lawsuits, including patent or stockholder litigation;
14. changes in the market valuations of similar companies;
15. sales of our common stock by us or our stockholders in the future; and
16. trading volume of our common stock.

In addition, the stock market in general, and the Nasdaq Global Market and biotechnology companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. Broad market and industry factors may negatively affect the market price of our common stock, regardless of our actual operating performance.

In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us because biopharmaceutical companies have experienced significant stock price volatility in recent years. If we face such litigation, it could result in substantial costs and a diversion of management's attention and resources, which could harm our business.

Our principal stockholders, directors and management own a significant percentage of our stock and will be able to exert significant control over matters subject to stockholder approval.

Based on information available to us as of December 31, 2020 our executive officers, directors, 5% stockholders and their affiliates beneficially owned, as a group, approximately 67% of our voting stock.

Therefore, our officers, directors and 5% stockholders and their affiliates will have the ability to influence us through this ownership position and so long as they continue to beneficially own a significant amount of our outstanding voting stock. These stockholders may be able to determine all matters requiring stockholder approval and this concentration of ownership may deprive other stockholders from realizing the true value of our common stock. For example, these stockholders, acting together, may be able to control elections of directors, amendments of our organizational documents, or approval of any merger, sale of assets, or other major corporate transaction. This may prevent or discourage unsolicited acquisition proposals, offers for our common stock or other transactions or arrangements that you may believe are in your best interest as one of our stockholders.

Raising additional funds through debt or equity financing may be dilutive or restrict our operations and raising funds through licensing may require us to relinquish rights to our technology or product candidates.

To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of those securities could result in substantial dilution for our current stockholders and the terms may include liquidation or other preferences that adversely affect the rights of our current stockholders. Existing stockholders may not agree with our financing plans or the terms of such financings. If we are unable to obtain additional funding on required timelines, we may be required to:

1. seek collaborators for one or more of our product candidates at an earlier stage than otherwise would be desirable or on terms that are less favorable than might otherwise be available;

2. relinquish or license on unfavorable terms our rights to technologies or product candidates that we otherwise would seek to develop or commercialize ourselves; or

3. significantly curtail one or more of our research or development programs or cease operations altogether.

Additional funding may not be available to us on acceptable terms, or at all.

Future sales and issuances of our common stock or rights to purchase common stock, including pursuant to our equity incentive plans, could result in additional dilution of the percentage ownership of our stockholders and could cause our stock price to fall.

We expect that significant additional capital will be needed in the future to continue our planned operations. To the extent we raise additional capital by issuing equity securities, our stockholders may experience substantial dilution. We may sell common stock, convertible securities, or other equity securities in one or more transactions at prices and in a manner, we determine from time to time. These sales may also result in material dilution to our existing stockholders, and new investors could gain rights superior to our existing stockholders.

Pursuant to our 2013 equity incentive plan (2013 plan), subject to board approval, our management is authorized to grant stock options and other equity-based awards to our employees, directors and consultants. The number of shares available for future grant under the 2013 plan will automatically increase each year until 2023 by 4% of all shares of our capital stock outstanding as of December 31 of the prior calendar year, subject to the ability of our Board of Directors to take action to reduce the size of the increase in any given year. As of December 31, 2020, we had options to purchase 7,751,789 shares outstanding under our equity compensation plans. In addition, we are also authorized to

grant equity awards, including stock options, to our employees, directors and consultants, covering up to 11,479,096 shares of our common stock, pursuant to our equity compensation plans. We plan to register the number of shares available for issuance or subject to outstanding awards under our equity compensation plans. If our Board of Directors elects to increase the number of shares available for future grant by the maximum amount each year, our stockholders may experience additional dilution, which could cause our stock price to fall.

If our internal control over financial reporting is not effective, we may not be able to accurately report our financial results or file our periodic reports in a timely manner, which may cause investors to lose confidence in our reported financial information and may lead to a decline in our stock price.

Effective internal control over financial reporting is necessary for us to provide reliable financial reports in a timely manner. If we fail to adequately staff our accounting and finance function to address the additional demands that will be placed upon us as a public company, including the requirements of the Sarbanes-Oxley Act of 2002, or fail to maintain adequate internal control over financial reporting, it could prevent our management from concluding our internal control over financial reporting is effective and impair our ability to prevent material misstatements in our financial statements, which could cause our business to suffer.

As a large accelerated filer, we are subject to additional internal control requirements of the Sarbanes-Oxley Act of 2002.

Sales of a substantial number of shares of our common stock by our existing stockholders in the public market could cause our stock price to fall.

If our existing stockholders sell, or indicate an intention to sell, substantial amounts of our common stock in the public market, the trading price of our common stock could decline. In addition, a substantial number of shares of common stock are subject to outstanding options that are or will become eligible for sale in the public market to the extent permitted by the provisions of various vesting schedules. If these additional shares of common stock are sold, or if it is perceived that they will be sold, in the public market, the trading price of our common stock could decline.

Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.

Our net operating loss (NOL) carryforwards generated in tax years ending on or prior to December 31, 2017, are only permitted to be carried forward for 20 years under applicable U.S. tax law. Under the TCJA, our federal NOLs generated in tax years ending after December 31, 2017, may be carried forward indefinitely, but the deductibility of such federal NOLs generated in tax years beginning after December 31, 2020, is limited. It is uncertain if and to what extent various states will conform to the TCJA. In addition, under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, and corresponding provisions of state law, if a corporation undergoes an "ownership change," which is generally defined as a greater than 50% change, by value, in its equity ownership over a three-year period, the corporation's ability to use its pre-change NOL carryforwards and other pre-change U.S. tax attributes (such as research tax credits) to offset its post-change income or taxes may be limited. It is also possible that we have in the past undergone, and in the future may undergo, ownership changes that could result in additional limitations on our net operating loss and tax credit carryforwards.

As a result, our pre-2018 NOL carryforwards may expire prior to being used. Similar provisions of state tax law may also apply to limit our use of accumulated state tax attributes. In addition, at the state level, there may be periods during which the use of NOLs is suspended or otherwise limited, which could accelerate or permanently increase state taxes owed. As a result, if we earn net taxable income, we may be unable to use all or a material portion of our NOLs and other tax attributes, which could potentially result in increased future tax liability to us and adversely affect our future cash flows.

We do not intend to pay dividends on our common stock so any returns will be limited to the value of our stock.

We have never declared or paid any cash dividend on our common stock. We currently anticipate that we will retain future earnings for the development, operation and expansion of our business and do not anticipate declaring or

paying any cash dividends for the foreseeable future. Any return to stockholders will therefore be limited to the appreciation of their stock.

Provisions in our amended and restated certificate of incorporation and bylaws, as well as provisions of Delaware law, could make it more difficult for a third party to acquire us or increase the cost of acquiring us, even if doing so would benefit our stockholders or remove our current management.

Some provisions of our charter documents and Delaware law may have anti-takeover effects that could discourage an acquisition of us by others, even if an acquisition would be beneficial to our stockholders and may prevent attempts by our stockholders to replace or remove our current management. These provisions include:

- authorizing the issuance of "blank check" preferred stock, the terms of which may be established and shares of which may be issued without stockholder approval;
- prohibiting stockholder action by written consent, thereby requiring all stockholder actions to be taken at a meeting of our stockholders;
- eliminating the ability of stockholders to call a special meeting of stockholders; and
- establishing advance notice requirements for nominations for election to the Board of Directors or for proposing matters that can be acted upon at stockholder meetings.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our Board of Directors, which is responsible for appointing the members of our management. In addition, we are subject to Section 203 of the Delaware General Corporation Law, which generally prohibits a Delaware corporation from engaging in any of a broad range of business combinations with an interested stockholder for a period of three years following the date on which the stockholder became an interested stockholder, unless such transactions are approved by our Board of Directors. This provision could have the effect of delaying or preventing a change of control, whether or not it is desired by or beneficial to our stockholders. Further, other provisions of Delaware law may also discourage, delay, or prevent someone from acquiring us or merging with us. Any provision of our certificate of incorporation or bylaws or Delaware law that has the effect of delaying or deterring change in control could limit the opportunity for our stockholders to receive a premium for their shares of our common stock, and could also affect the price that some investors are willing to pay for our common stock.

Requirements associated with being a public reporting company will continue to increase our costs significantly, as well as divert significant company resources and management attention.

We have been subject to the reporting requirements of the Exchange Act and the other rules and regulations of the Securities and Exchange Commission (SEC) since December 2013. Effective for the year-ended December 31, 2016, we became a large accelerated filer and are subject to additional internal control and SEC reporting obligations. Compliance with the various reporting and other requirements applicable to public reporting companies requires considerable time, attention of management, and financial resources.

Further, the listing requirements of The Nasdaq Global Market require that we satisfy certain corporate governance requirements relating to director independence, distributing annual and interim reports, stockholder meetings, approvals, and voting, soliciting proxies, conflicts of interest and a code of conduct. Our management and other personnel need to devote a substantial amount of time to ensure that we comply with all of these requirements. Moreover, the reporting requirements, rules and regulations increase our legal and financial compliance costs and also make some activities more time-consuming and costly. These reporting requirements, rules, and regulations, coupled with the increase in potential litigation exposure associated with being a public company, could also make it more difficult for us to attract and retain qualified persons to serve on our Board of Directors or board committees or to serve as executive officers, or to obtain certain types of insurance, including directors' and officers' insurance, on acceptable terms.

In addition, being a public company could make it more difficult or more costly for us to obtain certain types of insurance, including directors' and officers' liability insurance, and we may be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. The impact of these events could also make it more difficult for us to attract and retain qualified persons to serve on our Board of Directors, our Board committees, or as executive officers.

Any changes we make to comply with these obligations may not be sufficient to allow us to satisfy our obligations as a public company on a timely basis, or at all.

Risks Related to Our Intellectual Property

If we are unable to obtain, maintain and enforce intellectual property protection covering our products, others may be able to make, use or sell products substantially the same as ours, which could adversely affect our ability to compete in the market.

Our commercial success depends, in part, on our ability to obtain, maintain and enforce patents, trade secrets, trademarks and other intellectual property rights and to operate without having third parties infringe, misappropriate or circumvent the rights that we own or license. The value of many of our partnered licensing arrangements is based on the underlying intellectual property and related patents. If we are unable to obtain, maintain and enforce intellectual property protection covering our products or underlying technologies, others may be able to make, use or sell products that are substantially the same as ours without incurring the sizeable development and licensing costs that we have incurred, which would adversely affect our ability to compete in the market. As of December 31, 2020, we held over 1,000 issued patents and pending patent applications. We file patent applications in the United States, Canada, Japan, Europe and other major markets either directly or via the Patent Cooperation Treaty. Our ability to stop third parties from making, using, selling, offering to sell or importing our product candidates is dependent upon the extent to which we have rights under valid and enforceable patents or trade secrets that cover these activities. However, the patent positions of biopharmaceutical companies, including ours, can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in patents in these fields has emerged to date in the United States. The U.S. patent laws have recently changed, there have been changes regarding how patent laws are interpreted, and the U.S. Patent and Trademark Office (the PTO) has also implemented changes to the patent system. Some of these changes are currently being litigated, and we cannot accurately determine the outcome of any such proceedings or predict future changes in the interpretation of patent laws or changes to patent laws which might be enacted into law. Those changes may materially affect our patents, our ability to obtain patents or the patents and applications of our collaborators and licensors. The patent situation in the biopharmaceutical industry outside the United States is even more uncertain. Therefore, there is no assurance that our pending patent applications will result in the issuance of patents or that we will develop additional proprietary products which are patentable. Moreover, patents issued or to be issued to us may not provide us with any competitive advantage. Our patent position is subject to numerous additional risks, including the following:

1. we may fail to seek patent protection for inventions that are important to our success;

2. our pending patent applications may not result in issued patents;

3. we cannot be certain that we are the first to invent the inventions covered by pending patent applications or that we were the first to file such applications and, if we are not, we may be subject to priority disputes;

4. we may be required to disclaim part or all of the term of certain patents or all of the term of certain patent applications;

5. we may file patent applications but have claims restricted or we may not be able to supply sufficient data to support our claims and, as a result, may not obtain the original claims desired or we may receive restricted claims. Alternatively, it is possible that we may not receive any patent protection from an application;

6. we could inadvertently abandon a patent or patent application, resulting in the loss of protection of certain intellectual property rights in a certain country. We, our collaborators or, our patent counsel may take action resulting in a patent or patent application becoming abandoned which may not be able to be reinstated or if reinstated, may suffer patent term adjustments;

7. the claims of our issued patents or patent applications when issued may not cover our product candidates;

8. no assurance can be given that our patents would be declared by a court to be valid or enforceable or that a competitor's technology or product would be found by a court to infringe our patents. Our patents or patent applications may be challenged by third parties in patent litigation or in proceedings before the PTO or its foreign counterparts, and may ultimately be declared invalid or unenforceable, or narrowed in scope;

9. there may be prior art of which we are not aware that may affect the validity or enforceability of a patent claim. There also may be prior art of which we are aware, but which we do not believe affects the validity or enforceability of a claim, which may, nonetheless, ultimately be found to affect the validity or enforceability of a claim;

10. third parties may develop products which have the same or similar effect as our products without infringing our patents. Such third parties may also intentionally circumvent our patents by means of alternate designs or processes or file applications or be granted patents that would block or hurt our efforts;

11. there may be dominating patents relevant to our product candidates of which we are not aware;

12. our patent counsel, lawyers or advisors may have given us, or may in the future give us incorrect advice or counsel. Opinions from such patent counsel or lawyers may not be correct or may be based on incomplete facts;

13. obtaining regulatory approval for biopharmaceutical products is a lengthy and complex process, and as a result, any patents covering our product candidates may expire before, or shortly after such product candidates are approved and commercialized;

14. the patent and patent enforcement laws of some foreign jurisdictions do not protect intellectual property rights to the same extent as laws in the United States, and many companies have encountered significant difficulties in protecting and defending such rights in foreign jurisdictions. If we encounter such difficulties or we are otherwise precluded from effectively protecting our intellectual property rights in foreign jurisdictions, our business prospects could be substantially harmed; and

15. we may not develop additional proprietary technologies that are patentable.

Any of these factors could hurt our ability to gain full patent protection for our products. Registered trademarks and trademark applications in the United States and other countries are subject to similar risks as described above for patents and patent applications, in addition to the risks described below.

Many of our product development partnership agreements are complex and may call for licensing or cross-licensing of potentially blocking patents, know-how or intellectual property. Due to the potential overlap of data, know-how and intellectual property rights there can be no assurance that one of our collaborators will not dispute our right to use, license or distribute data, know-how or other intellectual property rights, and this may potentially lead to disputes, liability or termination of a program. There are no assurances that our actions or the actions of our collaborators would not lead to disputes or cause us to default with other collaborators. For example, we may become involved in disputes with our collaborators relating to the ownership of intellectual property developed in the course of the partnership. We also cannot be certain that a collaborator will not challenge the validity or enforceability of the patents we license.

We cannot be certain that any country's patent and/or trademark office will not implement new rules which could seriously affect how we draft, file, prosecute and/or maintain patents, trademarks and patent and trademark applications. We cannot be certain that increasing costs for drafting, filing, prosecuting and maintaining patents, trademarks and patent and trademark applications will not restrict our ability to file for patent protection. For example, we may elect not to seek patent protection in certain jurisdictions or for certain inventions in order to save costs. We may be forced to abandon or return the rights to specific patents due to a lack of financial resources.

We intend to file applications for trademark registrations in connection with our product candidates in various jurisdictions, including the United States. No assurance can be given that any of our trademark applications will be registered in the United States or elsewhere, or that the use of any registered or unregistered trademarks will confer a competitive advantage in the marketplace. Furthermore, even if we are successful in our trademark registrations, the FDA and regulatory authorities in other countries have their own process for drug nomenclature and their own views concerning appropriate proprietary names. No assurance can be given that the FDA or any other regulatory authority will approve of any of our trademarks or will not request reconsideration of one of our trademarks at some time in the future. The loss, abandonment, or cancellation of any of our trademarks or trademark applications could negatively affect the success of the product candidates to which they relate.

We have in-licensed, and may in the future in-license, a portion of our intellectual property, and, if we fail to comply with our obligations under these arrangements, we could lose such intellectual property rights or owe damages to the licensor of such intellectual property.

We currently rely, and may in the future rely, on certain intellectual property rights licensed from third parties to protect our technology and certain product candidates, and we may enter into additional license agreements in the future. As part of our discovery and development activities, we routinely evaluate in-licenses from academic and research institutions. We have licensed and sublicensed certain intellectual property relating to our Xtend technology from a third party. We have also sublicensed certain intellectual property rights related to our CD3 bispecific technology from a third party, and we have licensed certain intellectual property rights from a third party related to our tidutamab and our IL-15 product candidates. We also license certain rights to the underlying cell lines for all our product candidates from third parties. Under these licenses, we have no right to control patent prosecution of the intellectual property or to enforce the patents, and as such the licensed rights may not be adequately maintained by the licensors. The termination of these or other licenses could also prevent us from commercializing product candidates covered by the licensed intellectual property.

Furthermore, the research resulting in the in-licensed patents was developed in the course of research funded by the U.S. government. As a result, the U.S. government may have certain rights ("march-in rights") to intellectual property embodied in our Xtend products. Government rights in certain inventions developed under a government-funded program include a non-exclusive, non-transferable, irrevocable worldwide license to use inventions for any governmental purpose. Circumstances that trigger march-in rights include, for example, failure to take, within a reasonable time, effective steps to achieve practical application of the invention in a field of use, failure to satisfy the health and safety needs of the public and failure to meet requirements of public use specified by federal regulations. Federal law requires any licensor of an invention that was partially funded by the federal government to obtain a covenant from any exclusive licensee to manufacture products using the invention substantially in the United States. The U.S. government also has the right to use and disclose, without limitation, scientific data relating to licensed technology that was developed in whole or in part at government expense. The government funding agency can elect to exercise these march-in rights on their own initiative or at the request of a third party. It is also possible that we might knowingly or unknowingly in-license additional technology that is subject to U.S. government march-in rights.

Our existing license agreements impose, and we expect that future license agreements will impose, various diligence, milestone payment, royalty and other obligations on us. If there is any conflict, dispute, disagreement or issue of non-performance between us and our licensing partners regarding our rights or obligations under the license agreements, including any such conflict, dispute or disagreement arising from our failure to satisfy payment obligations under any such agreement, we may owe damages, our licensor may have a right to terminate the affected license, and our and our partners' ability to utilize the affected intellectual property in our drug discovery and development efforts, and

our ability to enter into collaboration or marketing agreements for an affected product or therapeutic candidate, may be adversely affected.

We may be required to reduce the scope of our intellectual property due to third-party intellectual property claims.

Our competitors may have filed, and may in the future file, patent applications covering technology similar to ours. Any such patent application may have priority over our patent applications, which could further require us to obtain rights to issued patents covering such technologies. If another party has filed a U.S. patent application on inventions similar to ours that claims priority to an application filed prior to March 16, 2013, we may have to participate in an interference proceeding declared by the PTO to determine priority of invention in the United States. The costs of these proceedings could be substantial, and it is possible that such efforts would be unsuccessful if, unbeknownst to us, the other party had independently arrived at the same or similar invention prior to our own invention, resulting in a loss of our U.S. patent position with respect to such inventions. In addition, changes enacted on March 15, 2013 to the U.S. patent laws under the America Invents Act resulted in the United States changing from a "first to invent" country to a "first to file" country. As a result, we may lose the ability to obtain a patent if a third-party files with the PTO first and could become involved in proceedings before the PTO to resolve disputes related to inventorship. We may also become involved in similar proceedings in other jurisdictions.

Furthermore, recent changes in U.S. patent law under the America Invents Act allows for post-issuance challenges to U.S. patents, including ex parte reexaminations, inter parte reviews and post-grant oppositions. There is significant uncertainty as to how the new laws will be applied and if our U.S. patents are challenged using such procedures, we may not prevail, possibly resulting in altered or diminished claim scope or loss of patent rights altogether. Similarly, some countries, notably members of the European Union, also have post grant opposition proceedings that can result in changes in scope and/or cancellation of patent claims.

Our products could infringe patents and other property rights of others, which may result in costly litigation and, if we are not successful, could cause us to pay substantial damages or limit our ability to commercialize our products, which could have a material adverse effect on our business.

Our commercial success depends upon our ability, and the ability of our collaborators, to develop, manufacture, market and sell our product candidates and use our proprietary technologies without infringing the patents and other proprietary rights of third parties. There is considerable intellectual property litigation in the biotechnology and pharmaceutical industries. For example, we are aware of issued patents owned by Merus B.V. (Merus) that may relate to and claim components of our bispecific antibody product candidates and partnered bispecific product candidates, including vibecotamab, plamotamab, tidutamab, XmAb717, XmAb104, XmAb841, and XmAb819 will putatively expire in 2033. We are additionally aware of several patents and pending applications directed to the use of IL-15 fused with Fc domains, and in some cases in combination with targeting domains, that might be relevant to XmAb306, with putative expirations ranging from 2025 to later than 2032. It is possible that these terms could be extended, for example, as a result of patent term restoration to compensate for regulatory delays. While we believe that our current development of these candidates currently falls into the "safe harbor" of non-infringement under 35 U.S.C. §271€(1), this protection terminates upon commercialization. In addition, there can be no assurance that our interpretation of this statutory exemption would be upheld. We believe there exists reasonable arguments of invalidity for the Genentech patent, the Merus patents and the IL-15 patents; however, we cannot assure that if challenged in litigation for infringement of these patents that we would prevail. In order to successfully challenge the validity of any issued U.S. patent, we would need to overcome a presumption of validity. This burden is a high one requiring us to present clear and convincing evidence as to the invalidity of such claims. There is no assurance that a court would find these claims to be invalid or not infringed.

In addition, as the biopharmaceutical industry expands and more patents are issued, the risk increases that there may be patents issued to third parties that relate to our products and technology of which we are not aware or that we must challenge to continue our operations as currently contemplated. Our products may infringe or may be alleged to infringe these patents. Because some patent applications in the United States may be maintained in secrecy until the patents are issued, because patent applications in the United States and many foreign jurisdictions are typically not published until eighteen months after filing and because publications in the scientific literature often lag behind actual discoveries, we cannot be certain that others have not filed patents that may cover our technologies, our product

candidates or their use. Additionally, pending patent applications which have been published can, subject to certain limitations, be later amended in a manner that could cover our technologies, our products or the use of our products. We may become party to, or threatened with, future adversarial proceedings or litigation regarding intellectual property rights with respect to our products and technology. Third parties may assert infringement claims against us based on existing patents or patents that may be granted in the future.

If we are sued for patent infringement, we would need to demonstrate that our products or methods either do not infringe the patent claims of the relevant patent or that the patent claims are invalid, and we may not be able to do this. Proving invalidity is difficult. For example, in the United States, proving invalidity requires a showing of clear and convincing evidence to overcome the presumption of validity enjoyed by issued patents. Even if we are successful in these proceedings, we may incur substantial costs and divert management's time and attention in pursuing these proceedings, which could have a material adverse effect on us.

Any such claims are likely to be expensive to defend, and some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources.

If we are found to infringe a third party's intellectual property rights, we could be required to obtain a license from such third party to continue developing and marketing our products and technology. We may also elect to enter into such a license in order to settle litigation or in order to resolve disputes prior to litigation. However, we may not be able to obtain any required license on commercially reasonable terms or at all. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors access to the same technologies licensed to us and could require us to make substantial royalty payments. We could also be forced, including by court order, to cease commercializing the infringing technology or product. In addition, we could be found liable for monetary damages, including treble damages and attorneys' fees if we are found to have willfully infringed a patent. A finding of infringement could prevent us from commercializing our product candidates or force us to cease some of our business operations, which could materially harm our business. Claims that we have misappropriated the confidential information or trade secrets of third parties could have a similar negative impact on our business.

If we are not able to prevent disclosure of our trade secrets and other proprietary information, the value of our technology and products could be significantly diminished.

We rely on trade secret protection to protect our interests in proprietary know-how and in processes for which patents are difficult to obtain or enforce. We may not be able to protect our trade secrets adequately. We have a policy of requiring our consultants, advisors, and collaborators to enter into confidentiality agreements and our employees to enter into invention, non-disclosure and non-compete agreements. However, no assurance can be given that we have entered into appropriate agreements with all parties that have had access to our trade secrets, know-how or other proprietary information. There is also no assurance that such agreements will provide for a meaningful protection of our trade secrets, know-how or other proprietary information in the event of any unauthorized use or disclosure of information. Furthermore, we cannot provide assurance that any of our employees, consultants, contract personnel, or collaborators, either accidentally or through willful misconduct, will not cause serious damage to our programs and/or our strategy, for example by disclosing important trade secrets, know-how or proprietary information to our competitors. It is also possible that our trade secrets, know-how or other proprietary information could be obtained by third parties as a result of breaches of our physical or electronic security systems. Any disclosure of confidential data into the public domain or to third parties could allow our competitors to learn our trade secrets and use the information in competition against us. In addition, others may independently discover our trade secrets and proprietary information. Any action to enforce our rights is likely to be time consuming and expensive, and may ultimately be unsuccessful, or may result in a remedy that is not commercially valuable. These risks are accentuated in foreign countries where laws or law enforcement practices may not protect proprietary rights as fully as in the United States or Europe. Any unauthorized disclosure of our trade secrets or proprietary information could harm our competitive position.

If we do not obtain patent term extension and data exclusivity for any therapeutic candidates we develop, our business may be materially harmed.

Depending upon the timing, duration, and specifics of any FDA marketing approval of any therapeutic candidates we

may develop, one or more of our owned or licensed U.S. patents may be eligible for limited patent term extension under the Hatch-Waxman Act. Similar extensions as compensation for patent term lost during regulatory review processes are also available in certain foreign countries and territories, such as in Europe under a Supplementary Patent Certificate. However, we may not be granted an extension in the United States and/or foreign countries and territories because of, for example, failing to exercise due diligence during the testing phase or regulatory review process, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents, or otherwise failing to satisfy applicable requirements. Moreover, the applicable time period or the scope of patent protection afforded could be less than we request. If we are unable to obtain patent term extension or the term of any such extension is shorter than what we request or we fail to choose the most optimal patents to extend, our competitors may obtain approval of competing products following our patent expiration, and our business, financial condition, results of operations and prospects could be materially harmed.

Risks Related to Our Dependence on Third Parties

Our patent protection and prosecution for some of our product candidates is dependent on third parties.

While we normally seek and gain the right to fully prosecute the patents relating to our product candidates, there may be times when patents relating to our product candidates are controlled by our licensors.

We rely on third-party manufacturers for the manufacture of our XmAb-engineered antibodies. This entails a complex process and manufacturers often encounter difficulties in production. If we, or any of our third-party manufacturers, encounter any loss of our master cell banks or if any of our third-party manufacturers otherwise fail to comply with their contractual obligations, the development or commercialization of our product candidates could be delayed or stopped.

The manufacture of biopharmaceutical products is complex and requires significant expertise and capital investment, including the development of advanced manufacturing techniques and process controls. We and our contract manufacturers must comply with cGMP regulations and guidelines. Manufacturers of biopharmaceutical products often encounter difficulties in production, particularly in scaling up and validating initial production and contamination. These problems include difficulties with production costs and yields, quality control, including stability of the product, quality assurance testing, operator error, shortages of qualified personnel, as well as compliance with strictly enforced federal, state and foreign regulations. Furthermore, if microbial, viral or other contaminations are discovered in our products or in the manufacturing facilities in which our products are made, such manufacturing facilities may need to be closed for an extended period of time to investigate and remedy the contamination.

All of our XmAb engineered antibodies are manufactured by starting with cells which are stored in a cell bank. We have one master cell bank for each antibody manufactured in accordance with cGMP and multiple working cell banks and believe we would have adequate backup should any cell bank be lost in a catastrophic event. However, it is possible that we could lose multiple cell banks and have our manufacturing severely impacted by the need to replace the cell banks.

We cannot assure you that any stability or other issues relating to the manufacture of any of our product candidates or products will not occur in the future. Additionally, our manufacturer may experience manufacturing difficulties due to resource constraints or as a result of labor disputes or unstable political environments. If our manufacturers were to encounter any of these difficulties, or otherwise fail to comply with their contractual obligations, our ability to provide any product candidates to patients in clinical trials and products to patients, once approved, would be jeopardized. Any delay or interruption in the supply of clinical trial supplies could delay the completion of clinical trials, increase the costs associated with maintaining clinical trial programs and, depending upon the period of delay, require us to commence new clinical trials at additional expense or terminate clinical trials completely. Any adverse developments affecting clinical or commercial manufacturing of our product candidates or products may result in shipment delays, inventory shortages, lot failures, product withdrawals or recalls, or other interruptions in the supply of our product candidates or products. We may also have to take inventory write-offs and incur other charges and expenses for product candidates or products that fail to meet specifications, undertake costly remediation efforts or seek more costly manufacturing alternatives. Accordingly, failures or difficulties faced at any level of our supply chain could

materially adversely affect our business and delay or impede the development and commercialization of any of our product candidates or products and could have a material adverse effect on our business, prospects, financial condition and results of operations.

Our existing partnerships are important to our business, and future partnerships may also be important to us. If we are unable to maintain any of these partnerships, or if these partnerships are not successful, our business could be adversely affected.

Because developing biologics products, conducting clinical trials, obtaining regulatory approval, establishing manufacturing capabilities and marketing approved products are expensive, we have entered into partnerships, and may seek to enter into additional partnerships, with companies that have more resources and experience than us, and we may become dependent upon the establishment and successful implementation of partnership agreements.

Our partnership and license agreements include those we have announced with Janssen Genentech, Novartis, Amgen, MorphoSys, Alexion and others. These partnerships and license agreements also have provided us with important funding for our development programs, and we expect to receive additional funding under these partnerships in the future. Our existing partnerships, and any future partnerships we enter into, may pose a number of risks, including the following:

1. collaborators have significant discretion in determining the efforts and resources that they will apply to these partnerships. For example, in 2020, Amgen notified us of its decision to return the rights to AMG 424 to us under the terms of the Amgen Agreement, and in December 2018, Novartis notified us of its decision to return the rights to plamotamab to us under the terms of the Novartis Agreement;

2. our Novartis Agreement requires us to co-develop worldwide with Novartis our lead bispecific antibody candidate, vibecotamab, and share development costs. Such an arrangement may require us to incur substantial costs in excess of our available resources;

3. our Genentech Agreement requires that we fund 45% of worldwide development costs of XmAb306 and other IL-15 candidates. Such an arrangement may require us to incur substantial costs in excess of available resources;

4. collaborators may not pursue development and commercialization of any product candidates that achieve regulatory approval or may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in the collaborators' strategic focus or available funding, or external factors, such as an acquisition, that divert resources or create competing priorities;

5. collaborators 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 or require a new formulation of a product candidate for clinical testing;

6. collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our products or product candidates if the collaborators believe that competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than ours, which may cause collaborators to cease to devote resources to the commercialization of our product candidates;

7. a collaborator with marketing and distribution rights to one or more of our product candidates that achieve regulatory approval may not commit sufficient resources to the marketing and distribution of such product or products;

8. disagreements with collaborators, including disagreements over proprietary rights, contract interpretation or the preferred course of development, might cause delays or termination of the research, development or commercialization of product candidates, might lead to additional responsibilities for us with respect to product candidates, or might result in litigation or arbitration, any of which would be time-consuming and expensive;

9. while we have generally retained the right to maintain and defend our intellectual property under our agreements with collaborators, certain collaborators may not properly maintain or defend certain of our intellectual property rights or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our intellectual property or proprietary information;

10. collaborators may infringe the intellectual property rights of third parties, which may expose us to litigation and potential liability;

11. collaborators may learn about our technology and use this knowledge to compete with us in the future;

12. results of collaborators' preclinical or clinical studies could produce results that harm or impair other products using our XmAb technology platform;

13. there may be conflicts between different collaborators that could negatively affect those partnerships and potentially others; and

14. the number and type of our partnerships could adversely affect our attractiveness to future collaborators or acquirers.

If our partnerships and license agreements do not result in the successful development and commercialization of products or if one of our collaborators terminates its agreement with us, we may not receive any future research and development funding or milestone or royalty payments under the arrangement. If we do not receive the funding we expect under these arrangements, our continued development of our product candidates could be delayed, and we may need additional resources to develop additional product candidates. All of the risks described in these risk factors relating to product development, regulatory approval and commercialization described in this Annual Report also apply to the activities of our collaborators and there can be no assurance that our partnerships and license agreements will produce positive results or successful products on a timely basis or at all.

Our partnership agreements generally grant our collaborators exclusive rights under certain of our intellectual property and may therefore preclude us from entering into partnerships with others relating to the same or similar compounds, indications or diseases. In addition, partnership agreements may place restrictions or additional obligations on our ability to license additional compounds in different indications, diseases or geographical locations. If we fail to comply with or breach any provision of a partnership agreement, a collaborator may have the right to terminate, in whole or in part, such agreement or to seek damages. Many of our collaborators also have the right to terminate the partnership agreement for convenience. If a partnership agreement is terminated, in whole or in part, we may be unable to continue the development and commercialization of the applicable product candidates, and even if we are able to do so, such efforts may be delayed and result in additional costs.

There is no assurance that a collaborator who is acquired by a third party would not attempt to change certain contract provisions that could negatively affect our partnership. The acquiring company may also not accept the terms or assignment of our contracts and may seek to terminate the agreements. Any one of our partners could breach covenants, restrictions and/or sub-license agreement provisions leading us into disputes and potential breaches of our agreements with other partners.

We may in the future determine to partner with additional pharmaceutical and biotechnology companies for development and potential commercialization of therapeutic products. We face significant competition in seeking appropriate collaborators. Our ability to reach a definitive agreement for a partnership will depend, among other things, upon our assessment of the collaborator's resources and expertise, the terms and conditions of the proposed partnership

and the proposed collaborator's evaluation of a number of factors. If we elect to fund and undertake development or commercialization activities on our own, we may need to obtain additional expertise and additional capital, which may not be available to us on acceptable terms or at all. If we fail to enter into partnerships and do not have sufficient funds or expertise to undertake the necessary development and commercialization activities, we may not be able to further develop our product candidates or bring them to market or continue to develop our product platform and our business, prospects, financial condition and results of operations may be materially and adversely affected.

We rely upon third-party contractors, and service providers for the execution of most aspects of our development programs. Failure of these collaborators to provide services of a suitable quality and within acceptable timeframes may cause the delay or failure of our development programs.

We outsource manufacturing, certain functions, testing and services to contract research organizations (CROs), medical institutions and collaborators, and we rely on third parties for quality assurance, clinical monitoring, clinical data management and regulatory expertise. We also have engaged, and may in the future engage, a CRO to run all aspects of a clinical trial on our behalf. There is no assurance that such individuals or organizations will be able to provide the functions, tests, biologic supply or services as agreed upon or in a quality fashion and we could suffer significant delays in the development of our products or processes.

In some cases, there may be only one or few providers of such services, including clinical data management or manufacturing services. In addition, the cost of such services could be significantly increased over time. We rely on third parties and collaborators as mentioned above to enroll qualified patients and conduct, supervise and monitor our clinical trials. Our reliance on these third parties and collaborators for clinical development activities reduces our control over these activities. Our reliance on these parties, however, does not relieve us of our regulatory responsibilities, including ensuring that our clinical trials are conducted in accordance with GCP regulations and the investigational plan and protocols contained in the regulatory agency applications. In addition, these third parties may not complete activities on schedule or may not manufacture under GMP conditions. Preclinical or clinical studies may not be performed or completed in accordance with Good Laboratory Practices (GLP) regulatory requirements or our trial design. If these third parties or collaborators do not successfully carry out their contractual duties or meet expected deadlines, obtaining regulatory approval for manufacturing and commercialization of our product candidates may be delayed or prevented. We rely substantially on third-party data managers for our clinical trial data. There is no assurance that these third parties will not make errors in the design, management or retention of our data or data systems. There is no assurance these third parties will pass FDA or regulatory audits, which could delay or prohibit regulatory approval.

We rely on third parties to manufacture supplies of our preclinical and clinical product candidates. The development of such candidates could be stopped or delayed if any such third party fails to provide us with sufficient quantities of product or fails to do so at acceptable quality levels or prices or fails to maintain or achieve satisfactory regulatory compliance.

We do not currently have nor do we plan to acquire the infrastructure or capability internally to manufacture our clinical drug supplies for use in the conduct of our clinical trials, and we lack the resources and the capability to manufacture any clinical candidates on a clinical scale. Instead, we rely on our third-party manufacturing partners to manufacture our clinical drug supply. Any of our contract manufacturers may not perform as agreed, may be unable to comply with cGMP requirements and with FDA, state and foreign regulatory requirements or may terminate their respective agreements with us.

In addition, manufacturers are subject to ongoing periodic unannounced inspection by the FDA and other governmental authorities to ensure strict compliance with government regulations. We do not control the manufacturing processes of our third-party manufacturing partners, which include, among other things, quality control, quality assurance and the maintenance of records and documentation. If we were to experience an unexpected loss of supply, we could experience delays in our planned clinical trials as our third-party manufacturing partner would need to manufacture additional clinical drug supply and would need sufficient lead time to schedule a manufacturing slot. While there are other potential suppliers of clinical supplies of our biologics, the long transition periods necessary to switch manufacturers for any of our clinical drug supply would significantly delay our clinical trials and the commercialization of such products, if approved.

Risks Related To Our Industry

Clinical trials are expensive and take years to conduct and the outcome of such clinical trials is uncertain. Clinical trials may fail to prove our product candidates are safe and effective. This could lead to delays, downsizing or termination of clinical development plans for any our product candidates.

Each product candidate must receive regulatory approval and therefore must undergo rigorous and extensive preclinical studies and clinical trials to demonstrate safety and efficacy in patients. Clinical trials at any stage in development may fail to demonstrate the safety, efficacy or pharmacologic properties needed to be a viable product candidate in patients. Early clinical trials may fail to demonstrate the safety and pharmacokinetic characteristics needed to invest in larger later stage clinical studies. Later clinical studies that are larger may not demonstrate the desired safety and efficacy profile needed to be of benefit to patients. Additionally, regulatory authorities may determine that the data provided is not sufficient to grant marketing approval for our product candidates and may request additional data including additional clinical trials or reject product approval.

Adverse side effects or other safety risks associated with our product candidates could delay or preclude approval, cause us to suspend or discontinue clinical trials, abandon product candidates, limit the commercial profile of an approved label, or result in significant negative consequences following marketing approval, if any.

Conducting early clinical trials is complex and the outcomes are uncertain. Preclinical studies are performed to help inform human clinical trials, but human and animal studies are not comparable. Expected or unexpected undesirable side effects caused by our product candidates could result in the delay, suspension or termination of clinical trials by us, our collaborators, the FDA or other regulatory authorities for a number of reasons. If we elect or are required to delay, suspend or terminate any clinical trial of any product candidates that we develop, the commercial prospects of such product candidates will be harmed and our ability to generate product revenues from any of these product candidates will be delayed or eliminated. Serious adverse events observed in clinical trials could hinder or prevent market acceptance of the product candidate at issue. Any of these occurrences may harm our business, prospects, financial condition and results of operations significantly.

If we experience delays or difficulties in the enrollment of patients in clinical trials, our receipt of necessary regulatory approvals could be delayed or prevented.

We may not be able to initiate or continue clinical trials for our product candidates if we are unable to locate and enroll a sufficient number of eligible patients to participate in these trials as required by the FDA or similar regulatory authorities outside the United States. In addition, some of our competitors have ongoing clinical trials for product candidates that treat the same indications as our product candidates, and patients who would otherwise be eligible for our clinical trials may instead enroll in clinical trials of our competitors' product candidates.

Our inability to enroll a sufficient number of patients for any of our clinical trials could result in significant delays and could require us to abandon one or more clinical trials altogether. Enrollment delays in our clinical trials may result in increased development costs for our product candidates and in delays to commercially launching our product candidates, if approved, which would cause the value of our company to decline and limit our ability to obtain additional financing.

Our industry is subject to competition for skilled personnel and the challenges we face to identify and retain key personnel could impair our ability to effectively conduct and grow our operations.

Attracting and retaining the highly qualified management, scientific and medical personnel necessary for us to successfully implement our business strategy is extremely competitive in the biotechnology industry. Our industry is experiencing an increasing rate of competition in hiring and retaining employees and in turnover of management personnel. We depend heavily on our current management team, whose services are critical to the successful implementation of our product candidate development and regulatory strategies. In order to induce valuable employees to continue their employment with us, we have provided equity incentives that vest over time. The value to employees of

this equity is significantly affected by movements in our stock price that are beyond our control and may at any time be insufficient to counteract more lucrative offers from other companies.

Despite our efforts to retain valuable employees, members of our management team may terminate their employment with us at any time, with or without notice. Further, we do not maintain "key person" insurance for any of our executives or other employees. The loss of the services of any of our executive officers and our inability to find suitable replacements could harm our business, financial condition, prospects and ability to achieve the successful development or commercialization of our product candidates. Our success also depends on our ability to continue to attract, retain and motivate highly skilled scientific and medical personnel at all levels.

Since 2016 we have been increasing the number of our employees and expanding the scope of our operations with a goal of advancing multiple clinical candidates into development. The increase in our number of employees places a significant strain on our management, operations, and financial resources, and we may have difficulty managing this growth. As we continue to grow our operations and advance our clinical programs into later stages of development, it will require us to recruit and retain employees with additional knowledge and skill sets and no assurance can be provided that we will be able to attract employees with the necessary skill set to assist in our growth. Many of the other biotechnology and pharmaceutical companies and academic institutions that we compete against for qualified personnel have greater financial and other resources, different risk profiles and a longer history in the industry than we do. We also may employ consultants or part-time and contract employees. There can be no assurance that these individuals are retainable. While we have been able to attract and retain skilled and experienced personnel and consultants in the past, no assurance can be given that we will be able to do so in the future.

The development and commercialization of biologic products is subject to extensive regulation, and we may not obtain regulatory approvals for any of our product candidates.

The clinical development, manufacturing, labeling, packaging, storage, recordkeeping, advertising, promotion, export, import, marketing and distribution and other possible activities relating to our current lead antibody product candidates, as well as any other antibody product candidate that we may develop in the future, are subject to extensive regulation in the United States and outside the US as biologics.

If we experience delays in obtaining approval, or if we fail to obtain approval of our product candidates, the commercial prospects for our product candidates may be harmed and our ability to generate revenues will be materially impaired which would adversely affect our business, prospects, financial condition and results of operations.

We face significant competition from other biotechnology and pharmaceutical companies and our operating results will suffer if we fail to compete effectively.

The biotechnology and pharmaceutical industries are intensely competitive. We have competitors both in the United States and internationally, including major multinational pharmaceutical companies, biotechnology companies, universities and other research institutions. Many of our competitors have substantially greater financial, technical and other resources, such as larger research and development staff and experienced marketing and manufacturing organizations and well-established sales forces. Competition may increase further as a result of advances in the commercial applicability of technologies and greater availability of capital for investment in these industries. Our competitors may succeed in developing, acquiring or licensing on an exclusive basis, drug products that are more effective or less costly than any product candidate that we are currently developing or that we may develop.

Competition in autoimmune disease and cancer drug development is intense, with hundreds of compounds in clinical trials by large multinational pharmaceutical companies. In addition, many currently marketed drugs are undergoing clinical testing in new indications in order to expand their use to new patient populations. Other companies, including many large international companies, are developing bispecific antibody technologies and checkpoint inhibitors. This includes products in preclinical and clinical development. Some of these agents have received marketing approval, and companies continue to conduct clinical trials to expand their currently approved indications. Alternative technologies, such as standard chemotherapy, cellular therapies and cancer vaccines, may also compete with our products for patients to conduct clinical trials and future potential market share.

Our ability to compete successfully will depend largely on our ability to leverage our experience in drug discovery and development to:

1. discover and develop products that are superior to other products in the market;
2. attract qualified scientific, product development and commercial personnel;
3. obtain and maintain patent and/or other proprietary protection for our products and technologies;
4. obtain required regulatory approvals; and
5. successfully collaborate with pharmaceutical companies in the discovery, development and commercialization of new products.

Established biopharmaceutical companies may invest heavily to accelerate discovery and development of products that could make our product candidates less competitive. In addition, any new product that competes with an approved product must demonstrate compelling advantages in efficacy, convenience, tolerability and safety in order to overcome price competition and to be commercially successful. Accordingly, our competitors may succeed in obtaining patent protection, receiving FDA approval or discovering, developing and commercializing medicines before we do, which would have a material adverse impact on our business. We will not be able to successfully commercialize our product candidates without establishing sales and marketing capabilities internally or through collaborators.

Our current and future relationships with healthcare professionals, principal investigators, consultants, customers and third-party payors in the United States and elsewhere may be subject, directly or indirectly, to applicable anti-kickback, fraud and abuse, false claims, physician payment transparency, health information privacy and security and other healthcare laws and regulations, which could expose us to penalties.

Healthcare providers, physicians and third-party payors in the United States and elsewhere will play a primary role in the recommendation and prescription of any product candidates for which we obtain marketing approval. Our current and future arrangements with healthcare professionals, principal investigators, consultants, customers and third-party payors may require us to comply with to broadly applicable fraud and abuse and other healthcare laws, including, without limitation, the federal Anti-Kickback Statute and the federal civil False Claims Act, that may constrain the business or financial arrangements and relationships through which we sell, market and distribute any product candidates for which we obtain marketing approval. In addition, we may be subject to physician payment transparency laws and patient privacy and security regulation by the federal government and by the states and foreign jurisdictions in which we conduct our business.

Efforts to ensure that our future business arrangements with third parties will comply with applicable healthcare laws and regulations may involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, including, without limitation, damages, fines, imprisonment, disgorgement, exclusion from participation in government healthcare programs, such as Medicare and Medicaid, additional reporting requirements and/or oversight if we become subject to a corporate integrity agreement or similar agreement to resolve allegations of non-compliance with these laws, and the curtailment or restructuring of our operations, as well as reputational harm, which could significantly harm our business.

Present and future legislation may increase the difficulty and cost for us to obtain marketing approval of and commercialize our product candidates and affect the prices we may obtain.

Among policy makers and payors in the United States and elsewhere, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality and/or expanding access. In the United States, the pharmaceutical industry has been a particular focus of these efforts and has been

significantly affected by major legislative initiatives. Healthcare reform measures, if approved, may result in more rigorous coverage criteria and lower reimbursement, and in additional downward pressure on the price that may be charged for any of our product candidates.

Even if we are able to commercialize any product candidates, our product candidates may be subject to unfavorable pricing regulations, third-party coverage and reimbursement policies or healthcare reform initiatives.

Our ability to commercialize any product candidates successfully will depend, in part, on the extent to which coverage and adequate reimbursement for our product candidates will be available from government payor programs at the federal and state levels, including Medicare and Medicaid, private health insurers, managed care plans and other third-party payors. If coverage and adequate reimbursement are not available or reimbursement is available only to limited levels, we may not be able to successfully commercialize any product candidates for which marketing approval is obtained.

The regulations that govern marketing approvals, pricing, coverage and reimbursement for new drugs and biological products vary widely from country to country. Current and future legislation may significantly change the approval requirements in ways that could involve additional costs and cause delays in obtaining approvals. Some countries require approval of the sale price of a product before it can be marketed. In many countries, the pricing review period begins after marketing or product licensing approval is granted. In some foreign markets, prescription pharmaceutical pricing remains subject to continuing governmental control even after initial approval is granted. As a result, we might obtain marketing approval for a product in a particular country, but then be subject to price regulations that delay commercial launch of the product, possibly for lengthy time periods, and negatively impact the revenues able to be generated from the sale of the product in that country. Adverse pricing limitations may hinder our ability to recoup our investment in one or more product candidates, even if our product candidates obtain marketing approval.

There can be no assurance that our product candidates, if they are approved for sale in the United States or in other countries, will be considered medically reasonable and necessary for a specific indication, that they will be considered cost-effective by third-party payors, that coverage or an adequate level of reimbursement will be available, or that third-party payors' reimbursement policies will not adversely affect our ability to sell our product candidates profitably if they are approved for sale.

Our business involves the controlled use of hazardous materials and as such we are subject to environmental and occupational safety laws. Continued compliance with these laws may incur substantial costs and failure to maintain compliance could result in liability for damages that may exceed our resources.

Our research, manufacturing and development processes, and those of our third-party contractors and partners, involve the controlled use of hazardous materials. We and our manufacturers are subject to federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of such materials and certain waste products. Our operations involve the use of hazardous and flammable materials, including chemicals and biological materials. Our operations also produce hazardous waste products. The risk of accidental contamination or injury from these materials cannot be completely eliminated. In the event of such an accident, we could be held liable for any damages that result, and any such liability could exceed our resources. We are not insured against this type of liability. We may be required to incur significant costs to comply with environmental laws and regulations in the future, and our operations, business or assets may be materially adversely affected by current or future environmental laws or regulations or any liability thereunder.

We may become subject to the risk of product liability claims.

We face an inherent risk of product liability as a result of the clinical testing of our product candidates and will face an even greater risk if we or our partners commercialize any products. Human therapeutic products involve the risk of product liability claims and associated adverse publicity. Currently, the principal risks we face relate to patients in our clinical trials, who may suffer unintended consequences. Claims might be made by patients, healthcare providers or pharmaceutical companies or others. For example, we may be sued if any product we develop allegedly causes injury or is found to be otherwise unsuitable during clinical testing, manufacturing, marketing, or sale. Any such product liability

claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product, negligence, strict liability, and a breach of warranties. Claims could also be asserted under state consumer protection acts. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit commercialization of our product candidates, if approved. Even successful defense would require significant financial and management resources.

General Risk Factors

Our intellectual property may be infringed upon by a third party.

Third parties may infringe one or more of our issued patents or trademarks. We cannot predict if, when or where a third party may infringe one or more of our issued patents or trademarks. To counter infringement, we may be required to file infringement claims, which can be expensive and time consuming. There is no assurance that we would be successful in a court of law in proving that a third party is infringing one or more of our issued patents or trademarks. Any claims we assert against perceived infringers could also provoke these parties to assert counterclaims against us, alleging that we infringe their intellectual property. In addition, in a patent infringement proceeding, a court may decide that a patent of ours is invalid or unenforceable, in whole or in part, construe the patent's claims narrowly and/or refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question, any of which may adversely affect our business. Even if we are successful in proving in a court of law that a third party is infringing one or more of our issued patents or trademarks there can be no assurance that we would be successful in halting their infringing activities, for example, through a permanent injunction, or that we would be fully or even partially financially compensated for any harm to our business. We may be forced to enter into a license or other agreement with the infringing third party at terms less profitable or otherwise commercially acceptable to us than if the license or agreement were negotiated under conditions between those of a willing licensee and a willing licensor. We may not become aware of a third-party infringer within legal timeframes for compensation or at all, thereby possibly losing the ability to be compensated for any harm to our business. Such a third party may be operating in a foreign country where the infringer is difficult to locate and/or the intellectual property laws may be more difficult to enforce. Some third-party infringers may be able to sustain the costs of complex infringement litigation more effectively than we can because they have substantially greater resources. Any inability to stop third-party infringement could result in loss in market share of some of our products or even lead to a delay, reduction and/or inhibition of the development, manufacture or, sale of certain products by us. There is no assurance that a product produced and sold by a third-party infringer would meet our or other regulatory standards or would be safe for use. Such third-party infringer products could irreparably harm the reputation of our products thereby resulting in substantial loss in market share and profits.

We may not have or be able to obtain or maintain sufficient and affordable insurance coverage to cover product liability claims, and without sufficient coverage any claim brought against us could have a materially adverse effect on our business, financial condition or results of operations. We run clinical trials through investigators that could be negligent through no fault of our own and which could affect patients, cause potential liability claims against us and result in delayed or stopped clinical trials. We are required by contractual obligations to indemnify collaborators, partners, third-party contractors, clinical investigators, and institutions. These indemnifications could result in a material impact due to product liability claims against us and/or these groups. We currently carry at least $10.0 million in product liability insurance, which we believe is appropriate for our current clinical trials. Although we maintain such insurance, any claim that may be brought against us could result in a court judgment or settlement in an amount that is not covered, in whole or in part, by our insurance or that is in excess of the limits of our insurance coverage. Our insurance policies also have various exclusions, and we may be subject to a product liability claim for which we have no coverage. We will have to pay any amounts awarded by a court or negotiated in a settlement that exceed our coverage limitations or that are not covered by our insurance, and we may not have, or be able to obtain, sufficient capital to pay such amounts. We may also need to expand our insurance coverage as our business grows or if any of our product candidates is commercialized. We may not be able to maintain or increase insurance coverage at a reasonable cost or in an amount adequate to satisfy any liability that may arise.

Our business could be negatively impacted by cyber security threats and other disruptions, including the theft of our intellectual property, and could compromise our information and expose us to liability, which would cause our business and reputation to suffer.

We are increasingly dependent on information technology systems and infrastructure, including mobile technologies, to operate our business. In the ordinary course of our business, we use our data centers and our networks to store and access confidential and proprietary business information. The information includes, among other things, our intellectual property and proprietary information, the confidential information of our collaborators and licensees and the personally identifiable information of our employees, and the individually identified health information of patients participating in our clinical trials. It is important to our operations and business strategy that this electronic information remains secure and is perceived to be secure. The size and complexity of our information technology systems, and those of our partners and third-party vendors with whom we contract together with the volume of data we retain, make such systems potentially vulnerable to breakdown, malicious intrusion, security breaches and other cyber-security attacks.

Information security risks have significantly increased in recent years in part due to the proliferation of new technologies and the increased sophistication and activities of organized crime, hackers, terrorists and other external parties, including foreign state actors. We face various cyber security threats, including cyber security attacks to our information technology infrastructure and attempts by others to gain access to our proprietary or sensitive information. A security breach or privacy violation that leads to disclosure or modification of or prevents access to personally identifiable information or other protected information could harm our reputation, compel us to comply with federal and/or state breach notification laws and foreign law equivalents, subject us to mandatory corrective action, require us to verify the correctness of database contents and otherwise subject us to liability under laws and regulations that protect personal data, resulting in increased costs or loss of revenue. Similarly, the loss of clinical trial data from completed or ongoing or planned clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. Moreover, a security breach that exposes our confidential intellectual property could compromise our patent portfolio. Additionally, theft of our intellectual property or proprietary business information could require substantial expenditures to remedy. If we are unable to prevent such security breaches or privacy violations or implement satisfactory remedial measures, our operations could be disrupted, and we may suffer loss of reputation, financial loss and other regulatory penalties because of lost or misappropriated information. In addition, these 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. Moreover, the prevalent use of mobile devices that access confidential information increases the risk of data security breaches, which could lead to the loss of confidential information, trade secrets or other intellectual property. As cyber threats continue to evolve, we may be required to expend significant additional resources to continue to modify or enhance our protective measures or to investigate and remediate any information security vulnerabilities.

The procedures and controls we use to monitor these threats and mitigate our exposure may not be sufficient to prevent cyber security incidents. The result of these incidents could have a material adverse effect on our business, financial condition and results of operations including disrupted operations, lost opportunities, misstated financial data, liability for stolen assets or information, increased costs arising from the implementation of additional security protective measures, litigation and reputational damage. Any remedial costs or other liabilities related to cyber security incidents may not be fully insured or indemnified by other means.

Compliance with global privacy and data security requirements could result in additional costs and liabilities to us or inhibit our ability to collect and process data globally, and the failure to comply with such requirements could have a material adverse effect on our business, financial condition or results of operations.

The regulatory framework for the collection, use, safeguarding, sharing, transfer and other processing of information worldwide is rapidly evolving and is likely to remain uncertain for the foreseeable future. For example, the EU's General Data Protection Regulation (GDPR), imposes strict obligations on the processing of personal data, including personal health data, and the free movement of such data. The GDPR applies to any company established in the EU as well as any company outside the EU that processes personal data in connection with the offering of goods or services to individuals in the EU or the monitoring of their behavior.

As such, the GDPR will apply to us in connection with any clinical trials we conduct in the EU. The GDPR enhances data protection obligations for processors and controllers of personal data, including, for example, obligations relating to: processing health and other sensitive data; obtaining consent of individuals; providing notice to individuals regarding data processing activities; responding to data subject requests; taking certain measures when engaging third-party processors; notifying data subjects and regulators of data breaches; implementing safeguards to protect the security and confidentiality of personal data; and transferring personal data to countries outside the EU, including the U.S. The GDPR imposes substantial fines for breaches of data protection requirements, which can be up to four percent of global revenue or 20 million euros, whichever is greater, and it also confers a private right of action on data subjects for breaches of data protection requirements. The GDPR and other changes in laws or regulations associated with the enhanced protection of certain types of sensitive data, such as healthcare data or other personal information from our clinical trials, could require us to change our business practices or lead to government enforcement actions, private litigation or significant penalties against us and could have a material adverse effect on our business, financial condition or results of operations.

Additionally, California recently enacted legislation that has been dubbed the first "GDPR-like" law in the U.S. Known as the California Consumer Privacy Act (CCPA), it creates new individual privacy rights for consumers (as that word is broadly defined in the law) and places increased privacy and security obligations on entities handling personal data of consumers or households. The CCPA, which went into effect on January 1, 2020, requires covered companies to provide new disclosures to California consumers, and provides such consumers new ways to opt-out of certain sales of personal information. The CCPA provides for civil penalties for violations, as well as a private right of action for data breaches that is expected to increase data breach litigation. The CCPA may increase our compliance costs and potential liability. Some observers have noted that the CCPA could mark the beginning of a trend toward more stringent privacy legislation in the U.S., which could increase our potential liability and adversely affect our business.

We may be vulnerable to disruption, damage and financial obligation as a result of system failures.

Despite the implementation of security measures, any of the internal computer systems belonging to us, our collaborators or our third-party service providers are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failure. Any system failure, accident or security breach that causes interruptions in our own, in collaborators' or in third-party service vendors' operations could result in a material disruption of our drug discovery and development programs. For example, the loss of clinical trial data from completed or future clinical trials could result in delays in our or our partners' regulatory approval efforts and significantly increase our costs in order to recover or reproduce the lost data. To the extent that any disruption or security breach results in a loss or damage to our data or applications, or inappropriate disclosure of confidential or proprietary information, we may incur liability as a result, our drug discovery programs and competitive position may be adversely affected and the further development of our product candidates may be delayed. Furthermore, we may incur additional costs to remedy the damages caused by these disruptions or security breaches.

Our employees may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements and insider trading.

We are exposed to the risk of employee fraud or other misconduct. Misconduct by employees could include intentional failures to comply with FDA regulations, to provide accurate information to the FDA, to comply with manufacturing standards we have established, to comply with federal and state healthcare fraud and abuse laws and regulations, or to report financial information or data accurately or disclose unauthorized activities to us. In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Employee misconduct could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. We have adopted a Code of Business Conduct and Ethics, but it is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against us,

and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of significant civil, criminal, and administrative sanctions, and our reputation.

In addition, during the course of our operations our directors, executives, and employees may have access to material, nonpublic information regarding our business, our results of operations, or potential transactions we are considering. We may not be able to prevent a director, executive, or employee from trading in our common stock on the basis of, or while having access to, material, nonpublic information. If a director, executive, or employee was to be investigated or an action was to be brought against a director, executive, or employee for insider trading, it could have a negative impact on our reputation and our stock price. Such a claim, with or without merit, could also result in substantial expenditures of time and money, and divert attention of our management team from other tasks important to the success of our business.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

Our principal laboratory and administrative facilities are located in Monrovia, California, which is located in the greater Los Angeles region. We currently lease 48,000 square feet of laboratory and office space in Monrovia, California. The original lease was for 24,000 square feet under a lease that was set to expire in June 2020. In April and September 2020, we entered into amendments to the lease that extended the term under the original terms through October 2020. In November 2020, we entered into an amendment to the lease which extends the lease to December 2025.

In July 2017, under a separate lease agreement, we entered into a lease for an additional 24,000 square feet of space in the same building. The lease includes a 64-month term for the additional 24,000 square feet with an option to renew for an additional five years at then market rates. The lease terms for the original space were not amended. In June 2017, we entered into a lease for 23,500 of office space in San Diego. The lease term has a 61-month term beginning August 2017 and includes an option to renew for an additional five years. We believe that our existing facilities are adequate to meet our current needs and that suitable additional alternative spaces will be available to meet future needs on commercially reasonable terms.

Item 3. Legal Proceedings.

None.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

Our common stock began trading on The Nasdaq Global Market on December 3, 2013 under the symbol "XNCR." Prior to such time, there was no public market for our common stock. On February 16, 2021, the closing price for our common stock as reported on the Nasdaq Global Market was $50.09.

Holders of Record

As of February 16, 2021, we had 57,945,225 shares of common stock outstanding held by approximately 185 stockholders of record. The actual number of stockholders is greater than this number of record holders and includes stockholders who are beneficial owners, but whose shares are held in street name by brokers and other nominees. This number of holders of record also does not include stockholders whose shares may be held in trust by other entities.

Dividend Policy

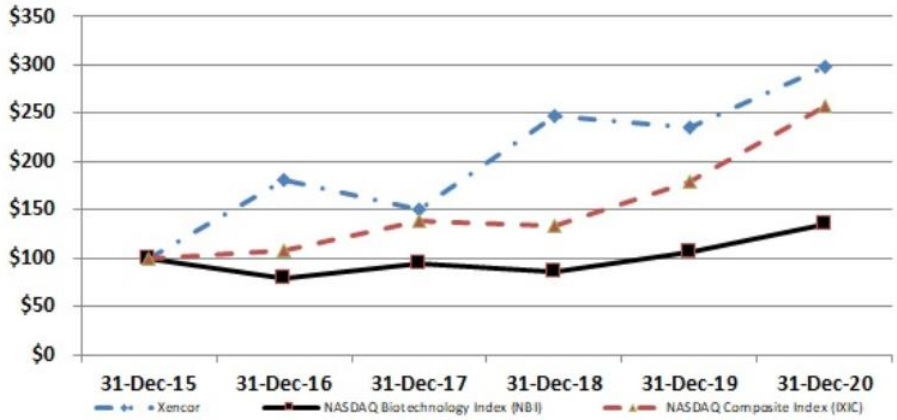
We have never declared or paid any cash dividends on our common stock. We currently intend to retain all available funds and any future earnings to support our operations and finance the growth and development of our business. We do not intend to pay cash dividends on our common stock for the foreseeable future. Any future determination related to our dividend policy will be made at the discretion of our Board of Directors and will depend upon, among other factors, our results of operations, financial condition, capital requirements, contractual restrictions, business prospects and other factors our Board of Directors may deem relevant.

Securities Authorized for Issuance Under Equity Compensation Plans

Information about our equity compensation plans is incorporated herein by reference to Item 12 of Part III of this Annual Report.

Performance Graph

The following graph shows a comparison from December 31, 2015 through December 31, 2020 of the cumulative total return for our common stock, the Nasdaq Biotechnology Index (NBI) and the Nasdaq Composite Index (CCMP). The graph assumes an initial investment of $100 on December 31, 2015 and assumes reinvestment of the full amount of all dividends, if any. The comparisons in the graph are not intended to forecast or be indicative of possible future performance of our common stock.



The performance graph shall not be deemed to be incorporated by reference by means of any general statement incorporating by reference this Form 10-K into any filing under the Securities Act of 1933, as amended or the Exchange Act, except to the extent that we specifically incorporate such information by reference, and shall not otherwise be deemed filed under such acts.

Recent Sales of Unregistered Securities

There were no sales of unregistered securities during the year ended December 31, 2020.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

None.

Item 6. Selected Financial Data.

The selected financial data set forth below as of December 31, 2020, and 2019, and for the years ended December 31, 2020, 2019, and 2018, are derived from our audited financial statements included elsewhere in this Annual Report. This information should be read in conjunction with those financial statements and notes thereto and with "Management's Discussion and Analysis of Financial Condition and Results of Operations." The selected financial data set forth below as of December 31, 2017 and 2016 are derived from our audited financial statements that are contained in reports previously filed with the SEC, not included herein. Periods prior to 2018 have been revised to reflect the adoption of Accounting Standards Codification Topic 606 (ASC 606) related to changes in standards for revenue recognition. (Amounts are in thousands, except share and per share amounts).

	Year Ended December 31,				
	2020	**2019**	**2018**	**2017**	**2016**
Statement of Operations:					
Revenues	$ 122,694	$ 156,700	$ 40,603	$ 46,150	$ 109,020
Operating expenses:					
Research and development	169,802	118,590	97,501	71,772	51,872
General and administrative	29,689	24,286	22,472	17,501	13,108
Total operating expenses	199,491	142,876	119,973	89,273	64,980
Income (loss) from operations	(76,797)	13,824	(79,370)	(43,123)	44,040
Other income (expenses)					
Interest income, net	7,264	13,619	9,086	4,181	2,070
Other income (expense)	200	(256)	(125)	(7)	6
Total other income, net	7,464	13,363	8,961	4,174	2,076
Net income (loss) before tax	(69,333)	27,187	(70,409)	(38,949)	46,116
Income tax expense (benefit)	—	312	—	(463)	991
Net income (loss) attributable to common stockholders	$ (69,333)	$ 26,875	$ (70,409)	$ (38,486)	$ 45,125
Other comprehensive income (loss)					
Net unrealized gain (loss) on marketable securities	(1,087)	2,132	837	(367)	(925)
Comprehensive income (loss)	$ (70,420)	$ 29,007	$ (69,572)	$ (38,853)	$ 44,200
Net income (loss) per share attributed to common stockholders [(1)]:					
Basic	$ (1.21)	$ 0.48	$ (1.31)	$ (0.82)	$ 1.09
Diluted	$ (1.21)	$ 0.46	$ (1.31)	$ (0.82)	$ 1.07
Weighted average shares of common stock used in computed net income (loss) attributable to common stockholders:					
Basic	57,212,737	56,531,439	53,942,116	46,817,756	41,267,329
Diluted	57,212,737	58,467,880	53,942,116	46,817,756	42,388,867

(1) See Note 1 to our Annual Financial Statements appearing elsewhere in this document for a description of the method used to calculate basic and diluted income (loss) per common share.

	As of December 31, (in thousands)				
	2020	2019	2018	2017	2016
Balance Sheet Data:					
Cash, cash equivalents and marketable securities	$ 604,033	$ 601,308	$ 530,469	$ 363,328	$ 403,476
Working capital	516,611	491,847	261,874	158,229	50,720
Patents, licenses, and other intangible assets, net	15,977	14,421	11,969	11,148	10,362
Total assets	703,244	670,250	576,732	390,202	429,263
Deferred revenue	92,615	47,131	40,079	60,118	80,168
Total stockholders' equity	$ 572,444	$ 593,201	$ 521,681	$ 316,464	$ 337,933

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

You should read the following discussion and analysis together with "Item 6. Selected Financial Data" and our financial statements and related notes included elsewhere in this Annual Report. The following discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those expressed or implied in any forward-looking statements as a result of various factors, including those set forth under the caption "Item 1A. Risk Factors."

Overview

We are a clinical-stage biopharmaceutical company focused on discovering and developing engineered monoclonal antibody and cytokine therapeutics to treat patients with cancer and autoimmune diseases who have unmet medical needs. We are advancing a broad portfolio of clinical-stage drug candidates from our proprietary XmAb® technology platforms. We use our protein engineering capabilities to increase our understanding of protein structure and interactions and to design new XmAb technologies and development candidates with improved properties. In contrast to conventional approaches to antibody design, which focus on the segment of antibodies that interact with target antigens, our protein engineering efforts and the XmAb technologies are focused on the Fc domain, the part of an antibody that interacts with multiple segments of the immune system and controls antibody structure. The Fc domain is constant and interchangeable among antibodies, and our engineered Fc domains, the XmAb technology, can be readily substituted for natural Fc domains.

Our protein engineering capabilities and XmAb technologies enable us and our partners to develop antibodies and biotherapeutic drug candidates with improved properties and function, which can provide innovative approaches to treating disease and potential clinical advantage over other treatment options. For example, our capabilities have enabled us to develop an antibody scaffold to rapidly create novel bispecific antibodies that bind two different targets simultaneously, creating entirely new biological mechanisms. Other applications of our XmAb technologies enhance antibody performance by increasing immune inhibitory activity, improving cytotoxicity, extending circulating half-life and stabilizing novel protein structures, such as engineered cytokines. Currently, there are two marketed drugs that have been developed with our XmAb technologies.

Refer to Part I, Item 1, "XmAb Bispecific Technologies" and "Other XmAb Fc Technologies" in the description of our business included in this Annual Report on Form 10-K for a discussion of our core Fc technology platforms.

COVID-19

We are closely monitoring the COVID-19 pandemic and continue to evaluate its impact on all aspects of our business, including how it will affect our partners, collaborations, supply chains and research and development operations. While the pandemic did not significantly disrupt our business during the year ended December 31, 2020, the evolving nature of the pandemic prevents us from reasonably predicting how the pandemic will affect our financial condition, results of operations and cash flows due to numerous uncertainties. These uncertainties include the scope, severity and duration of the pandemic, the actions taken to contain the pandemic or mitigate its impacts and the direct

and indirect economic effects of the pandemic and containment measures, among others. Many states, including California, where we are headquartered and where our principal place of business is located, and cities therein have instituted quarantines, restrictions, rules and guidelines that affect the continued operation of businesses. Other countries and states where we conduct manufacturing of our drug product, testing activities and clinical sites where patients are enrolled in our clinical trials have enacted similar restrictions that could affect our ability to conduct our drug candidate development and clinical operations.

The potential impacts on our business, revenue, clinical studies and research and development activities of the COVID-19 pandemic include:

- Business: Our broad protein engineering capabilities and technologies are uniquely suited to provide us with opportunities to identify and enhance compounds that may target the novel coronavirus and potentially treat patients with COVID-19. Our partner Vir Biotechnology, Inc. is evaluating VIR-7831, an antibody that targets the SARS-CoV-2 virus in a Phase 3 study. VIR-7831 incorporates our Xtend Fc technology for longer duration of action. VIR-7832, which also targets the SARS-CoV-2 virus, also incorporates Xtend technology and is in the preclinical stages of development.

- Revenue: We receive upfront payments, milestone payments and royalties from licensing our XmAb technologies and drug candidates. The COVID-19 pandemic has not adversely affected our ability to generate revenues for the year ended December 31, 2020. During the year, we received $165 million from our partnerships and collaborations including those with MorphoSys, Alexion, Gilead, Janssen, Aimmune and Omeros.

  Our ability to earn revenue from these and other partnerships is dependent on the ability of our partners to generate sales from products, such Ultomiris® and Monjuvi®, the ability of our partners to advance their programs through regulatory approval, and the ability of our partners to advance our partnered programs into later stages of development, which provide us with potential milestone payments. If the pandemic continues for an extended period and adversely affects the sales or clinical, development and regulatory progress of partnered programs, the amount of revenue we could earn would be adversely affected.

- Clinical studies: We are currently enrolling patients in six clinical programs, and our partner Genentech is enrolling patients in the Phase 1 study of our co-development program XmAb306 (also known as RG6323). Many partners are also enrolling patients in clinical trials with drug candidates that incorporate one or more of our XmAb technologies. Although the COVID-19 pandemic has not materially affected the development of our clinical programs for the year ended December 31, 2020, some of our clinical programs temporarily experienced slower patient enrollment, and the initiations of new studies for certain programs have been delayed as a result of the COVID-19 pandemic. These delays have not broadly affected the status of our portfolio programs and have been limited to specific trials and specific sites. Many clinical sites have delayed starting new clinical trials and others have postponed enrollment to address the pandemic.

- Research and development activities: We require all non-laboratory employees to work remotely, and we have implemented additional health, safety and environmental procedures for all onsite laboratory research employees. We believe we provide a safe and healthy environment for our onsite employees who have been able to continue research operations, following an initial period of reduced onsite activities while new policies and procedures were developed and implemented. As of December 31, 2020, these activities have continued without interruption from the pandemic.

  Our development activities include initiating a Phase 1 study of XmAb564 in healthy volunteers and conducting IND-enabling studies for XmAb819. Several other bispecific antibody and cytokine programs are in earlier stages of development. During the third quarter of 2020, the manufacturers of our drug supplies notified us of critical shortages of materials used in their manufacturing processes due to pandemic-related reallocation of resources. The shortages will not affect our current clinical programs as we have sufficient drug supply to continue the ongoing trials without interruption. However, the shortages

have extended the development timelines of early-stage development candidates, including XmAb819, by three to six months based on current information from our vendors. The development timelines for additional early-stage programs and ongoing clinical programs could be affected if the supply interruption extends longer than current estimates.

Advancements in our Clinical Portfolio of XmAb Bispecific Antibodies and Cytokine Candidates

Our modular XmAb bispecific technology and protein engineering capabilities enable us to rapidly advance multiple drug candidates into clinical development. We and our partners are currently enrolling Phase 1 studies for seven wholly owned or co-development candidates to treat patients with many different types of cancer, and an eighth, to be developed for patients with autoimmune disease, is expected to enter clinical development in early 2021.

Plamotamab (CD20 x CD3): At the ASH Annual Meeting in December 2019, we presented preliminary safety and anti-tumor activity from the Phase 1 dose-escalation study of plamotamab in B-cell malignancies, including from patients with relapsed or refractory NHL. The early results indicated that plamotamab was generally well tolerated and demonstrated encouraging clinical activity as a monotherapy. We are currently enrolling patients in the ongoing monotherapy dose-escalation study and plan to initiate additional studies in 2021.

In November 2020, we entered a strategic clinical collaboration with MorphoSys AG to investigate the chemotherapy-free triple combination of plamotamab, tafasitamab and lenalidomide in patients with relapsed or refractory DLBCL, first-line DLBCL and relapsed or refractory FL. Plamotamab, which redirects T cells to tumors, and tafasitamab, a CD19-directed XmAb antibody, combine powerful and distinct immune pathways, and this collaboration is designed to generate new clinical insights and accelerate development timelines for the program. MorphoSys and Incyte will provide tafasitamab for the studies, which we will sponsor and fund. Tafasitamab is co-commercialized in the U.S. by MorphoSys and Incyte and is marketed as Monjuvi. Monjuvi, the second product with XmAb technology to be approved for commercial marketing, was approved by the U.S. FDA in July 2020.

XmAb717 (PD-1 x CTLA-4): In November 2020, we presented updated data from the Phase 1 study of XmAb717 in patients with multiple types of advanced solid tumors at the Annual Meeting of SITC. Five cohorts in the expansion portion of the study enrolled patients with melanoma, RCC, NSCLC, CRPC and other cancers without approved checkpoint therapies. XmAb717 was generally well-tolerated, and the most common treatment-related adverse events were irAEs; however, rates of irAEs, including colitis, were lower than typically observed with CTLA-4 blockade. The efficacy analysis included evaluable patients at the recommended dose level, 10.0 mg/kg. A complete response was observed in a patient with melanoma, and partial responses were observed in multiple tumor types, including melanoma, RCC, NSCLC, CRPC and ovarian cancer. The objective response rate across cohorts was 19%. Across the expansion cohorts, approximately half of evaluable patients had at least 10% tumor shrinkage from baseline assessments, and nearly all these reductions occurred in patients with prior checkpoint inhibitor treatment. The median duration of response was 119 days at the time of the data cut off, and 24 patients remained on treatment as of September 30, 2020.

Of nine patients with prostate cancer who had baseline and follow-up PSA assessments, one achieved a PSA reduction of greater than 50 percent. Two additional patients achieved reductions of greater than 30 percent, one of whom had an unconfirmed partial response by RECIST. Six of these nine patients remained on therapy as of the cut-off date. In the first half of 2021, we plan to initiate a Phase 1b study of XmAb717 for patients with certain molecular subtypes of CRPC, as a monotherapy or in combination depending on the subtype, as these patients represent a high unmet medical need.

Vibecotamab (CD123 x CD3): In December 2020, we presented updated data from the Phase 1 study of vibecotamab in patients with relapsed or refractory AML at the ASH Annual Meeting. While CRS was the most common adverse event, the majority was observed in the first dose and was generally manageable with premedication. The efficacy analysis included evaluable patients who received a dose of at least 0.75 mcg/kg, completed at least the first cycle of treatment and had at least one post-treatment disease assessment. Two patients achieved CR, and three patients achieved a CR with incomplete hematologic recovery. Additionally, two patients reached a morphologic leukemia-free state, and one patient experienced partial remission, as assessed by the investigator. The ORR was 15%. Responses

appeared to be associated with lower baseline disease burden, indicated by patients with lower blast percentages and lower PD1 expression on CD8+ and CD4+ T cells. Seven responders had a baseline blast count less than or equal to 25% blasts in bone marrow. The ORR increased to 26% when using this threshold to define the population with low disease burden for the analyses. We are continuing the dose escalation study and are reviewing data with our partner, Novartis, in planning additional studies of vibecotamab.

Tidutamab (SSTR2 x CD3): In October 2020, we presented initial dose-escalation data from the ongoing Phase 1 study in patients with NET. Tidutamab was generally well tolerated at the recommended dose identified for the expansion portion of the study. Peripheral blood biomarkers indicated tidutamab induced acute and sustained T-cell activation at this dose, and a dose-dependent increase in proliferation and activation markers of CD8+ T cells was observed, which is consistent with tidutamab's mechanism of action. The best overall response was stable disease in the analysis to describe clinical activity, and the median duration of treatment was approximately seven months. Completion of enrollment and longer follow-up are required to evaluate progression-free survival and the clinical utility of tidutamab for patients with NETs, which are an indolent, slow-growing tumor type. Considering the biomarker analysis from this study and tidutamab's encouraging safety profile, we plan to initiate an additional clinical study for patients with Merkel cell carcinoma and small cell lung cancer, SSTR2-expressing tumor types known to be responsive to immunotherapy, in early 2021.

XmAb306/RO7310729 (IL15/IL15Rα-Fc Cytokine): In March 2020, Genentech dosed the first patient in a Phase 1 dose-escalation study evaluating XmAb306, our first cytokine candidate, as a single agent and in combination with atezolizumab for patients with advanced solid tumors. XmAb306 is an IL15/IL15Rα-Fc fusion protein that incorporates our Xtend extended half-life technology, and we are co-developing this program, as well as other potential IL-15 programs, in collaboration with Genentech. We retain the right to perform clinical studies with XmAb306, as well as with other collaboration programs developed in combination with other therapeutic agents, subject to certain restrictions and at our sole expense. Genentech has dosed cohorts of the Phase 1 study of XmAb306 in combination with atezolizumab and at least one additional combination study is currently being planned.

XmAb564 (IL2-Fc Cytokine): XmAb564 is a wholly owned IL2-Fc fusion that we intend to develop for the treatment of patients with autoimmune diseases. In January 2021, the IND application for XmAb564 was allowed by the FDA, and we plan to initiate a Phase 1 study in healthy volunteers in early 2021.

XmAb698 (CD38 x CD3): In 2015, Amgen licensed rights to our preclinical CD38 x CD3 bispecific antibody program and developed AMG 424, which they evaluated in a Phase 1 study. Amgen terminated the program in the second quarter of 2020, indicating it was stopped for adverse events that were likely CD38 target related. Under the terms of the agreement, the rights to the CD38 program, including AMG 424, reverted to us. A new study is currently being planned to start later this year, for the program, which we have renamed XmAb698.

Additional wholly owned XmAb bispecific antibody programs in Phase 1 clinical studies include XmAb841 (CTLA-4 x LAG-3) and XmAb104 (PD-1 x ICOS). We continue enrolling patients with advanced solid tumors to these studies.

Advancements Expanding XmAb Bispecific Platforms

We conduct further research into the function and application of antibody Fc domains in order to expand the scope of our XmAb technology platforms and identify additional XmAb drug candidates. We use the modularity of our XmAb bispecific Fc technology to build bispecific antibodies and cytokines in a variety of formats, and we recently introduced CD3 bispecific antibodies of a mixed valency format, the XmAb 2+1 bispecific antibody. XmAb 2+1 bispecific antibodies may preferentially kill tumor cells with high target expression, which may be especially beneficial in designing antibodies that target solid tumors. This selectivity potentially empowers CD3 bispecifics to address an expanded set of tumor antigens. Our lead XmAb 2+1 bispecific antibody candidate is XmAb819, a first-in-class ENPP3 x CD3 bispecific antibody. ENPP3 is a tumor-associated antigen in renal cell carcinoma (RCC) and exhibits low level expression on normal tissues. We presented preclinical data from this program and two other XmAb 2+1 bispecific antibody programs at the AACR Virtual Annual Meeting II in June 2020, and we plan to submit an IND application for XmAb819 in 2021.

Additionally, we have engineered CD28 bispecific antibodies to provide conditional CD28 co-stimulation of T cells, activating them when bound to tumor cells. Targeted CD28 bispecific antibodies may provide conditional co-stimulation of T cells, for example, to T cells recognizing neoantigens or in concert with CD3 T-cell engaging bispecific antibodies. Our CD28 platform is also the subject of our collaboration with Janssen Biotech, Inc., announced in December 2020, where we are creating and characterizing CD28 bispecific antibody candidates against a prostate tumor target specified by Janssen. We are also advancing our wholly owned CD28 candidates including our lead candidate, a B7-H3 x CD28 bispecific antibody designed to be evaluated for the treatment of patients with a range of solid tumors, and it is currently advancing through preclinical development. We presented preclinical data from the CD28 program at the SITC Annual Meeting in November 2020.

Progress Across Partnerships

A key part of our business strategy is to leverage our protein engineering capabilities, XmAb technologies and drug candidates with partnerships, collaborations and licenses. Through these arrangements we generate revenues in the form of upfront payments, milestone payments and royalties. For partnerships for our drug candidates, we aim to retain a major economic interest in the form of keeping major geographic commercial rights; profit-sharing; co-development options; and the right to conduct studies with drug candidates developed in the collaboration. The types of arrangements that we have entered with partners include product licenses, novel bispecific antibody collaborations, technology licensing agreements and strategic collaborations.

Product Licenses

Product licenses are arrangements in which we have internally developed drug candidates and, based on a strategic review, licensed partial or full rights to third parties to continue development and potential commercialization. We seek partners that can provide infrastructure and resources to successfully develop our drug candidates, have a track record of successfully developing and commercializing medicines, or have a portfolio of development-stage candidates and commercialized medicines which could potentially be developed in rational combinations with our drug candidates.

The U.S. FDA approved Monjuvi (tafasitamab-cxix), the second product with XmAb technology to be approved for commercial marketing, in July 2020. Monjuvi is a CD19-directed cytolytic antibody indicated in combination with lenalidomide for the treatment of certain adult patients with relapsed or refractory DLBCL, and it was created and initially developed by us. Monjuvi is co-commercialized in the U.S. by MorphoSys and Incyte. The European Marketing Authorization Application for tafasitamab is currently under review by the European Medicines Agency. In 2020, we earned a total of $37.5 million in regulatory milestones and royalties of $1.5 million on net sales of Monjuvi.

In February 2020, we granted Aimmune Therapeutics, Inc., subsequently acquired by Nestlé S.A., an exclusive worldwide license to develop and commercialize the investigational humanized monoclonal antibody XmAb7195, which has been renamed AIMab7195. Aimmune indicated plans to develop AIMab7195 as an adjunctive treatment with its pipeline of oral immunotherapies to explore treatment outcomes in patients with food allergies. Nestlé is solely responsible for costs related to the development and potential commercialization of AIMab7195, and additional studies of AIMab7195 are planned. In 2020, Xencor received an upfront payment of $9.6 million in cash and Aimmune stock.

In October 2020, a second IL-15 cytokine candidate, which is engineered with a target-specific binding arm, was approved for further preclinical exploration under our Genentech collaboration. As a Collaboration Product under the agreement, we share in 45% of development and commercialization costs, while Genentech will pay for commercial launch costs, and we will receive a 45% share of net profits from sales from all collaboration products, while also sharing in the net losses at the same percentage rate. We are eligible to receive up to $180.0 million in clinical milestone payments for this candidate.

In November 2020, we entered into an agreement with a newly formed, privately held biotechnology company to which we licensed the exclusive worldwide rights to develop and commercialize three preclinical-stage Fc-engineered drug candidates for autoimmune disease: XmAb6755, XPro9523 and XmAb10717. These programs incorporate an Xtend Fc Domain, a Cytotoxic Fc Domain, or both. We received a 15% equity interest in the company, and we will also receive royalties on net sales of approved products in the mid-single digit to mid-teen percentage range.

Novel Bispecific Antibody Collaborations

Novel bispecific antibody collaborations are arrangements in which our partner seeks to create a bispecific antibody using one or more of our XmAb bispecific technologies. Our partners provide an antibody or a tumor-associated antigen, and we conduct limited research and development to create potential bispecific antibody candidates for further development and commercialization by our partners.

In November 2020, we entered an agreement with Janssen Biotech, Inc., focused on the discovery of XmAb bispecific antibodies against CD28, an immune co-stimulatory receptor on T cells, and an undisclosed prostate tumor target, for the potential treatment of patients with prostate cancer. Additionally, we have a right to access select, predefined agents from Janssen's portfolio of clinical-stage drug candidates and commercialized medicines to evaluate potential combination therapies in prostate cancer with agents in our own pipeline, subject to some limitations. Janssen has the same right with our portfolio to evaluate potential combination therapies in prostate cancer, as well. The ability to study combinations of therapies from both companies' prostate cancer portfolios leverages our broad clinical pipeline and Janssen's leading prostate cancer therapeutics portfolio. In 2020, we received a $50 million upfront payment from Janssen.

In 2020, we received a $2.5 million milestone payment related to our agreement with Astellas Pharma, Inc., which has advanced an XmAb bispecific candidate into IND enabling studies. Under our March 2019 agreement with Astellas, we applied our XmAb bispecific Fc technology to an antigen pair provided by Astellas and generated bispecific antibody candidates for further development by Astellas. In 2019, we completed delivery of the bispecific candidates to Astellas for further development and potential commercialization.

Other XmAb bispecific antibodies being developed by our partners include Amgen's AMG 509, a STEAP1 x CD3 XmAb 2+1 bispecific antibody, which being evaluated in a Phase 1 study for patients with prostate cancer, and an undisclosed bispecific antibody candidate being developed by Novartis, which is also in Phase 1 development.

Technology License Agreements

We enter into technology licensing agreements in which we license access to one or more of our XmAb Fc technologies on a restricted basis, typically to an XmAb Cytotoxic Fc Domain and/or the Xtend Fc Domain. Our partners are responsible for all research, development and commercialization activities of the drug candidates. The plug-and-play nature of XmAb technologies allows us to license access to our platforms with limited or no internal research and development activities.

Alexion's Ultomiris uses Xtend Fc technology for longer half-life. Ultomiris has received marketing authorizations from regulatory agencies in the U.S., Europe and Japan for the treatment of adult patients with paroxysmal nocturnal hemoglobinuria (PNH) and for patients with atypical hemolytic uremic syndrome (aHUS). Alexion is also evaluating Ultomiris in a broad late-stage development program across many indications in neurology and nephrology. In 2020, we earned $16.2 million in royalties and $10.0 million in sales-based milestone payments from Alexion.

In January 2020, we entered an agreement with Gilead Sciences, Inc., under which Gilead has access to our Xtend and Cytotoxic XmAb Fc technologies for developing and commercializing elipovimab (GS-9722), Gilead's effector-enhanced broadly neutralizing anti-HIV antibody, as well as up to three additional anti-HIV antibodies. In 2020, Gilead exercised all three options. Gilead has advanced elipovimab and GS-9723 into Phase 1 clinical studies. In 2020, we received $13.5 million in upfront and option payments from Gilead.

In March 2020, we entered a second agreement with Vir Biotechnology, Inc., under which Vir has non-exclusive access to our Xtend Fc technology to extend the half-life of novel antibodies being investigated as potential treatments for patients with COVID-19, as well as prophylactic use against infection from the SARS-CoV-2 virus. Vir has commenced a Phase 3 clinical study of VIR-7831 for the early treatment of COVID-19 patients who are at high risk of hospitalization and has indicated plans to initiate a clinical study of VIR-7832 in the near future.

In August 2020, we entered into an agreement with Omeros Corporation, under which we provided Omeros a non-exclusive license to access our Xtend Fc technology, an exclusive license to apply Xtend Fc technology to an identified antibody and options to apply Xtend Fc technology to three additional antibodies. In 2020, we received an upfront payment of $5.0 million from Omeros.

In December 2020, we entered into an agreement with MiRagen Therapeutics, Inc., in which we provided MiRagen a non-exclusive license to our Xtend Fc technology and an exclusive license to apply our Xtend Fc technology to antibodies targeting IGF-1R. MiRagen subsequently changed its name to Viridian Therapeutics, Inc. We received an upfront payment of 322,407 shares of Viridian common stock valued at $6.0 million.

Strategic Collaborations

We enter into strategic collaborations where we can create synergies between our partners' strengths and assets and our own protein engineering capabilities, XmAb technologies and XmAb drug candidates. Through these arrangements we seek to create new drug candidates, investigate novel combination therapies and potentially identify additional indications for our portfolio of XmAb drug candidates.

In July 2020, we entered an agreement with Atreca, Inc., to research, develop and commercialize novel CD3 bispecific antibodies as potential therapeutics in oncology. We are conducting a three-year research program in which Atreca will provide antibodies against novel tumor targets through its discovery platform from which we will engineer XmAb bispecific antibodies that bind to the CD3 receptor on T cells. Up to two joint programs are eligible to be mutually selected for further development and commercialization, with each partner sharing 50% of costs and profits. Each company has the option to lead development, regulatory and commercialization activities for one of the two joint programs. In addition, the agreement allows each partner the option to pursue up to two programs independently, with a mid- to high-single digit percent royalty payable on net sales to the other partner.

In September 2020, we entered an agreement with The University of Texas MD Anderson Cancer Center, under which we will design and execute new investigator-sponsored clinical studies with our portfolio of XmAb drug candidates. We are committing $10.0 million in funding and supporting these studies over an initial five-year term.

In November 2020, we entered the clinical collaboration with MorphoSys and Incyte to investigate the combination of plamotamab, tafasitamab and lenalidomide in patients with relapsed or refractory DLBCL, first-line DLBCL and relapsed or refractory follicular lymphoma (FL).

In December 2020, we entered into a second agreement with MD Anderson to develop novel CD3 bispecific antibody therapeutics for the potential treatment of patients with cancer. MD Anderson will work to identify and develop potential antibodies, and we will apply its our Fc bispecific technology to create therapeutic candidates. MD Anderson will then conduct and fund all preclinical activities to advance candidates toward clinical studies. We have certain exclusive options to license worldwide rights to develop and commercialize potential new medicines arising from the collaboration.

Refer to Part IV, Item 15, Note 10, "Collaboration and Licensing Agreements" of the notes to our consolidated financial statements included in this Annual Report on Form 10-K for a description of the key terms of our arrangements.

Financial Operations Overview

Revenues

Our revenues to date have been generated primarily from our collaboration agreements, our product licensing agreements, and our technology licensing agreements. Revenue recognized from our collaboration and product licensing agreements includes non-refundable upfront payments, milestone payments and royalties on net sales of approved products while revenue from our technology licensing agreements includes upfront payments, option payments to obtain commercial licenses, milestone payments and royalties on net sales of approved products. Since our inception through December 31, 2020, we have generated $545.6 million in revenues under the various product development partnership and technology license arrangements. Several of our product development partnership and technology license agreements provide us the opportunity to earn future milestone payments, royalties on product sales and option exercise payments.

Summary of Collaboration and Licensing Revenue by Partner

The following is a comparison of collaboration, product licensing and technology licensing revenue for the years ended December 31, 2020, 2019 and 2018 (in millions):

	Year Ended December 31,		
	2020	**2019**	**2018**
Aimmune	$ 9.6	$ —	$ —
Amgen	—	5.0	0.6
Alexion	26.2	13.0	20.0
Astellas	3.5	14.0	—
Genentech	3.5	113.9	—
Gilead	13.5	—	—
MiRagen/Viridian	6.0	—	—
MorphoSys	39.0	—	—
Novartis	—	10.0	20.0
Omeros	5.0	—	—
Vir	0.3	0.8	—
Private BioCo	16.1	—	—
Total	$ 122.7	$ 156.7	$ 40.6

Research and Development Expenses

The following is a comparison of research and development expenses for the years ended December 31, 2020, 2019, and 2018 (in millions):

	Year Ended December 31,		
	2020	**2019**	**2018**
External research and development expenses	$ 94.2	$ 52.2	$ 48.2
Internal research and development expenses	54.7	43.4	36.5
Stock based compensation	20.9	23.0	12.8
Total	$ 169.8	$ 118.6	$ 97.5

Internal research and development expenses consist primarily of salaries, benefits, related personnel costs, supplies, and allocated overhead including facility costs. External research and development expenses include preclinical testing costs, clinical trial costs and fees paid to external service providers. External service providers include contract research organizations (CRO) and contract manufacturing organizations (CMO) to conduct clinical trials, manufacturing and process development, IND-enabling toxicology testing and formulation of clinical drug supplies. We expense research and development expenses as incurred. We account for nonrefundable advance payments for goods and services that will be used in future research and development activities as expense when the service has been performed or when the goods have been received. We estimate contract manufacturing, preclinical study and clinical trial expenses based on the services performed pursuant to the contracts with manufacturing, research institutions and clinical research organizations that manufacture and conduct and manage preclinical studies and clinical trials on our behalf based on the actual time and expenses incurred by them. We accrue expenses related to clinical trials based on the level of patient enrollment and activity according to the related agreement. We monitor patient enrollment levels and related activity to the extent reasonably possible and adjust estimates accordingly. Our estimates of clinical trial expense have fluctuated on a period-to-period basis due to changes in the stage of the clinical trials and patient enrollment levels. We expect to experience a continuing pattern of fluctuations in clinical trial expenses as current clinical trials are completed and as we initiate additional and later stage clinical trials. To date, we have not experienced significant differences between our periodic estimates of clinical trial expense and the actual costs incurred. We expect changes in future clinical trial expenses to be driven by changes in service provider costs and changes in clinical stage and patient enrollment.

We expect that our future research and development expenses will increase overspending levels in recent years if we are successful in advancing our current clinical-stage drug candidates or any of our preclinical programs into later stages of clinical development. The process of conducting preclinical studies and clinical trials necessary to obtain regulatory approval is costly and time-consuming. We or our partners may never succeed in achieving marketing approval for any of our product candidates. Numerous factors may affect the probability of success for each product candidate, including preclinical data, clinical data, competition, manufacturing capability, approval by regulatory authorities and commercial viability.

Our research and development operations are conducted such that design, management and evaluation of results of all of our research and development is performed internally, while the execution of certain phases of our research and development programs, such as toxicology studies in accordance with Good Laboratory Practices (GLP), and manufacturing in accordance with current Good Manufacturing Practices (cGMP), is accomplished using CROs and CMOs. We account for research and development costs on a program-by-program basis except in the early stages of research and discovery, when costs are often devoted to identifying preclinical candidates and improving our discovery platform and technologies, which are not necessarily allocable to a specific development program. We assign costs for such activities to distinct projects for preclinical pipeline development and new technologies. We allocate research management, overhead, commonly used laboratory supplies and equipment, and facility costs based on the percentage of time of full-time research personnel efforts on each program.

The following is a comparison of research and development expenses for the years ended December 31, 2020, 2019 and 2018 (in millions):

	Year Ended December 31,		
	2020	2019	2018
Product programs:			
Obexelimab (XmAb5871)	$ 2.9	$ 17.5	$ 23.0
Bispecific programs:			
CD3 programs:			
*Vibecotamab**	12.4	11.6	9.3
Plamotamab	33.8	12.3	5.6
Tidutamab	14.9	11.4	7.8
XmAb819 (ENPP3 x CD3)	7.4	0.5	—
Total CD3 programs	68.5	35.8	22.7
Tumor microenvironment (TME) activator programs:			
XmAb717	26.4	13.0	8.7
XmAb104	13.3	7.8	14.5
XmAb841	10.6	7.4	9.9
Total TME activator programs	50.3	28.2	33.1
Cytokine programs:			
*XmAb306/RG6323**	12.0	17.0	7.7
XmAb564	15.4	5.0	—
Total cytokine programs	27.4	22.0	7.7
Subtotal bispecific programs	146.2	86.0	63.5
Other, research and early stage programs	20.7	15.1	11.0
Total research and development expenses	$ 169.8	$ 118.6	$ 97.5

*Includes net payments to, and reimbursements from our partners pursuant to agreements that include cost-sharing arrangements.

General and Administrative Expenses

General and administrative expenses consist primarily of salaries and related benefits, including stock-based compensation related to our executive, finance, business development, and support functions. Other general and administrative expenses include intellectual property costs, facility costs, and professional fees for auditing, tax and legal services.

Other Income, Net

For the years ended December 31, 2020, 2019 and 2018, other income, net consists primarily of interest income from our investments during the years.

Critical Accounting Policies, Significant Judgments and Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States (GAAP). The preparation of our financial statements in conformity with GAAP requires our management to make estimates and assumptions that affect the amounts and disclosures reported in the financial statements and

accompanying notes. Actual results could differ materially from those estimates. Our management believes judgment is involved in determining revenue recognition, the fair value-based measurement of stock-based compensation, the fair value estimate of marketable securities, the capitalization and recoverability of intellectual property costs, valuation of deferred tax assets and accruals. Our management evaluates estimates and assumptions as facts and circumstances dictate. As future events and their effects cannot be determined with precision, actual results could differ from these estimates and assumptions, and those differences could be material to the financial statements. If our assumptions change, we may need to revise our estimates, or take other corrective actions, either of which may also have a material adverse effect on our statements of operations, liquidity and financial condition.

While our significant accounting policies are described in more detail in Note 1 to our financial statements included elsewhere in this Annual Report, we believe the following accounting policies to be critical to the judgments and estimates used in the preparation of our financial statements.

Revenue Recognition

We have, to date, earned revenue from research and development collaborations, which may include research and development services, licenses of our internally developed technologies, licenses of our internally developed drug candidates, or combinations of these.

The terms of our license and research and development and collaboration agreements generally include non-refundable upfront payments, research funding, co-development reimbursements, license fees, and milestone and other contingent payments to us for the achievement of defined collaboration objectives and certain clinical, regulatory and sales-based events, as well as royalties on sales of any commercialized products.

The terms of our licensing agreements include non-refundable upfront fees, contractual payment obligations for the achievement of pre-defined preclinical, clinical, regulatory and sales-based events by our partners. The licensing agreements also include royalties on sales of any commercialized products by our partners.

In certain transactions for licensing of our technologies or our product candidates, we may receive an equity interest from our partners as full or partial consideration for an upfront payment due under the arrangement. We record the initial equity at its fair value and mark the value to market quarterly for publicly traded securities and review for impairment for equity that is not publicly traded on a national exchange.

Capitalized Intellectual Property Costs

We capitalize and amortize third-party intellectual property costs such as amounts paid to outside patent counsel for filing, prosecuting and obtaining patents for our internally developed technologies and product candidates, to the extent such patents are deemed to have probable future economic benefit. We also capitalize amounts paid to third parties for licenses that we acquire for intellectual property or for research and development purposes where the technology has alternative uses. The net capitalized patents, licenses and other intangible assets as of December 31, 2020 and 2019 was $16.0 million and $14.4 million, respectively. We believe that these costs should be capitalized as the intellectual property portfolio creates the underlying property right to our technologies and product candidates and supports the upfront payments, licensing fees, milestone payments and royalties made by our collaboration partners for licensing our technologies and product candidates.

We begin amortization of capitalized patent costs during the period that we obtain a patent relating to the capitalized cost over the shorter of the patent life or the estimated economic useful life. Capitalized licensing costs are amortized beginning in the period that access to the license or technology is available and is amortized over the shorter of the license term or the estimated economic useful life of the licensed asset. Such amortization is recorded as general and administrative expenses.

On a regular basis we review the capitalized intellectual property portfolio and determine if there have been changes in the scientific or patent landscape that leads us to decide to abandon an in-process patent application or abandon a previously issued patent. While we confer with outside patent counsel, the decision to continue prosecuting

certain patent claims or abandon other claims are made by us based on our judgment and existing knowledge of our technology, current U.S. and foreign patent authority rulings and expected rulings, and scientific advances and patent filings by competitors operating in our technology or drug development field. We record an expense for the write-off of capitalized intangible assets in the period that the decision to abandon a claim or license is made. We also review the carrying value of capitalized licensing costs on a regular basis to determine if there have been any changes to the useful life or estimated amortization period over which the costs should be amortized. We recorded a charge for abandoned intangible assets of $0.5 million, $0.2 million and $0.2 million for the years ended December 31, 2020, 2019 and 2018, respectively. Such charges are reflected as general and administrative expenses.

We determine if there has been an impairment of our intangible assets which include the capitalized patent and licensing costs whenever events such as recurring operating losses or changes in circumstances indicate that the carrying amount of the assets may not be recoverable.

Accrued Research and Development Expenses

As part of the process of preparing our financial statements, we are required to estimate our accrued research and development expenses. This process involves reviewing contracts and purchase orders, reviewing the terms of our license agreements, communicating with our applicable personnel to identify services that have been performed on our behalf, and estimating the level of service performed and the associated cost incurred for the service when we have not yet been invoiced or otherwise notified of actual cost. The majority of our service providers invoice us monthly in arrears for services performed. We make estimates of our accrued expenses as of each balance sheet date based on facts and circumstances known to us at that time. We periodically confirm the accuracy of our estimates with the service providers and make adjustments if necessary. Examples of estimated accrued research and development expenses include fees to:

- CROs and other service providers in connection with clinical studies;
- contract manufacturers in connection with the production of and testing of clinical trial materials; and
- vendors in connection with preclinical development activities.

We base our expenses related to clinical studies on our estimates of the services received and efforts expended pursuant to contracts with multiple research institutions and contract research organizations that conduct and manage clinical studies on our behalf. The financial terms of these agreements are subject to negotiation, vary from contract to contract, and may result in uneven payment flows and expense recognition. Payments under some of these contracts depend on factors such as the successful enrollment of patients and the completion of clinical trial milestones. In accruing these costs, we estimate the time period over which services will be performed for which we have not been invoiced and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from our estimate, we adjust the accrual accordingly. Our understanding of the status and timing of services performed relative to the actual status and timing of services performed may vary and may result in our reporting changes in estimates in any particular period.

Income Taxes

Deferred tax assets and liabilities are determined based on differences between the financial reporting and tax basis of assets and liabilities and are measured using the enacted tax rates and laws that are expected to be in effect when the differences are expected to reverse. The effect on deferred tax assets and liabilities of a change in tax rates is recognized as income in the period that such tax rate changes are enacted. The measurement of a deferred tax asset is reduced, if necessary, by a valuation allowance if it is more likely than not that some portion or all of the deferred tax asset will not be realized. Financial statement recognition of a tax position taken or expected to be taken in a tax return is determined based on a more-likely-than not threshold of that position being sustained. If the tax position meets this threshold, the benefit to be recognized is measured as the largest amount that is more than 50% likely to be realized upon ultimate settlement. Our policy is to record interest and penalties related to uncertain tax positions as a component of

income tax expense. We have concluded that there are no material uncertain tax positions and have not recorded an income tax expense or liability for uncertain tax positions as of December 31, 2020.

On December 22, 2017, the Tax Cuts and Jobs Act of 2017 (TCJA) was enacted into law, which beginning in 2018, made several changes to U.S. corporate income tax provisions including a reduction in the U.S. corporate rate from a maximum rate of 35% to 21% effective January 1, 2018. The TCJA also allowed net operating losses incurred after January 1, 2018 to be carried forward indefinitely.

The other material change in our tax provision from the TCJA is elimination of the U.S. corporate alternative minimum tax (AMT) system and allowance for a tax refund for AMT credit carryovers as of December 31, 2017, which do not expire. We received a tax refund of $0.8 million in each of 2019 and 2020 related to federal AMT credit carryovers.

We recorded net deferred tax assets of $106.0 million as of December 31, 2020, which was fully offset by a valuation allowance due to uncertainties surrounding our ability to realize these tax benefits. The deferred tax assets are primarily comprised of deferred revenue, federal and state tax net operating loss (NOL) carryforwards and research and development tax credit carryforwards. As of December 31, 2020, we had cumulative net operating loss carryforwards for federal income tax purposes of approximately $213.6 million; $68.0 million of such losses were incurred prior to December 31, 2017 and $145.6 million were incurred in the years ending on or after December 31, 2018. We also had available tax credit carryforwards of $26.7 million for federal tax purposes. We had cumulative state tax loss carryforwards at December 31, 2020 of $161.4 million, and available state tax credit carryforwards of approximately $14.3 million, which can be carried forward to offset future taxable income, if any.

Our federal net operating loss carryforwards incurred prior to January 1, 2018 expire starting in 2026; state net operating loss carryforwards expire starting in 2035; and federal tax credit carryforwards begin to expire starting in 2020. Approximately $0.3 million of federal tax credits will expire if unused from 2020 through 2024.

No income tax expense or benefit was recorded for the year ended December 31, 2020. We recorded an income tax expense of $0.3 million related to state AMT for the year ended December 31, 2019, and no income tax expense or benefit was recorded for the year ended December 31, 2018.

Valuation of Stock-Based Compensation

We record the fair value of stock options and shares issued under our Employee Stock Purchase Plan (ESPP) to employees as of the grant date as compensation expense over the service period, which is generally the vesting period. For non-employees, we also record the fair value of stock options as of the grant date as compensation expense over the service period. We then periodically re-measure the awards to reflect the current fair value at each reporting period until the non-employee completes the performance obligation or the date on which a performance commitment is reached. Expense is recognized over the related service period.

We calculate the fair value of stock-based compensation awards using the Black-Scholes option-pricing model. The Black-Scholes option-pricing model requires the use of subjective assumptions, including volatility of our common stock, the expected term of our stock options, the risk-free interest rate for a period that approximates the expected term of our stock options and the fair value of the underlying common stock on the date of grant.

Common Stock Options Fair Value

We recognize stock-based compensation expense in accordance with the provisions of ASC Topic 718, *Compensation—Stock Compensation*. The use of a Black-Scholes model requires us to apply judgment and make assumptions and estimates that include the following:

- *Expected Volatility*—Volatility is a measure of the amount by which a financial variable such as a share price has fluctuated (historical volatility) or is expected to fluctuate (expected volatility) during a period.

- *Expected Dividend Yield*—We have never declared or paid dividends and have no plans to do so in the foreseeable future.

- *Risk-Free Interest Rate*—This is the U.S. Treasury rate for the week of each option grant during the year, having a term that most closely resembles the expected life of the option.

- *Expected Term*—This is the period of time that the options granted are expected to remain unexercised. Options granted have a maximum term of ten years and we have estimated the expected life of the option term to be between six and eight years. We use a simplified method to calculate the average expected term for employee awards.

Results of Operations

Comparison of the Years Ended December 31, 2020 and 2019

The following table summarizes our results of operations for the years ended December 31, 2020 and 2019 (in millions):

	Year ended December 31,		
	2020	2019	Change
Revenues:			
Research collaboration	$ 4.5	$ 16.3	$ (11.8)
Milestone	50.2	23.2	27.0
Licensing	50.2	112.2	(62.0)
Royalties	17.8	5.0	12.8
Total revenues	122.7	156.7	(34.0)
Operating expenses:			
Research and development	169.8	118.6	51.2
General and administrative	29.7	24.3	5.4
Total operating expenses	199.5	142.9	56.6
Other income, net	7.5	13.4	(5.9)
Income tax expense	—	0.3	(0.3)
Net income (loss)	$ (69.3)	$ 26.9	$ (96.2)

Revenues

Research collaboration revenues in 2020 and 2019 represent revenue recognized under our Genentech and Astellas agreements.

Milestone payments increased by $27.0 million in 2020 over 2019 amounts primarily due to receiving milestones from Alexion, Astellas, and MorphoSys in 2020 compared to milestones received from Amgen, Alexion, and Novartis in 2019.

Licensing revenues in 2020 primarily consist of revenues recognized from various technology and product license agreements entered throughout the year, and licensing revenues in 2019 primarily consist of revenues recognized from our Genentech agreement.

Royalty revenues for 2020 represent revenue recognized from our Alexion and MorphoSys agreements while royalty revenues in 2019 represent royalties from our Alexion agreement.

Research and Development Expenses

The following table summarizes our research and development expenses for the years ended December 31, 2020 and 2019 (in millions):

	Year Ended December 31,		
	2020	2019	Change
Product programs:			
Obexelimab (XmAb5871)	$ 2.9	$ 17.5	$ (14.6)
Bispecific programs:			
CD3 programs:			
*Vibecotamab**	12.4	11.6	0.8
Plamotamab	33.8	12.3	21.5
Tidutamab	14.9	11.4	3.5
XmAb819 (ENPP3 x CD3)	7.4	0.5	6.9
Total CD3 programs	68.5	35.8	32.7
Tumor microenvironment (TME) activator programs:			
XmAb717	26.4	13.0	13.4
XmAb104	13.3	7.8	5.5
XmAb841	10.6	7.4	3.2
Total TME activator programs	50.3	28.2	22.1
Cytokine programs:			
*XmAb306/RG6323**	12.0	17.0	(5.0)
XmAb564	15.4	5.0	10.4
Total cytokine programs	27.4	22.0	5.4
Subtotal bispecific programs	146.2	86.0	60.2
Other, research and early stage programs	20.7	15.1	5.6
Total research and development expenses	$ 169.8	$ 118.6	$ 51.2

*Includes net reimbursements from our partners pursuant to agreements that include cost-sharing arrangements.

Research and development expenses increased by $51.2 million in 2020 over 2019 amounts as we continue to expand our pipeline of bispecific antibody and cytokine candidates. Increased research and development spending in 2020 was driven by increased spending on our plamotamab, XmAb819, XmAb717 and XmAb564 programs and was partially offset by lower spending on our obexelimab program during the year.

General and Administrative Expenses

General and administrative expenses increased by $5.4 million in 2020 over 2019 amounts primarily due to an increase in staffing, professional expenses and spending on intellectual property and licenses.

Other Income, Net

Other income, net decreased by $5.9 million in 2020 over 2019 amounts reflecting decreases in interest income earned on our investments in marketable securities, due to declining in interest rates in 2020.

Comparison of the Years Ended December 31, 2019 and 2018

The following table summarizes our results of operations for the year ended December 31, 2019 and 2018 (in millions):

	Year Ended December 31,		
	2019	**2018**	**Change**
Revenues:			
Research collaboration	$ 16.3	$ 20.1	$ (3.8)
Milestone	23.2	20.5	2.7
Licensing	112.2	—	112.2
Royalties	5.0	—	5.0
Total revenues	156.7	40.6	116.1
Operating expenses:			
Research and development	118.6	97.5	21.1
General and administrative	24.3	22.5	1.8
Total operating expenses	142.9	120.0	22.9
Other income, net	13.4	9.0	4.4
Income tax benefit	0.3	—	0.3
Net income (loss)	$ 26.9	$ (70.4)	$ 97.3

Revenues

Research collaboration revenues in 2019 represent revenue recognized under our Genentech and Astellas agreements while the research collaboration revenues in 2018 represent revenue recognized under our Novartis Agreement.

Milestone payments increased by $2.7 million in 2019 over 2018 amounts primarily due to receiving contractual milestones in 2019 from Amgen, Alexion and Novartis compared to contractual milestones received primarily from Alexion in 2018.

Licensing revenues in 2019 primarily consist of revenues recognized from our Genentech agreement.

Royalty revenues for 2019 represent royalty revenue recognized from our Alexion agreement.

Research and Development Expenses

The following table summarizes our research and development expenses for the years ended December 31, 2019 and 2018 (in millions):

	Year Ended December 31,		
	2019	**2018**	**Change**
Product programs:			
Obexelimab (XmAb5871)	$ 17.5	$ 23.0	$ (5.5)
Bispecific programs:			
CD3 programs:			
*Vibecotamab**	11.6	9.3	2.3
Plamotamab	12.3	5.6	6.7
Tidutamab	11.4	7.8	3.6
XmAb819 (ENPP3 x CD3)	0.5	—	0.5
Total CD3 programs	35.8	22.7	13.1
Tumor microenvironment (TME) activator programs:			
XmAb717	13.0	8.7	4.3
XmAb104	7.8	14.5	(6.7)
XmAb841	7.4	9.9	(2.5)
Total TME activator programs	28.2	33.1	(4.9)
Cytokine programs:			
*XmAb306/RG6323**	17.0	7.7	9.3
XmAb564	5.0	—	5.0
Total cytokine programs	22.0	7.7	14.3
Subtotal bispecific programs	86.0	63.5	22.5
Other, research and early stage programs	15.1	11.0	4.1
Total research and development expenses	$ 118.6	$ 97.5	$ 21.1

*Includes net payments from our partners pursuant to agreements that include cost-sharing arrangements.

Research and development expenses increased by $21.1 million in 2019 over 2018 amounts as we continue to expand our pipeline of bispecific antibody and cytokine candidates. Increased spending on our CD3 bispecific and our cytokine programs offset reduced spending on our TME activator candidates during the year.

General and Administrative Expenses

General and administrative expenses increased by $1.8 million in 2019 over 2018 amounts primarily due to an increase in facility costs, staffing and intellectual property costs.

Other Income, Net

Other income, net increased by $4.4 million in 2019 over 2018 amounts reflecting additional interest income earned on our investments in marketable securities, which is due to higher investment balances as a result of our upfront proceeds received from our Genentech and Astellas agreements in March 2019.

Liquidity and Capital Resources

Since our inception, our operations have been primarily financed through proceeds from public offering, private sales of our equity, and payments received under our collaboration and development partnerships and licensing arrangements. We have devoted our resources to funding research and development programs, including discovery research, preclinical and clinical development activities.

We have incurred substantial operating losses since our inception, and we expect to continue to incur operating losses into the foreseeable future as we advance the ongoing development of our bispecific antibody and cytokine product candidates, evaluate opportunities for the potential clinical development of our other preclinical programs, and continue our research efforts.

In 2020, we received a total of $165 million in upfront payments, milestones and royalties in connection with licensing of our technologies and products.

In March 2019, we received a total of $135.0 million in upfront payment in connection with our Genentech and Astellas collaboration agreements.

In March 2018, we completed the sale of 8,395,000 shares of common stock which included shares that we issued pursuant the underwriters' exercise of their over-allotment option pursuant to a follow-on public offering. We received net proceeds of $245.5 million, after deducting underwriters' discounts and offering expenses.

At December 31, 2020, we had $604.0 million of cash, cash equivalents and marketable debt securities compared to $601.3 million at December 31, 2019. We expect to continue to receive additional payments from our collaborators for research and development services rendered, additional milestone, contingent payments, opt-in and royalty payments. Our ability to receive milestone payments and contingent payments from our partners is dependent upon either our ability or our partners' abilities to achieve certain levels of research and development activities and is therefore uncertain at this time.

Funding Requirements

We have not generated any revenue from product sales and do not expect to do so until we obtain regulatory approval and commercialize one or more of our product candidates. As we are currently in the early clinical stages of development, it will be some time before we expect to achieve this, and it is uncertain that we ever will. We expect that our operating expenses will continue to increase in connection with ongoing as well as additional planned clinical and preclinical development of product candidates in our pipeline. We expect to continue our collaboration arrangements and will look for additional collaboration and licensing opportunities.

Although it is difficult to predict our funding requirements, based upon our current operating plan, we believe that our existing cash, cash equivalents and marketable securities, together with interest thereon and expected milestone and royalty payments will be sufficient to fund our operations into 2024. We have based these estimates on assumptions that may prove to be wrong, and we could use our capital resources sooner than we currently expect.

Cash Flows

The following table sets forth the primary sources and uses of cash and cash equivalents for each of the periods presented below (in thousands):

	Year Ended December 31,		
	2020	**2019**	**2018**
Net cash provided by (used in):			
Operating activities	$ (5,004)	$ 64,374	$ (79,756)
Investing activities	100,192	(50,970)	(164,767)
Financing activities	18,044	10,662	254,241
Net increase in cash and cash equivalents	$ 113,232	$ 24,066	$ 9,718

Operating Activities

Net cash used by operating activities for the year ended December 31, 2020 reflects that upfront and milestone payments and royalties received in the year funded a majority of the operating expenses incurred during the year. Net cash provided by operating activities for the year ended December 31, 2019 reflects upfront and milestone payments received in excess of operating expenses, while net cash used in operations for the years ended December 31, 2018 reflects operating expenses in excess of milestone payments primarily for advancing our pipeline of bispecific antibody candidates during such years.

Investing Activities

Investing activities consist primarily of proceeds from maturities of marketable securities offset by purchases of marketable securities available-for-sale, acquisition of intangible assets and purchases of property and equipment. In 2020, we redeemed $114.0 million of marketable securities, net of $643.7 million of purchase. In 2019, we purchased $39.9 million of marketable securities, net of $456.9 million of proceeds from sales and maturities. In 2018, we purchased $155.7 million in marketable securities, net of $222.1 million of proceeds from sale and maturities. We acquired $3.2 million, $3.7 million and $1.9 million of intangible assets in the years ended December 31, 2020, 2019 and 2018, respectively. We purchased $10.5 million, $7.4 million and $7.2 million of capital equipment for the years ended December 31, 2020, 2019 and 2018 respectively. The increase in capital expenditure in 2020 compared to 2019 and 2018 is primarily due to facility improvements for our laboratory facilities.

Financing Activities

Net cash provided by financing activities during the year ended December 31, 2020 and 2019 consists primarily of cash from stock option exercises and the sales of shares under the ESPP.

Net cash provided by financing activities during the year ended December 31, 2018 consists primarily of net proceeds from our March 2018 follow-on public offering and cash from stock option exercises and the sale of shares under the ESPP.

Contractual Obligations and Commitments

The following table summarizes our contractual obligations at December 31, 2020 (in thousands):

	Payments due by period				
	Total	**Less than 1 year**	**1 - 3 Years**	**3 - 5 Years**	**More than 5 years**
Operating lease obligation relating to facilities (1)	$ 6,645	$ 2,428	$ 2,800	$ 1,417	$ —

(1) Consists of operating leases on our corporate headquarters in Monrovia, CA encompassing two floors of 24,000 square feet each

that expire in December 2025 and September 2022, respectively, and on our San Diego, CA offices encompassing 24,000 square feet that expires in August 2022.

We are obligated to make future payments to third parties under in-license agreements, including sublicense fees, royalties, and payments that become due and payable on the achievement of certain development and commercialization milestones. We have also entered into agreements with third party vendors which will require us to make future payments upon the delivery of goods and services in future periods.

In February 2015, we entered into a license agreement with BIO-TECHNE Corporation (BIO-TECHNE) for a non-exclusive license to certain antibody technology including monoclonal antibodies which recognize human somatostatin receptor 2 (SSTR2). The variable domain of this antibody is incorporated in our tidutamab drug candidate. Under this license agreement, we may be required to make $3.8 million in additional contingent payments which include $800,000 of clinical milestones and $3.0 million of regulatory milestones, in addition to royalties upon commercial sales of products of less than 1%. We made an upfront payment of $200,000 in connection with this license and made a Phase 1 milestone payment of $100,000 in 2018. We have not made any additional milestone payments under this arrangement.

We entered into a second agreement with BIO-TECHNE, effective February 2018, for a non-exclusive license to a certain recombinant monoclonal antibody reactive with human programmed death protein, PD-1. Under this license agreement, we may be required to make $22.0 million in additional contingent payments which include $1.5 million of clinical milestones, $4.5 million of regulatory milestones and milestones on the achievement of certain sales of $16.0 million, in addition to royalties upon commercial sales of products of 1%. We made an upfront payment in connection with this license in 2019 and have not made any additional payments under this license agreement.

In November 2015, we entered into a worldwide exclusive commercial license agreement with Selexis SA to develop and commercialize products produced from the Selexis cell line that was manufactured in connection with our vibecotamab drug candidate. We made an upfront payment of 50,000 Swiss Francs (CHF) in connection with the license and may be required to make CHF 1.7 million in additional contingent obligations which include CHF 500,000 in development milestones, CHF 400,000 in regulatory milestones and CHF 800,000 in sales milestones, in addition to royalties upon commercial sales of products of less than 1%. During 2016, we made a CHF 100,000 milestone payment in connection with an IND submission. There were no additional milestone payments made under this license agreement.

In February 2016, we entered into a worldwide exclusive commercial license agreement with Selexis SA to develop and commercialize products produced from the Selexis cell line that was manufactured in connection with our plamotamab drug candidate. In connection with the license, we may be required to make CHF 1.7 million in additional contingent obligations which include CHF 500,000 in development milestones, CHF 400,000 in regulatory milestones and CHF 800,000 in sales milestones, in addition to royalties upon commercial sales of products of less than 1%. During 2016, we made a CHF 100,000 milestone payment in connection with an IND submission. There were no additional milestone payments made under this license agreement.

In December 2017, we entered into worldwide exclusive commercial license agreements with Selexis to develop and commercialize products produced from the Selexis cell line that was manufactured for each of our bispecific antibody and cytokine drug candidates: tidutamab, XmAb717, XmAb841, XmAb104, XmAb306, XmAb564 and XmAb819. The terms for each agreement are identical and for each licensed cell line we may be required to make up to CHF 1.4 million in total development, regulatory and sales milestones which include CHF 425,000 in development milestones, CHF 340,000 in regulatory milestones and CHF 680,000 in sales milestones. In addition, we may be obligated to pay royalties upon commercial sales of approved products of less than 1%. In 2018, we made three milestone payments of CHF 85,000 each in connection with three separate IND submissions. In 2019, we made a milestone payment of CHF 75,000 in connection with an IND submission, and in 2020, we recorded a milestone payment due of CHF 75,000 in connection with an IND submission.

In December 2012, we entered into a Cross-License Agreement with MedImmune, LLC (MedImmune) for a non-exclusive license to certain MedImmune patents related to half-life technology. Under the terms of the agreement, we may be obligated to make contingent payments in connection with the use of our Xtend™ technology, including use

by us in our development candidates and also for use by our licensees. These contingent payments total $250,000 per program and include $150,000 in clinical milestones and $100,000 in regulatory milestones. In addition, we may be obligated to make contingent payments for tiered sales milestones on the sale of approved products from $20,000 per year to $1.0 million per year. Our obligations to make payments under this agreement expire in December 2021. We made milestone payments under this agreement of $125,000, $75,000 and $375,000 for 2018, 2019 and 2020, respectively.

As the amount and timing of sublicense fees and the achievement and timing of these milestones are not probable and estimable, such commitments have not been included on our balance sheet or in the contractual obligations and commitment tables above.

Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements.

New Accounting Pronouncements

See Note 1 - Recent Accounting Pronouncements in the accompanying financial statements for information regarding recent accounting pronouncements.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Our primary exposure to market risk is interest income sensitivity, which is affected by changes in the general level of U.S. interest rates. Due to the short-term duration of our investment portfolio and the low risk profile of our investments, an immediate 10.0% change in interest rates would not have a material effect on the fair market value of our portfolio. Accordingly, we would not expect our operating results or cash flows to be affected to any significant degree by the effect of a sudden change in market interest rates on our investment portfolio.

We do not believe that our cash, cash equivalents and marketable securities have significant risk of default or illiquidity. While we believe our cash, cash equivalents and marketable securities do not contain excessive risk, we cannot provide absolute assurance that in the future our investments will not be subject to adverse changes in market value. In addition, we maintain significant amounts of cash and cash equivalents at one or more financial institutions that are in excess of federally insured limits.

Inflation generally affects us by increasing our cost of labor and clinical trial costs. We do not believe that inflation has had a material effect on our results of operations during the periods presented.

Item 8. Financial Statements and Supplementary Data

Xencor, Inc.
Financial Statements

Audited Financial Statements for the Years Ended December 31, 2020, 2019 and 2018:

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Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of
Xencor, Inc.

Opinion on the Financial Statements
We have audited the accompanying balance sheets of Xencor, Inc. (the Company) as of December 31, 2020 and 2019, the related statements of comprehensive income (loss), stockholders' equity and cash flows for each of the three years in the period ended December 31, 2020, and the related notes to the financial statements. In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013, and our report, dated February 23, 2021, expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Basis for Opinion
These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with 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 financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the 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 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 financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter
The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements; and (2) involved our especially challenging, subjective or complex judgments. The communication of the critical audit matter does not alter in any way our opinion on the 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.

Revenue Recognition—Collaboration and Licensing Agreements
As discussed in Note 10 to the financial statements, the Company entered into collaboration and licensing agreements during the year ended December 31, 2020. These contracts contain multiple performance obligations. Management's identification of the performance obligations requires significant judgment, including whether the performance obligations are distinct and capable of being distinct, which requires management to evaluate whether the customer can benefit from the good or service on its own, or together with other resources readily available to the customer. Management applies significant judgment in determining the revenue recognition for these collaboration and licensing contracts including the identification of and accounting for all performance obligations and the calculation of the standalone selling price (SSP) for each identified performance obligation. The Company's estimate of SSP for each performance obligation within these customer contracts requires management to consider many factors, including

external market data as well as an estimate of future profitability. For each performance obligation identified, the Company recognizes revenue upon transfer of control of promised intellectual property and technology licenses or upon delivery of research and development services to its collaboration and licensing partners in an amount that reflects the consideration the Company expects to receive in exchange for those licenses or services.

We identified the Company's revenue recognition related to the collaboration and licensing agreements as a critical audit matter because auditing the identification and accounting for performance obligations, and the calculation of the SSP for each performance obligation, required significant audit effort and a high degree of auditor judgment and subjectivity to perform our audit procedures and evaluate the audit evidence obtained.

Our audit procedures related to the Company's collaboration and licensing contracts included the following, among others:

- We obtained and read the collaboration and licensing agreements and evaluated the completeness of the performance obligations identified by management, and performed an evaluation of whether these performance obligations were distinct and capable of being distinct.

- We obtained an understanding of the relevant controls related to the collaboration and licensing contracts and tested such controls for design, implementation and operating effectiveness, including management review controls related to identifying distinct performance obligations and when transfer of control is satisfied, and determining the SSP over each of the identified performance obligations.

- We tested management's process used to estimate the SSP by evaluating the models, including testing the accuracy and completeness of data used, and reasonableness of assumptions applied by management.

- As each contract has multiple performance obligations, we also tested the allocation of the transaction price to each performance obligation based upon the SSP.

We have served as the Company's auditor since 2015.

/s/ RSM US LLP

Los Angeles, California
February 23, 2021

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of
Xencor, Inc.

Opinion on Internal Control Over Financial Reporting
We have audited Xencor, Inc.'s (the Company) internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013. 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 issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the balance sheets of the Company as of December 31, 2020 and 2019, the related statements of comprehensive income (loss), stockholders' equity and cash flows for each of the three years in the period ended December 31, 2020, of the Company and our report, dated February 23, 2021, expressed an unqualified opinion.

Basis for Opinion
The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting
A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP). A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. GAAP, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ RSM US LLP

Los Angeles, California
February 23, 2021

Xencor, Inc.

Balance Sheets

(in thousands, except share and per share data)

	December 31,	
	2020	**2019**
Assets		
Current assets		
Cash and cash equivalents	$ 163,544	$ 50,312
Marketable securities	434,156	479,470
Equity securities	5,303	—
Accounts receivable	11,443	21,574
Income tax receivable	—	502
Contract asset	12,500	—
Prepaid expenses and other current assets	10,726	6,547
Total current assets	637,672	558,405
Property and equipment, net	21,682	15,805
Patents, licenses, and other intangible assets, net	15,977	14,421
Marketable securities - long term	1,030	71,526
Equity securities - long term	16,071	—
Income tax receivable	—	402
Right of use asset	10,600	9,380
Other assets	212	311
Total assets	$ 703,244	$ 670,250
Liabilities and stockholders' equity		
Current liabilities		
Accounts payable	$ 8,954	$ 10,189
Accrued expenses	17,603	8,995
Lease liabilities	1,889	2,169
Deferred revenue	92,615	45,205
Total current liabilities	121,061	66,558
Lease liabilities, net of current portion	9,739	8,565
Deferred revenue, net of current portion	—	1,926
Total liabilities	130,800	77,049
Commitments and contingencies (see note 9)		
Stockholders' equity		
Preferred stock, $0.01 par value: 10,000,000 authorized shares; -0- issued and outstanding shares at December 31, 2020 and 2019	—	—
Common stock, $0.01 par value: 200,000,000 authorized shares; 57,873,444 issued and outstanding shares at December 31, 2020 and 56,902,301 issued and outstanding at December 31, 2019	580	569
Additional paid-in capital	937,525	887,873
Accumulated other comprehensive income	74	1,161
Accumulated deficit	(365,735)	(296,402)
Total stockholders' equity	572,444	593,201
Total liabilities and stockholders' equity	$ 703,244	$ 670,250

See accompanying notes to the financial statements.

Xencor, Inc.

Statements of Comprehensive Income (Loss)

(in thousands, except share and per share data)

	Year ended December 31,		
	2020	**2019**	**2018**
Revenue			
Collaborations, licenses, milestones and royalties	$ 122,694	$ 156,700	$ 40,603
Operating expenses			
Research and development	169,802	118,590	97,501
General and administrative	29,689	24,286	22,472
Total operating expenses	199,491	142,876	119,973
Income (loss) from operations	(76,797)	13,824	(79,370)
Other income (expense)			
Interest income, net	7,264	13,619	9,086
Other income (expense)	200	(256)	(125)
Total other income, net	7,464	13,363	8,961
Income (loss) before income tax	(69,333)	27,187	(70,409)
Income tax expense	—	312	—
Net income (loss)	(69,333)	26,875	(70,409)
Other comprehensive income (loss)			
Net unrealized gain (loss) on marketable securities available-for-sale	(1,087)	2,132	837
Comprehensive income (loss)	$ (70,420)	$ 29,007	$ (69,572)
Net income (loss) per share attributable to common stockholders:			
Basic	$ (1.21)	$ 0.48	$ (1.31)
Diluted	$ (1.21)	$ 0.46	$ (1.31)
Weighted average shares used to compute net income (loss) per share attributable to common stockholders:			
Basic	57,212,737	56,531,439	53,942,116
Diluted	57,212,737	58,467,880	53,942,116

See accompanying notes to the financial statements.

Xencor, Inc.

Statements of Stockholders' Equity

(in thousands, except share data)

Stockholders' Equity	Common Stock Shares	Common Stock Amount	Additional Paid in-Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Stockholders' Equity
Balance, December 31, 2017	47,002,488	470	570,670	(1,808)	(252,868)	316,464
Sale of common stock, net of issuance cost	8,395,000	84	245,420	—	—	245,504
Issuance of common stock upon exercise of stock awards	824,731	8	7,609	—	—	7,617
Issuance of common stock under the Employee Stock Purchase Plan	57,323	1	1,119	—	—	1,120
Comprehensive loss	—	—	—	837	(70,409)	(69,572)
Stock-based compensation	—	—	20,548	—	—	20,548
Balance, December 31, 2018	56,279,542	563	845,366	(971)	(323,277)	521,681
Issuance of common stock upon exercise of stock awards	543,887	5	9,264	—	—	9,269
Issuance of common stock under the Employee Stock Purchase Plan	67,561	1	1,392	—	—	1,393
Issuance of restricted stock units	11,311	—	—			—
Comprehensive income	—	—	—	2,132	26,875	29,007
Stock-based compensation	—	—	31,851	—	—	31,851
Balance, December 31, 2019	56,902,301	569	887,873	1,161	(296,402)	593,201
Issuance of common stock upon exercise of stock awards	858,470	9	16,608	—	—	16,617
Issuance of common stock under the Employee Stock Purchase Plan	50,318	1	1,426	—	—	1,427
Issuance of restricted stock units	62,355	1	(1)	—	—	—
Comprehensive loss	—	—	—	(1,087)	(69,333)	(70,420)
Stock-based compensation	—	—	31,619	—	—	31,619
Balance, December 31, 2020	**57,873,444**	**$ 580**	**$ 937,525**	**$ 74**	**$ (365,735)**	**$ 572,444**

See accompanying notes to the financial statements.

Xencor, Inc.

Statements of Cash Flows

(in thousands)

	Year ended December 31,		
	2020	**2019**	**2018**
Cash flows from operating activities			
Net income (loss)	$ (69,333)	$ 26,875	$ (70,409)
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:			
Depreciation and amortization	5,794	4,298	3,251
Amortization of premium on marketable securities	(272)	(4,321)	(394)
Stock-based compensation	31,619	31,851	20,548
Abandonment of capitalized intangible assets	535	221	239
Loss on disposal of assets	4	8	102
Loss (gain) on sale of marketable securities available-for-sale	(153)	—	74
Equity received in connection with license agreement	(26,660)	—	—
Cash redemption of equity received in connection with license agreement	5,390	—	—
Change in fair value of equity security	(105)	—	—
Changes in operating assets and liabilities:			
Accounts receivable	10,131	(11,321)	(9,045)
Interest receivable	1,190	(387)	(535)
Prepaid expenses and other current assets	(4,170)	3,828	(4,769)
Income tax receivable	895	704	(84)
Contract asset and deposits	(12,401)	—	(46)
Accounts payable	(1,235)	6,392	(3,072)
Accrued expenses	8,608	(667)	4,182
Deferred rent	—	(1,513)	398
Income tax payable	—	—	(157)
Lease liabilities and ROU assets	(325)	1,354	—
Deferred revenue	45,484	7,052	(20,039)
Net cash provided by (used in) operating activities	(5,004)	64,374	(79,756)
Cash flows from investing activities			
Proceeds from sale and maturities of marketable securities available-for-sale	757,617	456,923	222,125
Proceeds from sale of property and equipment	1	—	9
Purchase of marketable securities	(643,658)	(496,855)	(377,840)
Purchase of intangible assets	(3,229)	(3,685)	(1,935)
Purchase of property and equipment	(10,539)	(7,353)	(7,212)
Proceeds from repayment of loan receivable	—	—	86
Net cash provided by (used in) investing activities	100,192	(50,970)	(164,767)
Cash flows from financing activities			
Proceeds from issuance of common stock upon exercise of stock awards	16,617	9,269	7,617
Proceeds from issuance of common stock from Employee Stock Purchase Plan	1,427	1,393	1,120
Proceeds from issuance of common stock	—	—	260,245
Common stock issuance costs	—	—	(14,741)
Net cash provided by financing activities	18,044	10,662	254,241
Net increase in cash and cash equivalents	113,232	24,066	9,718
Cash and cash equivalents, beginning of year	50,312	26,246	16,528
Cash and cash equivalents, end of year	$ 163,544	$ 50,312	$ 26,246
Supplemental disclosures of cash flow information			
Cash paid for:			
Interest	$ 15	$ 11	$ 16
Taxes	$ —	$ 400	$ 233
Supplemental Schedule of Noncash Investing Activities			
Net unrealized gain (loss) on marketable securities available-for-sale	$ (1,087)	$ 2,132	$ 837

See accompanying notes to the financial statements.

1. Summary of Significant Accounting Policies

Description of Business

Xencor, Inc. (we, us, our, or the Company) was incorporated in California in 1997 and reincorporated in Delaware in September 2004. We are a clinical-stage biopharmaceutical company focused on discovering and developing engineered monoclonal antibody and cytokine therapeutics to treat patients with cancer and autoimmune diseases who have unmet medical needs. We create our product candidates using our proprietary XmAb technology platforms, which focus on the portion of an antibody that interacts with multiple segments of the immune system, referred to as the Fc domain, which is constant and interchangeable among antibodies. Our engineered Fc domains, the XmAb technology, can increase antibody immune inhibition, improve cytotoxicity, extend half-life and most recently are used to create bispecific antibodies and cytokines.

Our operations are based in Monrovia, California and San Diego, California.

Basis of Presentation

The Company's financial statements as of December 31, 2020, 2019, and 2018 and for the years then ended have been prepared in accordance with accounting principles generally accepted in the United States (U.S.).

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Significant estimates include useful lives of long-lived assets, the periods over which certain revenues and expenses will be recognized including collaboration revenue recognized from non-refundable upfront licensing payments, the amount of non-cash compensation costs related to share-based payments to employees and non-employees and the period over which these costs are expensed.

Recent Accounting Pronouncements

Pronouncements adopted in 2020

Effective January 1, 2020, the Company adopted ASU No. 2016-13, Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments, as well as ASU No, 2018-19, Codification Improvements to Topic 326, Financial Instruments – Credit Losses. The standard amends guidance on reporting credit losses for assets held at amortized cost basis and also provides an available-for-sale (AFS) debt security impairment model that is a modified version of the other-than-temporary-impairment (OTTI) model. The AFS debt security impairment model no longer allows consideration of the length of time during which the fair value has been less than its amortized cost when determining whether a credit loss exists. The adoption of this standard did not have any impact on the Company's financial statements.

Effective January 1, 2020, the Company adopted ASU No. 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement, which modifies the disclosures for transfers between Level 1 and Level 2 of the fair value hierarchy, modifies the Level 3 disclosure requirements for non-public entities and requires additional disclosure for Level 3 fair value hierarchy. The adoption of this standard did not have any impact on the Company's financial statements.

Effective January 1, 2020, the Company adopted ASU No. 2018-18, Collaborative Arrangements (Topic 808): Clarifying the Interaction Between Topic 808 and Topic 606, which provides guidance on how to assess whether certain transactions between collaborative arrangement participants should be accounted for within the revenue recognition standard. The adoption of this standard did not have any impact on the Company's financial statements.

Pronouncements not yet effective

In December 2019, the FASB issued ASU No. 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*, which is effective for fiscal years beginning after December 15, 2020, and interim periods within those fiscal years. The standard removes specific exceptions to the general principles in Topic 740 and simplifies the accounting for income taxes. The Company does not anticipate that the standard will have a significant impact on its financial statements.

In January 2020, the FASB issued ASU No. 2020-01, which clarifies that a company should consider observable transactions that require a company to either apply or discontinue the equity method of accounting under Topic 323, Investment – Equity Method and Joint Ventures, for the purposes of applying the measurement alternative in accordance with Topic 321, Investments – Equity Securities immediately before applying or upon discontinuing the equity method. The amendment is effective for fiscal years beginning after December 15, 2020. The Company does not anticipate that the standard will have a significant impact on its financial statements.

In October 2020, the FASB issued ASU No. 2020-10, *Codification Improvements*, which amends a variety of topics in the Accounting Standards Codification to improve consistency and clarify guidance. The amendment is effective for fiscal years beginning after December 15, 2020. The Company is currently evaluating the amendment and does not anticipate that it will have an impact on its financial statements.

Revenue Recognition

We have, to date, earned revenue from research and development collaborations, which may include research and development services, licenses of our internally developed technologies, licenses of our internally developed drug candidates, or combinations of these.

The terms of our license, research and development and collaboration agreements generally include non-refundable upfront payments, research funding, co-development payments and reimbursements, license fees, and milestone and other contingent payments to us for the achievement of defined collaboration objectives and certain clinical, regulatory and sales-based events, as well as royalties on sales of any commercialized products.

The terms of our licensing agreements include non-refundable upfront fees, annual licensing fees, and contractual payment obligations for the achievement of pre-defined preclinical, clinical, regulatory and sales-based events by our partners. The licensing agreements also include royalties on sales of any commercialized products by our partners.

We recognize revenue through the five-step process in accordance with ASC 606 Revenue Recognition when control of the promised goods or services is transferred to our customers in an amount that reflects the consideration we expect to be entitled to in exchange for those goods or services.

Deferred Revenue

Deferred revenue arises from payments received in advance of the culmination of the earnings process. We have classified deferred revenue for which we stand ready to perform within the next 12 months as a current liability. We recognize deferred revenue as revenue in future periods when the applicable revenue recognition criteria have been met. The total amounts reported as deferred revenue were $92.6 million and $47.1 million at December 31, 2020 and 2019, respectively.

Research and Development Expenses

Research and development expenses include costs we incur for our own and for our collaborators' research and development activities. Research and development costs are expensed as incurred. These costs consist primarily of salaries and benefits, including associated stock-based compensation, laboratory supplies, facility costs, and applicable overhead expenses of personnel directly involved in the research and development of new technology and products, as

well as fees paid to other entities that conduct certain research development activities on our behalf. We estimate preclinical study and clinical trial expenses based on the services performed pursuant to the contracts with research institutions and clinical research organizations that conduct and manage preclinical studies and clinical trials on our behalf based on the actual time and expenses incurred by them. Further, we accrue expenses related to clinical trials based on the level of patient enrollment and activity according to the related agreement. We monitor patient enrollment levels and related activity to the extent reasonably possible and adjust estimates accordingly.

We capitalize acquired research and development technology licenses and third-party contract rights where such assets have an alternative use and amortize the costs over the shorter of the license term or the expected useful life. We review the license arrangements and the amortization period on a regular basis and adjust the carrying value or the amortization period of the licensed rights if there is evidence of a change in the carrying value or useful life of the asset.

Cash and Cash Equivalents

We consider cash equivalents to be only those investments which are highly liquid, readily convertible to cash and which mature within three months from the date of purchase.

Marketable and Equity Securities

The Company has an investment policy that includes guidelines on acceptable investment securities, minimum credit quality, maturity parameters and concentration and diversification. The Company invests its excess cash primarily in marketable debt securities issued by investment grade institutions.

The Company considers its marketable debt securities to be available-for-sale and does not intend to sell these securities, and it is not more likely than not the Company will be required to sell the securities before recovery of the amortized cost basis. These assets are carried at fair value and any impairment losses and recoveries related to the underlying issuer's credit standing are recognized within other income (expense), while non-credit related impairment losses and recoveries are recognized within accumulated other comprehensive income (loss). There were no impairment losses or recoveries recorded for the years ended in December 31, 2020 and 2019, respectively. Accrued interest on marketable debt securities is included in marketable securities' carrying value. Accrued interest was $1.4 million and $2.7 million at December 31, 2020 and 2019, respectively. Each reporting period, the Company reviews its portfolio of marketable debt securities, using both quantitative and qualitative factors, to determine if each security's fair value has declined below its amortized cost basis.

The Company receives equity securities in connection with certain licensing transactions with its partners. These investments in an equity security are carried at fair value with changes in fair value recognized each period and reported within other income (expense). For equity securities with a readily determinable fair value, the Company remeasures these equity investments at each reporting period until such time that the investment is sold or disposed. If the Company sells an investment, any realized gains or losses on the sale of the securities will be recognized within other income (expense) in the Statement of Comprehensive Income (Loss) in the period of sale.

The Company also has an investment in an equity security without a readily determinable fair value, where the Company elects the measurement alternative to record at its initial cost minus impairment, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer.

Concentrations of Risk

Cash, cash equivalents and marketable debt securities are financial instruments that potentially subject the Company to concentrations of risk. We invest our cash in corporate debt securities and U.S. sponsored agencies with strong credit ratings. We have established guidelines relative to diversification and maturities that are designed to help ensure safety and liquidity. These guidelines are periodically reviewed to take advantage of trends in yields and interest rates.

Cash and cash equivalents are maintained at financial institutions, and at times, balances may exceed federally insured limits. We have never experienced any losses related to these balances. Amounts on deposit in excess of federally insured limits at December 31, 2020 and 2019 approximated $163.3 million and $50.0 million, respectively.

We have payables with one service provider that represent 49% of our total payables and with two service providers that represented 48% of our total payables at December 31, 2020 and 2019, respectively. We rely on three critical suppliers for the manufacture of our drug product for use in our clinical trials. While we believe that there are alternative vendors available, a change in manufacturing vendors could cause a delay in the availability of drug product and result in a delay of conducting and completing our clinical trials. No other vendor accounted for more than 10% of total payables at December 31, 2020 or 2019.

Fair Value of Financial Instruments

Our financial instruments primarily consist of cash and cash equivalents, marketable debt securities, accounts receivable, accounts payable and accrued expenses. Marketable debt securities and cash equivalents are carried at fair value. The fair value of the other financial instruments closely approximate their fair value due to their short maturities.

The Company accounts for recurring and non-recurring fair value measurements in accordance with FASB Accounting Standards Codification (ASC) 820, *Fair Value Measurements and Disclosures* (ASC 820). ASC 820 defines fair value, establishes a fair value hierarchy for assets and liabilities measured at fair value, and requires expanded disclosure about fair value measurements. The ASC 820 hierarchy ranks the quality of reliable inputs, or assumptions, used in the determination of fair value and requires assets and liabilities carried at fair value to be classified and disclosed in one of the following three categories:

Level 1—Fair value is determined by using unadjusted quoted prices that are available in active markets for identical assets or liabilities.

Level 2—Fair value is determined by using inputs other than Level 1 quoted prices that are directly or indirectly observable. Inputs can include quoted prices for similar assets or liabilities in active markets or quoted prices for identical assets or liabilities in markets that are not active. Related inputs can also include those used in valuation or other pricing models, such as interest rates and yield curves that can be corroborated by observable market data.

Level 3—Fair value is determined by inputs that are unobservable and not corroborated by market data. Use of these inputs involves significant and subjective judgments to be made by the reporting entity –e.g. determining an appropriate discount factor for illiquidity associated with a given security.

The Company measures the fair value of financial assets using the highest level of inputs that are reasonably available as of the measurement date. The assets recorded at fair value are classified within the hierarchy as follows for the periods reported (in thousands):

	December 31, 2020			
	Total Fair Value	Level 1	Level 2	Level 3
Money Market Funds in Cash and Cash Equivalents	$ 158,937	$ 158,937	$ —	$ —
Corporate Securities	119,833	—	119,833	—
Government Securities	315,353	—	315,353	—
Equity Securities with Readily Determinable Fair Value	5,303	5,303	—	—
Equity Securities without Readily Determinable Fair Value	16,071	—	—	16,071
	$ 615,497	$ 164,240	$ 435,186	$ 16,071

	December 31, 2019			
	Total Fair Value	Level 1	Level 2	Level 3
Money Market Funds in Cash and Cash Equivalents	$ 32,009	$ 32,009	$ —	$ —
Corporate Securities	281,751	—	281,751	—
Government Securities	269,245	—	269,245	—
	$ 583,005	$ 32,009	$ 550,996	$ —

The Company holds equity securities without readily determinable fair value as of December 31, 2020. The Company elects the measurement alternative to record at its initial cost minus impairment, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer.

Property and Equipment

Property and equipment are recorded at cost and depreciated using the straight-line method over the estimated useful lives of the assets. Expenditures for repairs and maintenance are charged to expense as incurred, while renewals and improvements are capitalized. Useful lives by asset category are as follows:

Computers, software and equipment	3 - 5 years
Furniture and fixtures	5 - 7 years
Leasehold improvements	5 - 7 years or remaining lease term, whichever is less

Patents, Licenses, and Other Intangible Assets

The cost of acquiring licenses is capitalized and amortized on the straight-line basis over the shorter of the term of the license or its estimated economic life, ranging from 5 to 25 years. Third-party costs incurred for acquiring patents are capitalized. Capitalized costs are accumulated until the earlier of the period that a patent is issued, or we abandon the patent claims. Cumulative capitalized patent costs are amortized on a straight-line basis from the date of issuance over the shorter of the patent term or the estimated useful economic life of the patent, ranging from 13 to 20 years. Our senior management, with advice from outside patent counsel, assesses three primary criteria to determine if a patent will be capitalized initially: i) technical feasibility, ii) magnitude and scope of new technical function covered by the patent compared to the company's existing technology and patent portfolio, particularly assessing the value added to our product candidates or licensing business, and iii) legal issues, primarily assessment of patentability and prosecution cost. We review our intellectual property on a regular basis to determine if there are changes in the estimated useful life of issued patents and if any capitalized costs for unissued patents should be abandoned. Capitalized patent costs related to abandoned patent filings are charged off in the period of the decision to abandon. During 2020, 2019 and 2018, we abandoned previously capitalized patent and licensing related charges of $0.5 million, $0.2 million and $0.2 million, respectively.

The carrying amount and accumulated amortization of patents, licenses, and other intangibles is as follows (in thousands):

	December 31,	
	2020	2019
Patents, definite life	$ 12,038	$ 10,597
Patents, pending issuance	8,432	7,266
Licenses and other amortizable intangible assets	2,560	2,510
Nonamortizable intangible assets (trademarks)	399	399
Total gross carrying amount	23,429	20,772
Accumulated amortization—patents	(5,791)	(4,912)
Accumulated amortization—licenses and other	(1,661)	(1,439)
Total intangible assets, net	$ 15,977	$ 14,421

Amortization expense for patents, licenses, and other intangible assets was $1.1 million, $0.9 million and $0.9 million for the years ended December 31, 2020, 2019 and 2018, respectively.

Future amortization expense for patent, licenses, and other intangible assets recorded as of December 31, 2020, and for which amortization has commenced, is as follows:

	Year ended December 31, (in thousands)
2021	$ 947
2022	906
2023	829
2024	667
2025	589
Thereafter	3,208
Total	$ 7,146

The above amortization expense forecast is an estimate. Actual amounts of amortization expense may differ from estimated amounts due to additional intangible asset acquisitions, impairment of intangible assets, accelerated amortization of intangible assets, and other events. As of December 31, 2020, the Company has $8.4 million of intangible assets which are in-process and have not been placed in service, and accordingly amortization on these assets has not commenced.

Long-Lived Assets

Management reviews long-lived assets which include fixed assets and amortizable intangibles for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset (or asset group) may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to undiscounted net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured as the amount by which the carrying amount of the assets exceeds the fair value of the assets.

We did not recognize a loss from impairment for the years ended December 31, 2020, 2019 or 2018.

Income Taxes

We account for income taxes in accordance with accounting guidance which requires an asset and liability approach to financial accounting and reporting for income taxes. Deferred income tax assets and liabilities are computed annually for differences between the financial statement and tax bases of assets and liabilities that will result in taxable or deductible amounts in the future based on enacted tax laws and rates applicable to the periods in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized. Income tax expense is the tax payable or refundable for the period plus or minus the change during the period in deferred tax assets and liabilities.

We assess our income tax positions and record tax benefits for all years subject to examination based upon our evaluation of the facts, circumstances and information available at the reporting date. For those tax positions where there is greater than 50% likelihood that a tax benefit will be sustained, we have recorded the largest amount of tax benefit that may potentially be realized upon ultimate settlement with a taxing authority that has full knowledge of all relevant information. For those income tax positions where there is a 50% or less likelihood that a tax benefit will be sustained, no tax benefit has been recognized in the financial statements. We did not have any material uncertain tax positions at December 31, 2020 or 2019.

Our policy is to recognize interest and penalties on taxes, if any, as a component of income tax expense.

The Tax Cuts and Jobs Act of 2017 (TCJA) enacted on December 22, 2017 included several key provisions impacting the accounting for and reporting of income taxes. The most significant provisions reduced the U.S. corporate statutory tax rate from 35% to 21%, eliminated the corporate Alternative Minimum Tax (AMT) system, and made changes to the carryforward of net operating losses beginning on January 1, 2018. The tax reform provided for a refund of unused AMT carryforwards for years beginning after December 31, 2017. We received an income tax refund during the years ended December 31, 2020 and 2019 of $0.8 million each year related to our federal AMT carryforwards.

Stock-Based Compensation

We recognize compensation expense using a fair-value-based method for costs related to all share-based payments, including stock options, restricted stock units (RSUs), and shares issued under our Employee Stock Purchase Plan (ESPP). Stock-based compensation cost related to employees and directors is measured at the grant date, based on the fair-value-based measurement of the award using the Black-Scholes method, and is recognized as expense over the requisite service period on a straight-line basis. We account for forfeitures when they occur. We recorded stock-based compensation and expense for stock-based awards to employees, directors and consultants of approximately $31.6 million, $31.9 million and $20.5 million for the years ended December 31, 2020, 2019 and 2018 respectively. Included in the 2020, 2019, and 2018 balances for total compensation expense is $0.8 million, $0.7 million and $0.7 million, respectively, relating to our ESPP.

Net Income (Loss) Per Share

Basic net income (loss) per common share is computed by dividing the net income or loss by the weighted-average number of common shares outstanding during the period. Potentially dilutive securities were included

in the diluted net income per common share calculation for 2019. We included 1,923,310 options to purchase shares of common stock and 13,131 shares of RSUs in the calculation of the weighted-average common shares outstanding used in computing diluted net income per common share. We excluded 1,022,623 shares of options and RSUs from the calculation for 2019 because the inclusion of such shares would have had an antidilutive effect.

In 2020 and 2018, we excluded all options and awards from the calculations because we reported net losses in the periods, and the inclusion of such shares would have had an antidilutive effect.

	Year Ended December 31,		
	2020	2019	2018
	(in thousands, except share and per share data)		
Basic			
Numerator:			
Net income (loss) attributable to common stockholders for basic net income (loss) per share	$ (69,333)	$ 26,875	$ (70,409)
Denominator:			
Weighted-average common shares outstanding	57,212,737	56,531,439	53,942,116
Basic net income (loss) per common share	$ (1.21)	$ 0.48	$ (1.31)
Diluted			
Numerator:			
Net income (loss) attributable to common stockholders for diluted net income (loss) per share	$ (69,333)	$ 26,875	$ (70,409)
Denominator:			
Weighted average number of common shares outstanding used in computing basic net income (loss) per common share	57,212,737	56,531,439	53,942,116
Dilutive effect of employee stock options and ESPP	—	1,936,441	—
Weighted-average number of common shares outstanding used in computing diluted net income (loss) per common share	57,212,737	58,467,880	53,942,116
Diluted net income (loss) per common share	$ (1.21)	$ 0.46	$ (1.31)

Segment Reporting

The Company determines its segment reporting based upon the way the business is organized for making operating decisions and assessing performance. The Company has only one operating segment related to the development of pharmaceutical products.

2. Comprehensive Income (Loss)

Comprehensive income (loss) is comprised of net income (loss) and other comprehensive income (loss). For the years ended December 31, 2020 and 2019, the only component of other comprehensive income (loss) is net unrealized gains on marketable debt securities. There were no material reclassifications out of accumulated other comprehensive loss during the year ended December 31, 2020.

3. Marketable Securities

The Company's marketable debt securities held as of December 31, 2020 and 2019 are summarized below:

	December 31, 2020			
(in thousands)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Money Market Funds	$ 158,937	$ —	$ —	$ 158,937
Corporate Securities	119,782	57	(6)	119,833
Government Securities	315,319	37	(3)	315,353
	$ 594,038	$ 94	$ (9)	$ 594,123
Reported as				
Cash and cash equivalents				$ 158,937
Marketable securities				435,186
Total investments				$ 594,123

	December 31, 2019			
(in thousands)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Money Market Funds	$ 32,009	$ —	$ —	$ 32,009
Corporate Securities	281,586	195	(30)	281,751
Government Securities	268,239	1,006	—	269,245
	$ 581,834	$ 1,201	$ (30)	$ 583,005
Reported as				
Cash and cash equivalents				$ 32,009
Marketable securities				550,996
Total investments				$ 583,005

The maturities of the Company's marketable debt securities as of December 31, 2020 are as follows:

(in thousands)	Amortized Cost	Estimated Fair Value
Mature in one year or less	$ 434,071	$ 434,156
Mature after one year through five years	1,030	1,030
	$ 435,101	$ 435,186

The unrealized losses on available-for-sale investments and their related fair values as of December 31, 2020 and 2019 are as follows:

	December 31, 2020			
	Less than 12 months		12 months or greater	
(in thousands)	Fair value	Unrealized losses	Fair value	Unrealized losses
Corporate Securities	$ 15,843	$ (6)	$ —	$ —
Government Securities	40,802	(3)	—	—
	$ 56,645	$ (9)	$ —	$ —

	December 31, 2019			
	Less than 12 months		12 months or greater	
(in thousands)	Fair value	Unrealized losses	Fair value	Unrealized losses
Corporate Securities	$ 46,303	$ (24)	$ 13,992	$ (6)

The unrealized losses from the listed securities are due to a change in the interest rate environment and not a change in the credit quality of the securities.

For the year ended December 31, 2020, the Company received shares of Aimmune common stock and MiRagen common stock in connection with the Aimmune and MiRagen Agreements (both as defined below). Aimmune common stock was redeemed for cash within the same year; MiRagen common stock is classified as equity securities with a readily determinable fair value at December 31, 2020. For the year ended December 31, 2020, the Company also received equity of a private company in connection with a licensing agreement. The Company elects measurement alternative to carry the investment at cost minus impairment, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer. There has not been any impairment or observable price changes related to this investment. We did not hold any equity securities in our investment portfolio during the year ended December 31, 2019.

Net gains and losses during the year ended December 31, 2020 and 2019 consist of the following:

	Year Ended December 31,	
	2020	2019
Net gains recognized on equity securities	$ 105	$ —
Less: net gains recognized on equity securities redeemed	801	—
Unrealized losses recognized on equity securities	$ (696)	$ —

4. Sale of Additional Common Stock

In March 2018, we completed the sale of 8,395,000 shares of commons stock which included shares we issued pursuant to our underwriters' exercise of their over-allotment option pursuant to a follow-on financing. We received net proceeds of $245.5 million, after underwriters' discounts and offering expenses.

5. Property and Equipment

Property and equipment consist of the following:

	December 31,	
	2020	2019
	(in thousands)	
Computers, software and equipment	$ 31,229	$ 21,087
Furniture and fixtures	527	492
Leasehold and tenant improvements	6,957	6,831
	38,713	28,410
Less accumulated depreciation and amortization	(17,031)	(12,605)
	$ 21,682	$ 15,805

Depreciation expense related to property and equipment in 2020, 2019 and 2018 was $4.7 million, $3.4 million and $2.4 million, respectively.

6. Income Taxes

Our effective tax rate differs from the statutory federal income tax rate, primarily as a result of the changes in valuation allowance. There was no provision for taxes for the years ended December 31, 2020 and December 31, 2018. The provision for income taxes for the year ended December 31, 2019 was $0.3 million, which represents the current state alternative minimum tax for the year.

A reconciliation of the federal statutory income tax to our effective income tax is as follows (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Federal statutory income tax	$ (14,559)	$ 5,709	$ (14,795)
State and local income taxes	(4,659)	2,549	(4,767)
Research and development credit	(9,669)	(6,747)	(6,170)
Stock-based compensation	529	1,927	444
State credit	—	1,725	—
Other	56	(301)	414
Net change in valuation allowance	28,302	(4,550)	24,874
Income tax provision (benefit)	$ —	$ 312	$ —

The tax effect of temporary differences that give rise to a significant portion of the deferred tax assets and liabilities at December 31, 2020 and 2019 is presented below (in thousands):

	December 31,	
	2020	2019
Deferred income tax assets		
Net operating loss carryforwards	$ 56,182	$ 36,891
Research credits	38,047	28,415
Depreciation	137	334
Unrealized loss on securities	195	—
Accrued compensation	8,464	4,788
Deferred revenue	11,925	11,215
State taxes	—	64
Gross deferred income tax assets	114,950	81,707
Valuation allowance	(105,995)	(77,389)
Net deferred income tax assets	8,955	4,318
Deferred income tax liabilities		
Patent costs	(4,219)	(3,736)
Equity investment	(4,497)	—
Licensing costs	(194)	(229)
Capitalized legal costs	(21)	(26)
Unrealized gain on securities	(24)	(327)
Gross deferred income tax liabilities	(8,955)	(4,318)
Net deferred income tax asset	$ —	$ —

The Tax Cuts and Jobs Act of 2017 (TCJA) was enacted in December 2017 and made substantial changes in the U.S. tax system. One of the changes was elimination of the AMT tax system for corporations and allowance of an income tax refund for AMT tax credit carryforwards as of December 31, 2017. We have received an income tax refund of $0.8 million and $0.8 million for each year ended December 31, 2020 and 2019 for U.S. AMT credit carryforwards. We have net deferred tax assets relating primarily to net operating loss carryforwards and research and development tax credit carryforwards. Due to the uncertainty surrounding the realization of the benefits of our deferred tax assets in future tax periods, we have placed a valuation allowance against our deferred tax assets at December 31, 2020 and 2019. The Company recognizes valuation allowances to reduce deferred tax assets to the amount that is more likely than not to be realized. The Company's net deferred income tax asset is not more likely than not to be realized due to the lack of sufficient sources of future taxable income and cumulative losses that have resulted over the years. During the year ended December 31, 2020, the valuation allowance increased by $28.6 million. The Company's tax years starting in 2016 through 2019 remain open to potential examination by the U.S. and state taxing authorities due to carryforwards of net operating losses.

As of December 31, 2020, we had cumulative net operating loss carryforwards for federal and state income tax purposes of $213.6 million and $161.4 million, respectively, and available tax credit carryforwards of approximately $26.7 million for federal income tax purposes and $14.3 million for state income tax purposes, which can be carried forward to offset future taxable income, if any. The federal net operating loss carryforwards consist of $68.0 million of losses incurred prior to January 1, 2018, which are subject to carryforward limitations and $145.6 million of losses incurred after January 1, 2018, which may be carried forward indefinitely.

Our federal net operating loss carryforwards expire starting in 2026, state net operating loss carryforwards expire starting in 2035, and federal tax credit carryforwards began to expire in 2019. A total of $0.03 million in federal tax credits expired in 2019, and an additional $0.3 million will expire over the next five years if not utilized. Utilization of our net operating loss and tax credit carryforwards are subject to a substantial annual limitation under Section 382 of the Code due to the fact that we have experienced ownership changes. As a result of these changes, certain of our net operating loss and tax credit carryforwards may expire before we can use them.

7. Stock-Based Compensation

Our Board of Directors and the requisite stockholders previously approved the 2010 Equity Incentive Plan (the 2010 Plan). In October 2013, our Board of Directors approved the 2013 Equity Incentive Plan (the 2013 Plan), and in November 2013 our stockholders approved the 2013 Plan. The 2013 Plan provides for the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock awards, restricted stock unit awards, performance stock awards, performance cash awards, and other stock awards. The 2013 Plan became effective as of December 2, 2013, the date of the pricing of the Company's initial public offering. As of December 2, 2013, we suspended the 2010 Plan, and no additional awards may be granted under the 2010 Plan. Any shares of common stock covered by awards granted under the 2010 Plan that terminate after December 2, 2013 by expiration, forfeiture, cancellation or other means without the issuance of such shares will be added to the 2013 Plan reserve.

As of December 31, 2020, the total number of shares of common stock available for issuance under the 2013 Plan was 11,479,096. Unless otherwise determined by the Board, beginning January 1, 2014, and continuing until the expiration of the 2013 Plan, the total number of shares of common stock available for issuance under the 2013 Plan will automatically increase annually on January 1 by 4% of the total number of issued and outstanding shares of common stock as of December 31 of the immediately preceding year. On January 1, 2020, the total number of shares of common stock available for issuance under the 2013 Plan was increased by 1,138,046 shares, which is included in the number of shares available for issuance above. As of December 31, 2020, a total of 10,572,839 options have been granted under the 2013 Plan.

As of December 31, 2020, the Company has awarded 453,787 RSUs to certain employees pursuant to the 2013 Plan. Vesting of these awards will be in three equal annual installments and is contingent on continued employment terms. The fair value of these awards is determined based on the intrinsic value of the stock on the date of grant and will be recognized as stock-based compensation expense over the requisite service period.

In November 2013, our Board of Directors and stockholders approved the 2013 Employee Stock Purchase Plan (ESPP), which became effective as of December 5, 2013. Under the ESPP our employees may elect to have between 1-15% of their compensation withheld to purchase shares of the Company's common stock at a discount. The ESPP had an initial two-year term that includes four six-month purchase periods, and employee withholding amounts may be used to purchase Company stock during each six-month purchase period. The initial two-year term ended in December 2015 and pursuant to the provisions of the ESPP, the second two-year term began automatically upon the end of the initial term. The total number of shares that can be purchased with the withholding amounts are based on the lower of 85% of the Company's common stock price at the initial offering date or 85% of the Company's stock price at each purchase date.

We have reserved a total of 581,286 shares of common stock for issuance under the ESPP. Unless otherwise determined by our Board, beginning on January 1, 2014, and continuing until the expiration of the ESPP, the total number shares of common stock available for issuance under the ESPP will automatically increase annually on January 1 by the lesser of (i) 1% of the total number of issued and outstanding shares of common stock as of December 31 of the immediately preceding year, or (ii) 621,814 shares of common stock. On January 1, 2014, the total number of shares of common stock available for issuance under the ESPP was automatically increased by 313,545 shares, which is included in the number of shares reserved for issuance above. Pursuant to approval by our board, there were no increases in the number of authorized shares in the ESPP in years from 2015 to 2020. As of December 31, 2020, we have issued a total of 467,595 shares of common stock under the ESPP.

Total employee, director and non-employee stock-based compensation expense recognized was as follows:

(in thousands)	Year Ended December 31, 2020	2019	2018
General and administrative	$ 10,769	$ 8,854	$ 7,699
Research and development	20,850	22,997	12,849
	$ 31,619	$ 31,851	$ 20,548

(in thousands)	Year Ended December 31, 2020	2019	2018
Stock options	$ 26,045	$ 30,502	$ 19,537
ESPP	804	687	744
RSUs	4,770	662	267
	$ 31,619	$ 31,851	$ 20,548

Information with respect to stock options outstanding is as follows:

	December 31, 2020	2019	2018
Exercisable options	4,668,179	3,950,965	3,058,659
Weighted average exercise price per share of exercisable options	$ 21.75	$ 17.79	$ 15.12
Weighted average grant date fair value per share of options granted during the year	$ 16.96	$ 20.74	$ 18.06
Options available for future grants	3,346,092	3,975,160	3,576,574
Weighted average remaining contractual life	7.00	7.32	7.51

The following table summarizes stock option activity for the years ended December 31, 2020 and 2019:

	Number of Shares	Weighted-Average Exercise Price (Per Share)[1]	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)[2]
Balances at December 31, 2018	5,966,928	19.71	7.51	$ 99,273
Options granted	2,142,228	35.80		
Options forfeited	(390,950)	32.23		
Options exercised(3)	(543,887)	17.04		
Balances at December 31, 2019	7,174,319	24.03	7.32	$ 79,116
Options granted	1,679,324	33.08		
Options forfeited	(243,384)	32.93		
Options exercised(3)	(858,470)	19.36		
Balances at December 31, 2020	7,751,789	$ 26.23	7.00	$ 134,941
As of December 31, 2020				
Options vested and expected to vest	7,751,789	$ 26.23	7.00	$ 134,941
Exercisable	4,668,179	$ 21.75	5.91	$ 102,120

(1) The weighted average exercise price per share is determined using exercise price per share for stock options.

(2) The aggregate intrinsic value is calculated as the difference between the exercise price of the option and the fair value of our common stock for in-the-money options at December 31, 2020 and 2019.

(3) The total intrinsic value of stock options exercised was $16.3 million, $11.5 million and $23.6 million for the years ended December 31, 2020, 2019 and 2018 respectively.

The stock options outstanding and exercisable by exercise price at December 31, 2020 are as follows:

Stock Options Outstanding				Stock Options Exercisable	
Range of Exercise Prices	Number of Shares	Weighted-Average Remaining Contractual Term (in years)	Weighted-Average Exercise Price Per Share	Number of Shares	Weighted-Average Exercise Price Per Share
$4.25 – $10.28	153,038	2.68	$ 4.29	153,038	$ 4.29
$10.52 – $15.78	1,639,702	4.30	$ 13.10	1,638,717	$ 13.10
$15.91 – $23.87	1,980,437	6.53	$ 22.75	1,654,609	$ 22.67
$23.96 – $35.94	2,330,771	8.65	$ 31.80	530,056	$ 30.12
$35.99 – $53.99	1,647,841	8.34	$ 37.63	691,759	$ 37.51
	7,751,789	7.00	$ 26.23	4,668,179	$ 21.75

We estimated the fair value of employee and non-employee awards using the Black-Scholes valuation model. The fair value of employee stock options is being amortized on a straight-line basis over the requisite service period of the awards. Management estimates the probability of non-employee awards being vested based upon an evaluation of the non-employee achieving their specific performance goals.

Options are issued at the fair market value of our stock on the date of grant.

The fair value of employee stock options was estimated using the following weighted average assumptions for the years ended December 31, 2020, 2019 and 2018:

	Options		
	2020	2019	2018
Common stock fair value per share	$ 20.69 - 45.91	$ 29.96 - 44.19	$ 21.80 - 43.16
Expected volatility	52.93% - 58.95%	60.67% - 61.33%	70.97% - 73.10%
Risk-free interest rate	0.29% - 1.71%	1.37% - 2.60%	2.29% - 3.10%
Expected dividend yield	—	—	—
Expected term (in years)	5.23 - 7.65	5.23 - 6.59	5.23 - 6.08

	ESPP		
	2020	2019	2018
Expected term (years)	0.5 - 2.0	0.5 - 2.0	0.5 - 2.0
Expected volatility	50.77% - 66.37%	50.77% - 71.37%	57.04% - 71.37%
Risk-free interest rate	0.09% - 1.65%	1.47% - 2.70%	1.47% - 2.70%
Expected dividend yield	—	—	—

The expected term of stock options represents the average period the stock options are expected to remain outstanding. The expected stock price volatility for our stock options for the years ended December 31, 2020 and 2019 was determined using a blended volatility by examining the historical volatility for industry peer companies and the volatility of our stock from the effective date that our shares were publicly traded on a national stock exchange. For the year ended December 31, 2018, expected stock volatility was determined by examining the historical volatilities for industry peers and adjusting for differences in our life cycle and financing leverage. Industry peers consist of several public companies in the biopharmaceutical industry.

We determined the average expected life of stock options based on the anticipated time period between the measurement date and the exercise date by examining the option holders' past exercise patterns.

The risk-free interest rate assumption is based on the U.S. Treasury instruments, for which the term was consistent with the expected term of our stock options.

The expected dividend assumption is based on our history and expectation of dividend payouts. We have not paid dividends and did not have any dividend payout at December 31, 2020.

The following table summarizes RSU activity for the years ended December 31, 2020:

	Number of Shares	Weighted-Average Grant Date Fair Value (Per Unit)
Unvested at December 31, 2018	33,933	$ 27.64
Granted	71,566	36.68
Vested	(11,311)	27.64
Forfeited	(4,182)	31.12
Unvested at December 31, 2019	90,006	$ 34.66
Granted	348,288	32.51
Vested	(62,355)	32.61
Forfeited	(17,114)	32.33
Unvested at December 31, 2020	358,825	$ 33.04

As of December 31, 2020 and 2019, the unamortized compensation expense related to unvested stock options was $48.9 million and $51.1 million, respectively. The remaining unamortized compensation expense will be recognized over the next 2.54 years. At December 31, 2020 and 2019, the unamortized compensation expense was $0.9 million and $1.4 million respectively under our ESPP. The remaining unamortized expense will be recognized over the next 0.94 years. At December 31, 2020 and 2019, the unamortized compensation expense related to unvested restricted stock units was $8.5 million and $2.5 million, respectively. The remaining unamortized compensation expense will be recognized over the next 2.13 years.

8. Leases

The Company leases office and laboratory space in Monrovia, CA under a lease that expired in June 2020. In April 2020 and in September 2020, the Company entered into amendments to the lease to extend the term of the lease under the original terms through October 2020. In November 2020, the Company entered into an amended lease for the space, which includes a 62-month term with an option to renew for an additional five years at then market rates. In July 2017, the Company entered into an amended lease agreement for additional space in the same building with a lease that continues through September 2022, also with an option to renew for an additional five years. The Company assesses that it is likely to exercise both options of the lease term extensions.

The Company also leased office space in San Diego, CA through July 2020 which included an option to renew for an additional five years. The lease expired and the Company did not exercise its option to extend the lease.

The Company leases additional office space in San Diego, CA through August 2022, with an option to extend for an additional five years. The Company assesses that it is unlikely to exercise the option to extend the lease term.

The Company’s lease agreements do not contain any residual value guarantees or restrictive covenants. As of December 31, 2020, the Company did not have additional operating leases that have not yet commenced.

The following table reconciles the undiscounted cash flows for the operating leases at December 31, 2020 to the operating lease liabilities recorded on the balance sheet (in thousands):

Years ending December 31,		
2021	$	2,429
2022		2,269
2023		1,415
2024		1,436
2025		1,396
Thereafter		5,342
Total undiscounted lease payments		14,287
Less: Imputed interest		(2,659)
Present value of lease payments	$	11,628
Lease liabilities - short-term	$	1,889
Lease liabilities - long-term		9,739
Total lease liabilities	$	11,628

The following table summarizes lease costs and cash disclosures for the years ended December 31, 2020 and 2019 (in thousands):

	Year Ended December 31,			
	2020		**2019**	
Operating lease cost	$	2,503	$	2,596
Variable lease cost		150		80
Total lease costs	$	2,653	$	2,676
Cash paid for amounts included in the measurement of lease liabilities	$	2,233	$	1,929

Rent expense for the year ended December 31, 2018 was $2.5 million.

The 2020 lease amendments to the Monrovia, CA lease are lease modifications. Non-cash activities involving right of use assets related to the lease modification were $3.1 million.

At December 31, 2020 and 2019, the weighted-average remaining lease terms for operating leases were 7.4 years and 5.5 years, respectively, and the weighted average discount rates for operating leases were both 5.5%.

9. Commitments and Contingencies

Contingencies

From time to time, the Company may be subject to various litigation and related matters arising in the ordinary course of business. The Company does not believe it is currently subject to any material matters where there is at least a reasonable possibility that a material loss may be incurred.

We are obligated to make future payments to third parties under in-license agreements, including sublicense fees, royalties, and payments that become due and payable on the achievement of certain development and commercialization milestones. As the amount and timing of sublicense fees and the achievement and timing of these milestones are not probable and estimable, such commitments have not been included on our balance sheet. We have also entered into agreements with third party vendors which will require us to make future payments upon the delivery of goods and services in future periods.

Guarantees

In the normal course of business, we indemnify certain employees and other parties, such as collaboration partners and other parties that perform certain work on behalf of, or for the Company or 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 since we have not had any prior indemnification claims on which to base the calculation. Further, each potential claim would be based on the unique facts and circumstances of the claim and the particular provisions of each agreement. We are not aware of any potential claims and we did not record a liability as of December 31, 2020 and 2019.

10. Collaboration and Licensing Agreements

Following is a summary description of the material revenue arrangements, including arrangements that generated revenue in the period ended December 31, 2020, 2019, and 2018. The revenue reported for each agreement has been adjusted to reflect the adoption of ASC 606 for each period presented.

Janssen Biotech, Inc.

In November 2020, the Company entered into a Collaboration and License Agreement (the Janssen Agreement) with Janssen Biotech, Inc. (Janssen) pursuant to which Xencor and Janssen will conduct research and development activities to discover novel CD28 bispecific antibodies for the treatment of prostate cancer. Janssen and Xencor will conduct joint research activities for up to a three-year period to discover XmAb bispecific antibodies against CD28 and against an undisclosed prostate tumor-target with Janssen maintaining exclusive worldwide rights to develop and commercialize Licensed Products identified from the research activities.

Under the Janssen Agreement, the Company will conduct research activities and apply its bispecific Fc technology to antibodies targeting prostate cancer provided by Janssen. Upon completion of the research activities Janssen will have a candidate selection option to advance an identified candidate for development and commercialization. The activities will be conducted under a research plan agreed to by both parties. Janssen will assume full responsibility for development and commercialization of the CD28 bispecific antibody candidate. Pursuant to the Janssen Agreement, the Company received an upfront payment of $50.0 million and is eligible to receive up to $662.5 million in milestones which include $161.9 million in development milestones, $240.6 million in regulatory milestones and $260.0 million in sales milestones. If commercialized, the Company is eligible to receive royalties on net sales that range from the high-single to low-double digit percentages.

Pursuant to the Janssen Agreement, upon development of a bispecific candidate by Janssen through proof of concept, we have the right to opt-in to fund 20% of development costs and to perform 30% of detailing efforts in the U.S. If we exercise this right, we will be eligible to receive tiered royalties in the low-double digit to mid-teen percentage range.

We evaluated the Janssen Agreement under ASC 606 and identified the performance obligation under the Agreement to be delivery of CD28 bispecific antibodies to Janssen from the research activities outlined in the research

plan. The Company determined that the license to the bispecific antibodies is not a separate performance obligation because it is not capable of being distinct, the license to the antibodies cannot be separated from the underlying antibodies.

Janssen will benefit from delivery of the bispecific antibodies upon completion of the research activities.

The Company determined that the transaction price of the Janssen Agreement at inception was $50.0 million consisting of the upfront payment. The potential milestones are not included in the transaction price as these are contingent on future events and the Company would not recognize these in revenue until it is not probable that these would not result in significant reversal of revenue amounts in future periods. The candidate selection option payment is substantive and is a separate performance obligation. The Company will re-assess the transaction price at each reporting period and when event outcomes are resolved or changes in circumstances occur.

The Company allocated the transaction price to the single performance obligation, delivery of CD28 bispecific antibodies to Janssen.

The Company will recognize the $50.0 million transaction price as it satisfies its performance obligation to deliver CD28 bispecific antibodies to Janssen. The Company will recognize revenue related to the performance obligation over the expected period of time to complete and deliver the CD28 bispecific antibodies to Janssen using the expected input method which considers an estimate of the Company's efforts to complete the research activities outlined in the Janssen Agreement.

No revenue was recognized under this arrangement for the year ended December 31, 2020, and there is $50.0 million in deferred revenue as of December 31, 2020 related to our obligation to complete research activities and deliver CD28 bispecific antibodies under the Janssen Agreement.

Aimmune Therapeutics, Inc.

On February 4, 2020, the Company entered into a License, Development and Commercialization Agreement (the Aimmune Agreement) with Aimmune Therapeutics, Inc. (Aimmune) pursuant to which the Company granted Aimmune an exclusive worldwide license to XmAb7195, which was renamed AIMab7195. Under the Aimmune Agreement, Aimmune will be responsible for all further development and commercialization activities for XmAb7195. The Company received an upfront payment of $5.0 million and 156,238 shares of Aimmune common stock with an aggregate value of $4.6 million on the closing date. Under the Aimmune Agreement, the Company is also eligible to receive up to $385.0 million in milestones, which include $22.0 million in development milestones, $53.0 million in regulatory milestones and $310.0 million in sales milestones, and tiered royalties on net sales of approved products from high-single to mid-teen percentage range.

Under the Aimmune Agreement, Aimmune received exclusive worldwide rights to manufacture, develop and commercialize XmAb7195. They also received the rights to all data, information and research materials related to the XmAb7195 program.

The Company evaluated the Aimmune Agreement under the revenue recognition standard ASC 606 and identified the following performance obligations that it deemed to be distinct at the inception of the contract:

- license to the rights to the XmAb7195 drug candidate; and
- rights to material, data, and information that the Company had accumulated in connection with manufacturing, testing, and conducting clinical trials for the XmAb7195 program and intellectual property filings and information (XmAb7195 data).

The Company considered the licenses as functional intellectual property as Aimmune has the right to use XmAb7195 at the time that the Company transfers such rights. The rights to the XmAb7195 data are not considered to be separate from the license to XmAb7195 as Aimmune cannot benefit from the license without the supporting data and documentation.

The Company determined the transaction price at inception is $9.6 million which consists of the $5.0 million upfront payment and the 156,238 shares of Aimmune common stock which had a value of $4.6 million on the closing date. The Company determined that the transaction price is to be allocated to the performance obligations. The Aimmune Agreement includes variable consideration for potential future milestones and royalties that are contingent on future success factors for the XmAb7195 program. The Company used the "most likely amount" method to determine the variable consideration. None of the development, regulatory or sales milestones or royalties were included in the transaction price. The Company will re-evaluate the transaction price in each reporting period as uncertain events are resolved or other changes in circumstances occur.

The Company determined the transaction price at inception of the Aimmune Agreement and allocated it to the performance obligation, delivery of the XmAb7195 license.

The Company completed delivery of its performance obligations in March 2020. The license to XmAb7195 was transferred to Aimmune at inception of the Aimmune Agreement, and the XmAb7195 data were transferred to Aimmune in March 2020.

The Company recognized $9.6 million of revenue related to the agreement for the year ended December 31, 2020. There is no deferred revenue as of December 31, 2020 related to this agreement.

Genentech

In February 2019, the Company entered into a collaboration and license agreement (the Genentech Agreement) with Genentech, Inc. and F. Hoffman-La Roche Ltd (collectively, Genentech) for the development and commercialization of novel IL-15 collaboration products (Collaboration Products), including XmAb306, the Company's IL-15/IL15Rα-Fc candidate.

Under the terms of the Genentech Agreement, Genentech received an exclusive worldwide license to XmAb306 and other Collaboration Products, including any new IL-15 programs identified during the joint research collaboration. Genentech and Xencor will jointly collaborate on worldwide development of XmAb306 and potentially other Collaboration Products.

The Company received a $120.0 million upfront payment and is eligible to receive up to an aggregate of $160.0 million in clinical milestone payments for XmAb306 and up to $180.0 million in clinical milestone payments for each new Collaboration Product. The Company is also eligible to receive 45% share of net profits for sales of XmAb306 and other Collaboration Products, while also sharing in net losses at the same percentage rate. The parties will jointly share in development and commercialization costs for all programs designated as a development program under the Genentech Agreement at the same percentage rate, while Genentech will bear launch costs entirely. The initial 45% profit-cost share percentage is subject to a one-time downward adjustment at the Company's discretion and convertible to a royalty under certain circumstances.

Pursuant to the Genentech Agreement, XmAb306 is designated as a development program and all costs incurred for developing both XmAb306 is being shared with Genentech under the initial cost-sharing percentage.

Under the Genentech Agreement, the Company and Genentech will conduct joint research activities for a two-year period to identify and discover additional IL-15 candidates developed from the Company's cytokine and bispecific technologies. The two-year research term may be extended an additional year if both parties agree. The Company and Genentech are each responsible for their own costs in conducting the research activities. The Company is eligible for clinical milestone payments for new Collaboration Products identified from the research efforts.

The Company evaluated the Genentech Agreement under the provisions of ASU No. 2014-09, *Revenue from Contracts with Customers* and all related amendments (collectively, ASC 606) as well as ASC 808, *Collaborative Arrangements*. Certain provisions of the Genentech Agreement including the cost-sharing of development programs are governed by ASC 808. We have determined that Genentech is a customer for purposes of the delivery of specific performance obligations under the Genentech Agreement and applied the provisions of ASC 606 to the transaction.

The Company identified the following performance obligations under the Genentech Agreement: (i) the license of XmAb306 and (ii) research services during a two-year period to identify up to potentially nine additional IL-15 candidates, each a separate research program and a separate performance obligation. The Company determined that the license and each of the potential research programs are separate performance obligations because they are capable of being distinct and are distinct in the context of the Genentech Agreement. The license to XmAb306 has standalone functionality as Genentech has exclusive worldwide rights to the program, including the right to sublicense to third parties. Upon the transfer of the license of XmAb306, Genentech could develop and commercialize XmAb306 without further assistance from the Company. The Company determined that the research services for each potential additional IL-15 candidate and research program were separate standalone performance obligations. The Genentech Agreement provides an outline of an integrated research plan for the programs to be conducted by the two companies, and the research activities are separate and distinct from the license to XmAb306. In October 2020, an additional program was declared a Collaboration Program under the Agreement, and the Company completed its performance obligation for that specific research program as the program and licensed rights were transferred to Genentech.

The Company determined the standalone selling price of the license to be $114.4 million using the adjusted market assessment approach considering similar collaboration and license agreements and transactions. The standalone selling price for the research activities for all nine of the potential IL-15 programs to be performed during the research term was determined to be $8.5 million using the expected cost approach which was derived from the Company's experience and information from providing similar research activities to other parties.

The Company determined that the transaction price of the Genentech Agreement at inception was $120.0 million consisting of the upfront payment. The potential milestones are not included in the transaction price as these are contingent on future events and the Company would not recognize these in revenue until it is not probable that these would not result in significant reversal of revenue amounts in future periods. The Company will re-assess the transaction price at each reporting period and when event outcomes are resolved or changes in circumstances occur.

The Company allocated the transaction price to each of the separate performance obligations using the relative standalone selling price with $111.7 million allocated to the license to XmAb306, $4.1 million allocated to the additional program and $4.2 million allocated to the research services.

The Company recognized the $111.7 million allocated to the license when it satisfied its performance obligation and transferred the license to Genentech in March 2019. The license was transferred upon the effective date of the Genentech Agreement, and the $8.3 million allocated to the research activities is being recognized over a period of time through the end of the research term or the time that a program is delivered to Genentech. A total of $3.5 million and $2.2 million of revenue related to the research activities was recognized for the years ended December 31, 2020 and December 31, 2019, respectively.

For the years ended December 31, 2020 and December 31, 2019, we recognized $3.5 million and $113.9 million of income, respectively from the Genentech Agreement. As of December 31, 2020, there is a $3.2 million payable related to cost-sharing development activities during the fourth quarter of 2020. There is $2.5 million in deferred revenue as of December 31, 2020 which reflects our obligation to perform research services during the remaining research term.

Astellas

Effective March 29, 2019, the Company entered into a Research and License Agreement (Astellas Agreement) with Astellas Pharma Inc. (Astellas) pursuant to which the Company and Astellas will conduct a discovery program to characterize compounds and products for development and commercialization. Under the Astellas Agreement, Astellas was granted a worldwide exclusive license, with the right to sublicense products in the field created by the research activities.

Pursuant to the Astellas Agreement, the Company applied its bispecific Fc technology to research antibodies provided by Astellas to generate bispecific antibody candidates and returned the candidates to Astellas for further development and commercialization. The activities were conducted under a research plan agreed to by both parties to the Astellas Agreement. Astellas will assume full responsibility for development and commercialization of the antibody candidate. Pursuant to the Astellas Agreement, the Company received an upfront payment of $15.0 million and is eligible to receive up to $240.0 million in milestones, which include $32.5 million in development milestones, $57.5 million in regulatory milestones and $150.0 million in sales milestones. If commercialized, the Company is eligible to receive royalties on net sales that range from the high-single to low-double digit percentages.

We evaluated the Astellas Agreement under ASC 606 and identified the performance obligations under the Agreement to be (i) delivery of bispecific antibodies to Astellas from the antigen provided by Astellas and (ii) research activities against the bispecific antibodies as outlined in the research plan.

The Company determined the standalone selling price of the bispecific deliverable to be $17.1 million and the standalone selling price for the research activities to be performed was determined to be $1.4 million.

The Company determined that the transaction price of the Astellas Agreement is $17.5 million consisting of the upfront payment and an initial milestone of $2.5 million for Astellas initiating an IND enabling study. The additional milestones are not included in the transaction price as these are contingent on future events, and the Company would not recognize these in revenue until it is not probable that these would not result in significant reversal of revenue amounts in future periods. The Company will re-assess the transaction price at each reporting period and when event outcomes are resolved or changes in circumstances occur.

The Company allocated the transaction price to each of the separate performance obligations using the relative standalone selling price with $16.1 million allocated to delivery of the bispecific antibodies and the remainder of $1.4 million was allocated to the research activities.

The Company recognized the $13.6 million allocated to the bispecific antibodies when it satisfied its performance obligation to Astellas in 2019 and recognized $2.5 million related to the milestone in 2020. The $1.4 million allocated to the research activities was recognized as the research services were completed.

We recognized $3.5 million and $14.0 million of revenue under this arrangement for the years ended December 31, 2020 and December 31, 2019, respectively. There is a $2.5 million contract asset recorded at December 31, 2020 related to a milestone. There is zero and $1.0 million in deferred revenue as of December 31, 2020 and December 31, 2019, respectively.

Novartis

In June 2016, the Company entered into a Collaboration and License Agreement (Novartis Agreement) with Novartis Institutes for BioMedical Research, Inc. (Novartis), to develop and commercialize bispecific and other Fc engineered antibody drug candidates using the Company's proprietary XmAb technologies and drug candidates. Pursuant to the Novartis Agreement:

- The Company granted Novartis certain exclusive rights to research, develop and commercialize XmAb14045 (vibecotamab) and XmAb13676 (plamotamab), two development stage products that incorporate the Company's bispecific Fc technology;
- The Company will apply its bispecific technology in up to four target pair antibodies identified by Novartis (each a Global Discovery Program); and
- The Company will provide Novartis with a non-exclusive license to certain of its Fc technologies to apply against up to ten targets identified by Novartis.

In December 2018, Novartis notified the Company it was terminating its rights with respect to the plamotamab program, which became effective June 2019. Under the Novartis Agreement, Novartis is responsible to fund its share of plamotamab development costs through June 2020. In November 2019, the Company and Novartis amended the Agreement, and Novartis paid the Company $1.4 million in settlement of its projected remaining cost-sharing due for the plamotamab program.

We completed delivery of a Global Discovery Program in 2017 and delivery of a second Global Discovery Program in 2018. In December 2019, Novartis dosed a patient in a Phase 1 study with an undisclosed bispecific antibody that is a Global Discovery Program, and we received a $10.0 million milestone payment.

Novartis will assume full responsibility for development and commercialization of each product candidate under each of the Global Discovery Programs.

Under ASC 606, revenue is recognized at the time that the Company's performance obligation for each Global Discovery is completed upon delivery of each discovery program to Novartis. The Company delivered a discovery program to Novartis in 2017 and recognized $20.1 million of revenue in the period of delivery. In the third quarter of 2018, the Company delivered a second discovery program to Novartis and recognized an additional $20.0 million of revenue. In the third quarter of 2019, Novartis received notice of approval for an investigational new study (IND) from the Food and Drug Administration (FDA) for an application submitted for a Global Discovery Program, and we recognized $10.0 million of revenue.

During the year ended December 31, 2019 and 2018, the Company recognized $10.0 million and $20.0 million of revenue respectively. No revenue was recognized during the year ended December 31, 2020. There is a receivable of $0.9 million and $12.2 million as of December 31, 2020 and December 31, 2019, respectively, related to the arrangement, and we have recorded $40.1 million in deferred revenue as of December 31, 2020 related to the arrangement.

Amgen Inc.

In September 2015, the Company entered into a research and license agreement (the Amgen Agreement) with Amgen Inc. (Amgen) to develop and commercialize bispecific antibody product candidates using the Company's proprietary XmAb® bispecific Fc technology. Under the Amgen Agreement, the Company granted an exclusive license to Amgen to develop and commercialize bispecific drug candidates from the Company's preclinical CD38 Program. The Company also agreed to apply its bispecific technology to five previously identified Amgen provided targets (each a Discovery Program). The Company received a $45.0 million upfront payment and milestones totaling $15.5 million from Amgen and is eligible to receive up to $255.0 million in future development, regulatory and sales milestones in total for programs in development and is eligible to receive royalties on any global net sales of products.

Amgen will assume full responsibility for development and commercialization of product candidates under each of the Discovery Programs.

The Company evaluated the Amgen Agreement under ASC 606 and determined that it is a customer and that delivery of the CD38 Program and each of the five Discovery Programs represent the performance obligations under the contract.

The Company determined the transaction price at inception is the $45.0 million upfront payment to be allocated to the performance obligations. The Amgen Agreement includes variable consideration for potential future milestones and royalties that were contingent on future success factors for development programs. The Company used the "most likely" method to determine the variable consideration. In 2019, the Company recognized a $5.0 million milestone related to one of the Discovery Programs. No other development, regulatory or sales milestones or royalties were included in the transaction price. The Company will re-evaluate the transaction price in each reporting period and as uncertain events are resolved or other changes in circumstances occur.

The Company completed performance obligations under the Amgen Agreement. In the third quarter of 2019, a $5.0 million milestone was recognized in connection with a development milestone for a Discovery Program.

During the years ended December 31, 2019 and 2018, the Company recognized $5.0 million and $0.6 million in revenue, respectively, under this arrangement. No revenue was recognized for the year ended December 31, 2020. As of December 31, 2020, there was no deferred revenue related to the arrangement.

MorphoSys AG

In June 2010, the Company entered into a Collaboration and License Agreement with MorphoSys AG (MorphoSys), which was subsequently amended in March 2012 and in 2020. The agreement provides MorphoSys with an exclusive worldwide license to the Company's patents and know-how to research, develop, and commercialize the Company's XmAb5574 product candidate (subsequently renamed MOR208 and tafasitamab) with the right to sublicense under certain conditions. If certain developmental, regulatory, and sales milestones are achieved, the Company is eligible to receive future milestone payments and royalties.

The Company recognized a total of $37.5 million of milestone revenue related to regulatory submission and approval of MorphoSys' tafasitamab in the U.S., now Monjuvi, and royalties of $1.5 million on net sales of Monjuvi for the year ended December 31, 2020. There were no revenues recognized under this arrangement for the years ended December 31, 2019 and 2018. As of December 31, 2020, the Company has no deferred revenue related to this agreement and has recorded a receivable of $1.2 million for royalties due.

Alexion Pharmaceuticals, Inc.

In January 2013, the Company entered into an option and license agreement with Alexion Pharmaceuticals, Inc. (Alexion). Under the terms of the agreement, the Company granted to Alexion an exclusive research license, with limited sublicensing rights, to make and use our Xtend technology. Alexion exercised its rights to include our technology in ALXN1210, which is now marketed as Ultomiris.

The Company is eligible to receive contractual milestones for certain development, regulatory and commercial achievements, and the Company is also entitled to receive royalties based on a percentage of net sales of such products sold by Alexion, its affiliates or its sub licensees, which percentage is in the low single digits. Alexion's royalty obligations continue on a product-by-product and country-by-country basis until the expiration of the last-to-expire valid claim in a licensed patent covering the applicable product in such country.

In 2018, Alexion completed certain regulatory submissions and regulatory approvals for Ultomiris, and the Company received $20.0 million in milestone payments.

In 2019, Alexion completed certain regulatory submissions for Ultomiris, and the Company received a total of $8.0 million in milestone payments. During 2019, the Company also recorded royalty revenue of $5.0 million in connection with reported net sales of Ultomiris by Alexion.

In 2020, the Company received $10.0 million for the achievement of certain sales milestones of Ultomiris in 2020 and also recorded royalty revenue of $16.2 million on net sales.

The total revenue recognized under this arrangement was $26.2 million, $13.0 million, and $20.0 million for the years ended December 31, 2020, 2019, and 2018, respectively. As of December 31, 2020, there is a receivable of $8.8 million, and there is no deferred revenue related to this agreement.

Gilead Sciences, Inc.

In January 2020, the Company entered into a Technology License Agreement (the Gilead Agreement) with Gilead Sciences, Inc. (Gilead), in which the Company provided Gilead an exclusive license to its Cytotoxic Fc and Xtend Fc technologies for an initial identified antibody and options for up to three additional antibodies directed to the

same molecular target. Gilead is responsible for all development and commercialization activities for all target candidates. The Company received an upfront payment of $6.0 million and is eligible to receive up to $67.0 million in milestones, which include $10.0 million in development milestones, $27.0 million in regulatory milestones and $30.0 million in sales milestones for each product incorporating the antibodies selected. In addition, the Company is eligible to receive royalties in the low-single digit percentage range on net sales of approved products.

In the second quarter of 2020, Gilead exercised options on three additional antibody compounds, and in April 2020, we received a total of $7.5 million in payment of the three options.

The Company evaluated the Gilead Agreement under the revenue recognition standard ASC 606 and identified the following performance obligations that it deemed to be distinct at the inception of the contract:

- non-exclusive license to its Cytotoxic Fc and Xtend Fc technologies; and
- options for four exclusive commercial licenses to incorporate the licensed technologies on approved target compounds.

The Company considered the licenses as functional intellectual property as Gilead has the right to use the technologies at the time that the Company transfers such rights. Each of the four options is considered a separate performance obligation as the arrangement does not confer material rights to the options without payment of the option exercise fee. Gilead will benefit from each option upon exercise of each of the four options and payment of each option fee as Gilead has access to each technology at inception of the arrangement and the rights are transferred upon payment of each option fee.

The total transaction price is $13.5 million which includes the upfront payment of $6.0 million and the option fee payment of $7.5 million which was contractually due with the exercise of the three options by Gilead. The milestone payments are variable consideration to which the Company applied the “most likely amount” method and concluded at inception of the Gilead Agreement it is unlikely that the Company will collect such payments. The milestone payments were not included in the transaction price, and the Company will review this conclusion and update at each reporting period.

The Company allocated $3.5 million of the transaction price to the licenses to the cytotoxic Fc and Xtend Fc technologies and recognized income for the licenses at inception of the arrangement when Gilead began benefiting access to them. The Company allocated $2.5 million to the initial option exercise which was effective at inception of the arrangement and payment of the upfront amount, and the Company allocated $7.5 million to the three remaining options which became effective in April 2020 when Gilead paid the option fees.

The Company recognized $13.5 million of revenue related to the Gilead Agreement for the year ended December 31, 2020. There is no deferred revenue as of December 31, 2020 related to this agreement.

Omeros Corporation

In August 2020, the Company entered into a Technology License Agreement (the Omeros Agreement) with Omeros Corporation (Omeros), in which the Company provided Omeros a non-exclusive license to its Xtend Fc technology, an exclusive license to apply its Xtend technology to an initial identified antibody and options to apply its Xtend technology to three additional antibodies. Omeros is responsible for all development and commercialization activities for all target candidates. The Company received an upfront payment of $5.0 million and is eligible to receive up to $65.0 million in milestones, which include $15.0 million in development milestones, $25.0 million in regulatory milestones and $25.0 million in sales milestones for each product incorporating the antibodies selected. In addition, the Company is eligible to receive royalties in the mid-single digit percentage range on net sales of approved products.

The Company evaluated the Omeros Agreement under the revenue recognition standard ASC 606 and identified the following performance obligations that it deemed to be distinct at the inception of the contract:

- non-exclusive license to its Xtend Fc technologies; and
- options for four exclusive commercial licenses to incorporate the licensed technologies on approved target compounds.

The Company considered the license as functional intellectual property as Omeros has the right to use the technology at the time that the Company transfers such rights. Each of the four options is considered a separate performance obligation as the arrangement does not confer material rights to the options without payment of the option exercise fee. Omeros will benefit from each option upon exercise of each of the four options and payment of each option fee as Omeros has access to each technology at inception of the arrangement and the rights are transferred upon payment of each option fee.

The total transaction price is $5.0 million, which includes the upfront payment. The milestone payments are variable consideration to which the Company applied the “most likely amount” method and concluded at inception of the Omeros Agreement it is unlikely that the Company will collect such payments. The milestone payments were not included in the transaction price and the Company will review this conclusion and update at each reporting period.

The Company allocated $2.0 million of the transaction price to the licenses to the Xtend Fc technology and recognized income for the licenses at inception of the arrangement when Omeros began benefiting access to it. The Company allocated $3.0 million to the initial option exercise which was effective at inception of the arrangement.

The Company recognized $5.0 million of revenue related to the Omeros Agreement for the year ended December 31, 2020. There is no deferred revenue as of December 31, 2020 related to this agreement.

MiRagen Therapeutics, Inc./Viridian Therapeutics, Inc.

In December 2020, we entered into a Technology License Agreement (MiRagen Agreement) with MiRagen Therapeutics, Inc. (MiRagen), in which we provided MiRagen a non-exclusive license to our Xtend Fc technology and an exclusive license to apply our Xtend Fc technology to antibodies targeting IGF-1R. MiRagen subsequently changed its name to Viridian Therapeutics, Inc. Viridian is responsible for all development and commercialization activities. We received an upfront payment of 322,407 shares of Viridian common stock valued at $6.0 million and are eligible to receive up to $55.0 million in milestones, which include $10.0 million in development milestones, $20.0 million in regulatory milestones and $25.0 million in sales milestones. We are also eligible to receive royalties in the mid-single digit percentage range on net sales of approved products.

The Company evaluated the MiRagen Agreement under the revenue recognition standard ASC 606 and identified the following performance obligation that it deemed to be distinct at the inception of the contract:

- non-exclusive license to its Xtend Fc technologies

The Company considered the license as functional intellectual property as MiRagen has the right to use the technology at the time that the Company transfers such rights.

The total transaction price is $6.0 million, which includes the upfront payment of 322,407 MiRagen shares at their fair value at the date of the Agreement. The milestone payments are variable consideration to which the Company applied the “most likely amount” method and concluded at inception of the MiRagen Agreement it is unlikely that the Company will collect such payments. The milestone payments were not included in the transaction price, and the Company will review this conclusion and update at each reporting period.

The Company allocated $6.0 million of the transaction price to the licenses to the Xtend Fc technology and recognized income for the licenses at inception of the arrangement when MiRagen began benefiting access to it. The Company recognized $6.0 million of revenue related to the MiRagen Agreement for the year ended December 31, 2020. There is no deferred revenue as of December 31, 2020 related to this agreement.

Private Biotech Company License Agreement

In November 2020, the Company entered into a License Agreement with a newly formed, privately held biotechnology company (Private BioCo) pursuant to which the Company granted Private BioCo exclusive worldwide rights to develop and commercialize to three preclinical-stage Fc-engineered drug candidates: XmAb6755, XPro9523 and XmAb10717. Under the Agreement, Private BioCo will be responsible for all further development and commercialization activities for XmAb6755, XPro9523 and XmAb10717. The Company received a 15% equity interest in Private BioCo with a fair value of $16.1 million, and the Company is eligible to receive royalties on net sales of approved products in the mid-single digit to mid-teen percentage range.

Under the License Agreement, Private BioCo received exclusive worldwide rights to manufacture, develop and commercialize XmAb6755, XPro9523 and XmAb10717. They also received the rights to all data, information and research materials related to the three preclinical stage programs.

The Company evaluated the License Agreement under the revenue recognition standard ASC 606 and identified the following performance obligations that it deemed to be distinct at the inception of the contract:

- exclusive license to the XmAb6755, XPro9523 and XmAb10717 drug candidates; and
- rights to material, data, and information that the Company had accumulated in connection with conducting preclinical activities for each of the three programs and intellectual property filings and information.

The Company considered the licenses as functional intellectual property as Private BioCo has the right to use each of XmAb6755, XPro9523 and XmAb10717 at the time that the Company transfers such rights. The rights to the preclinical programs' data are not considered to be separate from the license to programs as Private BioCo cannot benefit from the license without the supporting data and documentation.

The total transaction price is $16.1 million, which includes the upfront payment of 15% of the equity of Private BioCo at its fair value at the date of the Agreement. The License Agreement includes variable consideration for potential future royalties that were contingent on future success factors for the licensed programs. The Company used the "most likely amount" method to determine the variable consideration. None of the royalties were included in the transaction price. The Company will re-evaluate the transaction price in each reporting period as uncertain events are resolved or other changes in circumstances occur.

The Company determined the transaction price at inception of the License Agreement and allocated it to the performance obligation, delivery of the XmAb6755, XPro9523 and XmAb10717 licenses.

The Company completed delivery of its performance obligations in December 2020. The licenses to XmAb6755, XPro9523, and XmAb10717 were transferred to Private BioCo at inception of the Agreement, and the related research data and documentation was transferred to Private BioCo in December 2020.

The Company recognized $16.1 million of revenue related to the agreement for the year ended December 31, 2020. There is no deferred revenue as of December 31, 2020 related to this agreement.

INmune Bio, Inc.

In October 2017, the Company entered into a License Agreement with INmune Bio, Inc. (INmune). Under the terms of the agreement, the Company provided INmune with an exclusive license to certain rights to a proprietary protein, XPro1595. Under the agreement the Company received an upfront payment of $100,000, 1,585,000 shares of INmune common stock and an option to purchase an additional 10% interest of the fully diluted shares of INmune for $10.0 million. The Company is eligible to receive a percentage of sublicensing revenue received for XPro1595 and also royalties in the mid-single digit percent range on the sale of approved products.

In 2018, INmune filed a registration statement on a Form S-1 with the Securities and Exchange Commission (SEC) which was declared effective by the SEC on December 19, 2018.

Under ASC 606, the Company determined that the performance obligation under the agreement was the license to XPro1595, and performance occurred at the effective date of the agreement. The total consideration under the agreement was determined to be $100,000 as the equity interest, and the option at inception of the Agreement had an insignificant fair value. The Company recognized $100,000 as revenue related to the agreement for the year ended December 31, 2017 and did not recognize any revenue related to the agreement for the years ended December 31, 2020, 2019, or 2018. There is no deferred revenue as of December 31, 2020 related to this agreement. The INmune shares are recorded at cost on the Company's balance sheet as of December 31, 2020.

Vir Biotechnology, Inc.

In 2019, the Company entered into a Patent License Agreement (the Vir Agreement) with Vir Biotechnology (Vir) pursuant to which the Company provided a non-exclusive license to its Xtend technology for up to two targets. Under the terms of the Vir Agreement, the Company received an upfront payment and is eligible to receive total milestones of $155.0 million which include $5.0 million of development milestones, $30.0 million of regulatory milestones and $120.0 million of sales milestones. In addition, the Company is eligible to receive royalties on the net sales of approved products in the low-single digits.

The Company evaluated the Vir Agreement and determined that the single performance obligation was access to a non-exclusive license to certain patents of the Company which were transferred to Vir upon execution of the Vir Agreement in July 2019.

Vir initiated a Phase 1 study with a licensed antibody in 2019, and in the second quarter of 2020, it initiated a Phase 1 study with a second licensed antibody.

In March 2020, the Company entered into a second Patent License Agreement (the Second Vir Agreement) with Vir pursuant to which the Company provided a non-exclusive license to its Xtend technology to extend the half-life of novel antibodies Vir is investigating as potential treatments for patients with COVID-19. Under the terms of the Second Vir Agreement, Vir is responsible for all research, development, regulatory and commercial activities for the antibody, and the Company is eligible to receive royalties on the net sales of approved products in the mid-single digit percentage range.

Vir initiated a Phase 3 study with a licensed antibody to treat patients with COVID-19 in 2020.

The Company determined that the Second Vir Agreement was a modification of the original agreement, and the transfer of the license occurred at inception of the Vir Agreement. The total consideration under the arrangement did not change with the Second Vir Agreement as the Company will potentially receive additional royalty revenue which is variable consideration and is not included in the transaction price.

The Company recognized $0.3 million and $0.8 million of license and milestone revenue related to the agreement for the years ended December 31, 2020 and 2019, respectively. There is no deferred revenue as of December 31, 2020 related to this agreement.

Revenue Earned

The $122.7 million, $156.7 million, and $40.6 million of revenue recorded for the years ended December 31, 2020, 2019 and 2018, respectively, were earned principally from the following licensees (in millions):

	Year Ended December 31,		
	2020	2019	2018
Aimmune	$ 9.6	$ —	$ —
Amgen	—	5.0	0.6
Alexion	26.2	13.0	20.0
Astellas	3.5	14.0	—
Genentech	3.5	113.9	—
Gilead	13.5	—	—
MiRagen/Viridian	6.0	—	—
MorphoSys	39.0	—	—
Novartis	—	10.0	20.0
Omeros	5.0	—	—
Vir	0.3	0.8	—
Private BioCo	16.1	—	—
Total	$ 122.7	$ 156.7	$ 40.6

The table below summarizes the disaggregation of revenue recorded for the years ended December 31, 2020, 2019 and 2018 (in millions):

	Year Ended December 31,		
	2020	2019	2018
Research collaboration	$ 4.5	$ 16.3	$ 20.1
Milestone	50.2	23.2	20.5
Licensing	50.2	112.2	—
Royalties	17.8	5.0	—
Total	$ 122.7	$ 156.7	$ 40.6

A portion of our revenue is earned from collaboration partners outside the United States. Non-U.S. revenue is denominated in U.S. dollars. A breakdown of our revenue from U.S. and non-U.S. sources for the years ended December 31, 2020, 2019 and 2018 is as follows (in millions):

	Year Ended December 31,		
	2020	2019	2018
U.S. Revenue	$ 64.1	$ 142.7	$ 40.6
Non-U.S. Revenue	58.6	14.0	—
Total	$ 122.7	$ 156.7	$ 40.6

Remaining Performance Obligations and Deferred Revenue

Our remaining performance obligations are delivery of two additional Global Discovery Programs under the Novartis Agreement and conducting research activities pursuant to research plans under the Genentech and Janssen Agreements. As of December 31, 2020 and 2019, we have deferred revenue of $92.6 million and $47.1 million, respectively. All of the deferred revenue was classified as short term as of December 31, 2020 as our obligations to perform research services are due on demand when requested by Novartis, Genentech and Janssen under the respective Agreements. As of December 31, 2019, $45.2 million of deferred revenue was classified as current liabilities as our

obligations to perform services are due on demand when requested by Novartis and Astellas under the Novartis and Astellas Agreements, respectively. A total of $1.9 million of deferred liability is classified as long-term for the obligation to perform research services to Genentech under the Genentech Agreement after one year.

11. 401(k) Plan

We have a 401(k)-plan covering all full-time employees. Employees may make pre-tax contributions up to the maximum allowable by the Internal Revenue Code. Effective January 1, 2018, the Company contributes 100% of the first 1% of participating employees' contribution and 50% of the next 5% of participating employees' contribution, for a maximum of 3.5% employer contribution. Effective March 31, 2020, the Company contributes 100% of the first 1% of participating employees' contribution and 50% of the next 6% of participating employees' contribution, for a maximum of 4.0% of employer contribution. Participants are immediately vested in their employee contributions; employer contributions are vested over a three-year period with one-third for each year of a participating employee's service. Employer contributions made for the years ended December 31, 2020, 2019, and 2018 were $0.8 million, $0.6 million and $0.5 million, respectively.

12. Condensed Quarterly Financial Data (unaudited)

The following table contains selected unaudited financial data for each quarter of 2020 and 2019. The unaudited information should be read in conjunction with the Company's financial statements and related notes included elsewhere in this Annual Report. The Company believes that the following 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.

Quarterly Financial Data (in thousands, except per share data):

	2020 Quarter Ended			
	March 31,	June 30,	September 30,	December 31,
Total revenue	$ 32,385	$ 13,089	$ 35,366	$ 41,854
Loss from operations	(8,777)	(37,600)	(16,722)	(13,698)
Net loss	(8,074)	(35,018)	(12,550)	(13,691)
Basic net loss per common share	(0.14)	(0.61)	(0.22)	(0.24)
Diluted net loss per common share	(0.14)	(0.61)	(0.22)	(0.24)

	2019 Quarter Ended			
	March 31,	June 30,	September 30,	December 31,
Total revenue	$ 111,939	$ 19,485	$ 21,760	$ 3,516
Income (loss) from operations	78,244	(19,572)	(14,276)	(30,572)
Net income (loss)	80,045	(16,034)	(10,224)	(26,912)
Basic net income (loss) per common share	1.42	(0.28)	(0.18)	(0.47)
Diluted net income (loss) per common share	1.38	(0.28)	(0.18)	(0.47)

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

Not applicable.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2020. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by us in the reports that we file or submit under the

Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. Based on this evaluation our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of December 31, 2020 at the reasonable assurance level.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended). Our management, Chief Executive Officer and Chief Financial Officer, assessed the effectiveness of our internal control over financial reporting as of December 31, 2020. In making this assessment, our management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (2013 Framework) (COSO) in Internal Control—Integrated Framework. Based on that assessment and using the COSO criteria, our management, Chief Executive Officer and Chief Financial Officer have concluded that, as of December 31, 2020, our internal control over financial reporting was effective.

Changes in Internal Control over Financial Reporting

There has been no change in our internal control over financial reporting during the year ended December 31, 2020, that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations of Controls

Management does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent or detect all error and all fraud. Controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the Company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with the policies or procedures. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

Attestation in Internal Control over Financial Reporting

RSM US LLP, our independent registered public accounting firm, has audited our financial statements for the year ended December 31, 2020 and has issued an audit report on the effectiveness of the Company's internal control over financial reporting as of December 31, 2020, which is included in Item 8 of this Annual Report.

Item 9B. Other Information

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

We have adopted a code of ethics for directors, officers (including our principal executive officer, principal financial officer and principal accounting officer) and employees, known as the Code of Business Conduct and Ethics. The Code of Business Conduct and Ethics is available on our website at *http://www.xencor.com* under the Corporate Governance section of our Investor Relations page. We will promptly disclose on our website (i) the nature of any amendment to the policy that applies to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions and (ii) the nature of any waiver, including an implicit waiver, from a provision of the policy that is granted to one of these specified individuals that is required to be disclosed pursuant to SEC rules and regulations, the name of such person who is granted the waiver and the date of the waiver.

The other information required by this item and not set forth below will be set forth in our 2021 Annual Meeting of Stockholders (Proxy Statement) to be filed with the SEC within 120 days after the end of the fiscal year ended December 31, 2020 and is incorporated herein by reference.

Audit Committee

The information required by this item will be set forth in the Proxy Statement and is incorporated herein by reference.

Item 11. Executive Compensation

The information required by this item will be set forth in the Proxy Statement and is incorporated herein by reference.

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

The information required by this item will be set forth in the Proxy Statement and is incorporated herein by reference.

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

The information required by this item will be set forth in the Proxy Statement and is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services

The information required by this item will be set forth in the Proxy Statement and is incorporated herein by reference.

Item 15. Exhibits, Financial Statement Schedules

1. *Financial Statements.* We have filed the following documents as part of this Annual Report:

	Page
Report of Independent Registered Public Accounting Firm (RSM US LLP)	76
Balance Sheets	79
Statements of Comprehensive Income (Loss)	80
Statements of Stockholders' Equity	81
Statements of Cash Flows	82
Notes to Financial Statements	83

2. *Financial Statement Schedules.* All schedules have been omitted because they are not applicable or required, or the information required to be set forth therein is included in the Financial Statements or notes thereto included in Item 8 of this Annual Report on Form 10-K.

3. *Exhibits.*

Exhibit Number	Description
3.1	Amended and Restated Certificate of Incorporation of the Company (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, filed with the SEC on December 11, 2013).
3.2	Amended and Restated Bylaws of the Company (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K, filed with the SEC on December 11, 2013).
4.1	Form of Common Stock Certificate of the Company (incorporated by reference to Exhibit 4.1 to the Company's Registration Statement on Form S-1, as amended (File No. 333-191689), originally filed with the SEC on October 25, 2013).
4.2*	Third Amended and Restated Investor Rights Agreement, dated June 26, 2013, among the Company and certain of its stockholders incorporated by reference to Exhibit 4.2 to the Company's Registration Statement on Form S-1, as amended (File No. 333-191689), originally filed with the SEC on October 11, 2013).
4.3	Description of the Common Stock of the Company (incorporated by reference to Exhibit 4.3 to the Company's Form 10-K filed with the SEC on February 25, 2020).
10.1*	Form of Indemnity Agreement between the Company and its directors and officers (incorporated by reference to Exhibit 10.1 to the Company's Registration Statement on Form S-1, as amended (File No. 333-191689), originally filed with the SEC on October 11, 2013).
10.2*	Xencor, Inc. 2010 Equity Incentive Plan, as amended, and Form of Stock Option Grant Notice, Option Agreement and Form of Notice of Exercise (incorporated by reference to Exhibit 10.2 to the Company's Registration Statement on Form S-1, as amended (File No. 333-191689), originally filed with the SEC on October 11, 2013).
10.3*	Xencor, Inc. 2013 Equity Incentive Plan and Form of Stock Option Agreement and Form of Stock Option Grant Notice thereunder (incorporated by reference to Exhibit 10.3 to the Company's Registration Statement on Form S-1, as amended (File No. 333-191689), originally filed with the SEC on October 11, 2013).

10.4*	Xencor, Inc. 2013 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.4 to the Company's Registration Statement on Form S-1, as amended (File No. 333-191689), originally filed with the SEC on October 11, 2013).
10.5*	Second Amended and Restated Executive Employment Agreement, dated January 1, 2007, by and between the Company and Dr. Bassil I. Dahiyat (incorporated by reference to Exhibit 10.6 to the Company's Registration Statement on Form S-1, as amended (File No. 333-191689), originally filed with the SEC on October 11, 2013).
10.6*	Amended and Restated Executive Employment Agreement, dated September 4, 2013, by and between the Company and Dr. Bassil I. Dahiyat (incorporated by reference to Exhibit 10.12 to the Company's Registration Statement on Form S-1, as amended (File No. 333-191689), originally filed with the SEC on October 11, 2013).
10.7*	Amended and Restated Severance Agreement, dated September 5, 2013, by and between the Company and Dr. John R. Desjarlais (incorporated by reference to Exhibit 10.14 to the Company's Registration Statement on Form S-1, as amended (File No. 333-191689), originally filed with the SEC on October 11, 2013).
10.8*	Amended and Restated Change in Control Agreement, dated September 5, 2013, by and between the Company and John J. Kuch (incorporated by reference to Exhibit 10.15 to the Company's Registration Statement on Form S-1, as amended (File No. 333-191689), originally filed with the SEC on October 11, 2013).
10.9†	Collaboration and License Agreement, dated June 27, 2010, by and between the Company and MorphoSys AG (incorporated by reference to Exhibit 10.19 to the Company's Registration Statement on Form S-1, as amended (File No. 333-191689), originally filed with the SEC on October 11, 2013).
10.10†	First Amendment to the Collaboration and License Agreement, dated March 23, 2012, by and between the Company and MorphoSys AG (incorporated by reference to Exhibit 10.20 to the Company's Registration Statement on Form S-1, as amended (File No. 333-191689), originally filed with the SEC on October 11, 2013).
10.11†	Cross-License Agreement, dated December 19, 2012, by and between the Company and MedImmune, LLC (incorporated by reference to Exhibit 10.26 to the Company's Registration Statement on Form S-1, as amended (File No. 333-191689), originally filed with the SEC on October 11, 2013).
10.12	Lease dated January 1, 2015 by and between the Company and BF Monrovia, LLC (incorporated by reference to Exhibit 99.1 to the Company's Form 8-K filed with the SEC on January 5, 2015).
10.13	Amendment to Lease dated January 27, 2015 by and between the Company and BF Monrovia, LLC. (incorporated by reference to Exhibit 10.27 to the Company's Form 10-K filed with the SEC on February 20, 2015).
10.14†	Research and License Agreement effective September 15, 2015 between the Company and Amgen Inc., (incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q filed with the SEC on November 4, 2015).
10.15*	Severance Agreement, dated May 26, 2016 by and between the Company and Bassil Dahiyat (incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q filed with the SEC on August 3, 2016).
10.16*	Severance Agreement, dated May 26, 2016 by and between the Company and John Kuch (incorporated by reference to Exhibit 10.2 to the Company's Form 10-Q filed with the SEC on August 3, 2016).

10.17*	Severance Agreement, dated May 26, 2016 by and between the Company and John Desjarlais (incorporated by reference to Exhibit 10.3 to the Company's Form 10-Q filed with the SEC on August 3, 2016).
10.18†	Collaboration and License Agreement, dated June 26, 2016, by and between the Company and Novartis Institutes for BioMedical Research, Inc. (incorporated by reference to Exhibit 10.6 to the Company's Form 10-Q filed with the SEC on August 3, 2016).
10.29†	Amendment No. 1, dated September 21, 2016, to the Collaboration and License Agreement by and between the Company and Novartis Institutes for BioMedical Research, Inc. (incorporated by reference to Exhibit 10.2 to the Company's Form 10-Q filed with the SEC on November 2, 2016).
10.20	Office Lease, dated June 21, 2017, by and among the Company and PRII High Bluffs LLC and Collins Corporate Center Partners, LLC (incorporated by reference to Exhibit 99.1 to the Company's Form 8-K filed with the SEC on June 26, 2017).
10.21	Second Amendment to Lease, dated July 5, 2017, by and between the Company and 111 Lemon Investors LLC (incorporated by reference to Exhibit 99.1 to the Company's Form 8-K filed with the SEC on July 10, 2017).
10.22†	Collaboration and License Agreement, dated February 4, 2019, by and between the Company and Genentech, Inc. and F. Hoffman-La Roche LTD (incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q filed with the SEC on May 9, 2019).
10.23*	Xencor, Inc. Amended and Restated Non-Employee Director Compensation Policy (incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q filed with the SEC on November 5, 2019).
10.24*	Employment Agreement dated August 5, 2019 by and between the Company and Celia Eckert (incorporated by reference to Exhibit 10.33 to the Company's Form 10-K filed with the SEC on February 25, 2020).
10.25*	Employment Agreement dated November 13, 2019 by and between the Company and Dr. Allen Yang, M.D., Ph.D. (incorporated by reference to Exhibit 10.34 to the Company's Form 10-K filed with the SEC on February 25, 2020).
10.26	Third Amendment to Lease, dated April 30, 2020, by and between the Company and 111 Lemon Investors LLC (incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q filed with the SEC on August 5, 2020).
10.27	Xencor, Inc. Amended and Restated Non-Employee Director Compensation Policy (incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q filed with the SEC on November 6, 2020).
10.28	Fourth Amendment to Lease, dated September 30, 2020, by and between the Company and 111 Lemon Investors LLC (incorporated by reference to Exhibit 10.2 to the Company's Form 10-Q filed with the SEC on November 6, 2020).
10.29	First Amendment to the Research and License Agreement, dated November 22, 2019, by and between the Company and Amgen Inc.
10.30	Amendment to the Cross-License Agreement, dated January 2, 2020, by and between the Company and MedImmune, LLC.
10.31	Second Amendment to the License Agreement, dated January 8, 2020, by and between the Company and MorphoSys AG.

10.32	Third Amendment to the License Agreement, dated July 13, 2020, by and between the Company and MorphoSys AG.
10.33	Fifth Amendment to Lease, dated October 31, 2020, by and between the Company and 111 Lemon Investors LLC.
10.34	Collaboration and License Agreement, dated December 4, 2020, by and between the Company and Janssen Biotech, Inc.
23.1	Consent of Independent Registered Public Accounting Firm (RSM US LLP).
31.1	Certification of the Principal Executive Officer pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934.
31.2	Certification of the Principal Financial Officer pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934.
32.1**	Certification of the Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2**	Certification of the Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document – The instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the inline XBRL document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Extension Schema Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.
104	104 Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

† We have received confidential treatment for certain portions of this agreement, which have been omitted and filed separately with the SEC pursuant to Rule 406 under the Securities Act of 1933, as amended.

* Indicates management contract or compensatory plan.

** These certifications are being furnished solely to accompany this annual report pursuant to 18 U.S.C. Section 1350, and are not being filed for purposes of Section 18 of the Securities Exchange Act of 1934 and are not to be incorporated by reference into any filing of the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

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 Company has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Xencor, Inc.

Date: February 23, 2021

By: /s/ BASSIL I. DAHIYAT, PH.D.
Bassil I. Dahiyat, Ph.D.
President & Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Bassil I. Dahiyat, Ph.D. and John J. Kuch, and each of them, his true and lawful attorneys-in-fact, each with full power of substitution, for him in any and all capacities, to sign any amendments to this Annual Report on Form 10-K and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact or their substitute or substitutes may do or cause to be done by virtue hereof.

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 Company and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ BASSIL I. DAHIYAT, PH.D. Bassil I. Dahiyat, Ph.D.	Director, President & Chief Executive Officer (Principal Executive Officer)	February 23, 2021
/s/ JOHN J. KUCH John J. Kuch	Sr. Vice President & Chief Financial Officer (Principal Financial and Accounting Officer)	February 23, 2021
/s/ A. BRUCE MONTGOMERY, M.D. A. Bruce Montgomery, M.D.	Director	February 23, 2021
/s/ KURT GUSTAFSON Kurt Gustafson	Director	February 23, 2021
/s/ YUJIRO S. HATA Yujiro S. Hata	Director	February 23, 2021
/s/ KEVIN C. GORMAN, PH.D. Kevin C. Gorman, Ph.D.	Director	February 23, 2021
/s/ RICHARD RANIERI Richard Ranieri	Director	February 23, 2021
/s/ ELLEN G. FEIGAL, M.D. Ellen G. Feigal, M.D.	Director	February 23, 2021
/s/ DAGMAR ROSA-BJORKESON Dagmar Rosa-Bjorkeson	Director	February 23, 2021

[***] = CERTAIN IDENTIFIED INFORMATION HAS BEEN OMITTED FROM THIS DOCUMENT BECAUSE IT IS BOTH NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED AND HAS BEEN MARKED WITH "[***]" TO INDICATE WHERE OMISSIONS HAVE BEEN MADE.

Exhibit 10.29

AMENDMENT No. 1
to the Research and License Agreement
between Xencor, Inc. and Amgen Inc.

This Amendment No. 1 ("Amendment") is entered into as of November 22, 2019 ("Amendment No. 1 Effective Date") by and between Xencor, Inc., a corporation organized under the laws of the State of Delaware ("Xencor"), having an address of 111 West Lemon Avenue, Monrovia, California 91016 and Amgen Inc., a Delaware corporation having its principal place of business at One Amgen Center Drive, Thousand Oaks, California 91320- 1799, USA ("Amgen"). Xencor and Amgen are each referred to individually as a "Party" and together as the "Parties".

WHEREAS, Xencor and Amgen are parties to a Research and License Agreement dated as of September 15, 2015 (the "Agreement");

WHEREAS, the Parties mutually desire to amend, modify and restate certain terms and conditions of the Agreement regarding the payment of a certain milestone payment;

NOW THEREFORE, in consideration of the mutual promises contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and intending to be legally bound, the Parties hereto agree as follows:

1. DEFINITIONS

Unless otherwise defined herein, capitalized words in this Amendment shall have the meaning attributed to them in the Agreement.

The following defined term is added to the Agreement:

[***]

2. AMENDMENT

The Parties agree that, as of the Amendment No. 1 Effective Date, the Agreement is amended as set forth in this Section 2.

Section 7.2 (a)(ii) of the Agreement is deleted in its entirety and replaced with the following:

"(ii) with respect to the first occurrence of the corresponding Milestone for a Product containing or comprising a Discovery Program Compound:

Milestone	Milestone Payment
1. Development Milestones	
(a) [***]	$ [***]
(b) [***]	$ [***]
(c) [***]	$ [***]
(d) [***]	$ [***]
(e) [***]	$ [***]
(f) [***]	$ [***]
(g) [***]	$ [***]
2. Sales Milestones	
(a) [***]	$ [***]
(b) [***]	$ [***]
3. Total Milestone Payments for each Discovery Program	$ 260,500,000

3. INTEGRATION

Except for the section of the Agreement specifically amended hereunder, all terms and conditions of the Agreement remain and shall remain in full force and effect. This Amendment shall hereafter be incorporated into and deemed part of the Agreement and any future reference to the Agreement shall include the terms and conditions of this Amendment.

4. APPLICABLE LAW & JURISDICTION

This Amendment shall be governed by, and construed in accordance with, the laws which govern the Agreement, and the Parties submit to the jurisdiction and dispute resolution provisions as set forth in the Agreement.

5. COUNTERPARTS

This Amendment may be executed in counterparts with the same effect as if both Parties had signed the same document. All such counterparts shall be deemed an original, shall be construed together and shall constitute one and the same instrument. Signature pages of this Amendment may be exchanged by facsimile or other electronic means without affecting the validity thereof.

[Remainder of Page Intentionally Left Blank - Signature Page to Follow]

IN WITNESS WH ERE OF, the Par tie s intend i ng to be bound have caused this Amendment to be executed by their duly authorized representatives.

AMGEN INC.

By: _____
Name: Raymond Deshaies
Title: SVP, Global Research

Legal Dept NRG

XENCOR, INC.

By: _____
Name: Bassil Dahiyat
Title: President and CEO

[***] = CERTAIN IDENTIFIED INFORMATION HAS BEEN OMITTED FROM THIS DOCUMENT BECAUSE IT IS BOTH NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED AND HAS BEEN MARKED WITH "[***]" TO INDICATE WHERE OMISSIONS HAVE BEEN MADE.

Exhibit 10.30

AMENDMENT TO THE CROSS-LICENSE AGREEMENT
BY AND BETWEEN
MEDIMMUNE, LLC AND XENCOR, INC.

This amendment ("Amendment") to the license agreement effected December 19, 2012 (the "Agreement") by and between MedImmune, LLC, a limited liability company organized under the laws of Delaware, having a principal place of business at One MedImmune Way, Gaithersburg MD 20878 ("MedImmune") and Xencor, Inc., a Delaware corporation with an office at 111 W. Lemon Ave., Monrovia, CA 91016 ("Xencor"), is effective as of January 2, 2020. Capitalized terms not otherwise defined herein shall have the meaning ascribed in the Agreement.

WHEREAS, MedImmune and Xencor desire to amend the Agreement in order to make the process of milestone payments more efficient; and

WHEREAS, MedImmune began doing business as AstraZeneca in February of 2019.

NOW THEREFORE, in consideration of the mutual promises and covenants herein contained, Xencor and MedImmune hereby agree to the following terms:

1. Section 2.5 (b) shall be deleted and replaced with the following:

> "providing reports pursuant to Section 5.4 of the [***] License to
>
> [***]

2. The first paragraph of Section 6.1 shall be deleted and replaced with the following:

> "Xencor shall make payments to [***] pursuant to Section 5 of the [***] License and calculated according to the terms of the [***] License as applied to all activities, achievements and sales pursuant to Xencor's sublicense hereunder of [***]'s interest in those MedImmune Patents co-owned by MedImmune. Xencor shall make payments pursuant to Section 5.1 (c) of the [***] License within thirty (30) days of each milestone event and payments pursuant to Section 5.1 (d) of the [***] License shall be due and payable by March 1 of each year during the term of the [***] License."

3. Section 6.2 shall be deleted and replaced with the following sentence:

> "All payment to [***] shall be made via the following methods unless advised differently by [***]:

[***]

4. Except as expressly and unambiguously stated herein, all other terms and conditions of the Agreement, as amended, shall remain in full force and effect.

[Signature Page Follows]

[***] = CERTAIN IDENTIFIED INFORMATION HAS BEEN OMITTED FROM THIS DOCUMENT BECAUSE IT IS BOTH NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED, AND HAS BEEN MARKED WITH "[***]" TO INDICATE WHERE OMISSIONS HAVE BEEN MADE.

In Witness Whereof, the parties have caused this Amendment to be executed by their duly authorized representatives.

Xencor, Inc.	**MedImmune, LLC**
By: /s/ Bassil Dahiyat	By: /s/ Gail Wasserman
Name: Bassil Dahiyat	Name: Gail Wasserman
Title: President & CEO	Title:
Date: 03 January 2020	Date: 13 January 2020

Acknowledged by:

[***]

By: [***]

Name: [***]

Title: [***]

Date: 04 January 2020

[***] = Certain identified information has been omitted from this document because it is both not material and would likely cause competitive harm to the registrant if publicly disclosed, and has been marked with "[***]" to indicate where omissions have been made.

Exhibit 10.31

FIRST AMENDMENT TO THE LICENSE AGREEMENT
BY AND BETWEEN
XENCOR, INC. AND MorphoSys AG

This first amendment ("**Amendment**") to the **COLLABORATION AND LICENSE AGREEMENT** dated June 27, 2010 (the "**Agreement**") by and between **XENCOR, INC.**, a Delaware corporation with its principal offices at 111 West Lemon Avenue, Monrovia, CA 91016 ("**Xencor**"), and **MORPHOSYS AG**, a German corporation with its principal offices at Semmelweisstrasse 7, 82152 Planegg, Germany ("**MorphoSys**") is effective as of the date of last signature to this Amendment. Capitalized terms not otherwise defined herein shall have the meanings ascribed in the Agreement.

WHEREAS, the Agreement, as more specifically set forth therein, affords Xencor the right to have its name and logo on all Licensed Product labeling and promotional materials; and

WHEREAS, Xencor and MorphoSys have agreed to amend the Agreement to provide for inclusion of an approved statement in any media release referencing and in any publication regarding the Licensed Product instead of including Xencor's name and logo on all Licensed Product labeling and promotional materials.

NOW THEREFORE, in consideration of the mutual promises and covenants herein contained, Xencor and MorphoSys hereby agree to the following terms:

1. Section 3.6 of the Agreement shall be deleted in its entirety and be replaced by the following paragraph:

> "3.6 **Allocation of Responsibility for Further Development and Commercialization.** Other than Xencor's responsibilities with respect to the Ongoing Phase 1 Trial, MorphoSys shall be responsible for all further development of Licensed Antibody(ies) and/or Licensed Products for, and commercialization (including marketing, promotion and sales) of Licensed Products in the MorphoSys Territory for the Field. MorphoSys (and its Affiliates and Sublicensees) shall have the right to file in its own name, and to own, all new INDs, Marketing Authorization Applications and Marketing Authorizations for Licensed Products in the MorphoSys Territory for the Field and may delegate and/or assign these rights to Affiliates and Sublicensees. As between the Parties, MorphoSys shall have the sole and exclusive right to select the product trademarks for the Licensed Products in the MorphoSys Territory for the Field (and may delegate and/or assign this right to Affiliates and Sublicensees). Regardless of whether Licensed Product is marketed by MorphoSys or a Sublicensee, Licensed Product labeling, packaging and promotional materials shall neither be required to state that the Licensed Product is under license from Xencor (or its successor), nor include the Xencor name or Xencor logo."

2. The following sentence shall be added at the end of Section 7.4 of the Agreement:

"For (i) any media release (but excluding legally required ad hoc-announcements) by MorphoSys, by any Sublicensee of the Licensed Product or by any of their respective Affiliates referencing the Licensed Product, the statement set forth in Exhibit N (attached hereto) or an alternative statement approved by both Parties in writing, shall be included in the section containing background information on the Licensed Product; and (ii) any peer-reviewed publication regarding the Licensed Product with co-authorship of an employee of MorphoSys, any Sublicensee of the Licensed Product or by any of their respective Affiliates shall include, to the extent possible, the statement set forth in Exhibit N, in e.g., the Materials and Methods section, the acknowledgements or the references at the discretion of the lead author and publisher; provided that if a publisher will not approve its inclusion, the Parties will work together to craft a disclosure regarding the license of the Licensed Product from Xencor by MorphoSys that the publisher will approve (if any)."

3. This Amendment will be construed in accordance with, and governed in all respects by, the laws of the State of New York (without giving effect to principles of conflicts of law).

4. All other terms of the Agreement shall remain unchanged and, except as expressly amended hereby, the Agreement shall continue in full force and effect. This Letter Agreement is incorporated and made a part of the Agreement. In the event of any conflict or inconsistency between the Agreement and this Letter Agreement, the latter shall prevail.

[Remainder of page intentionally left blank.]

In Witness Whereof, the parties have caused this Amendment to be executed by their duly authorized representatives.

Xencor

By: 
Name: Bassil Dahiyat, PhD
Title: President and CEO
Date: January 8, 2020

MorphoSys

By: i.V. Ahmed-Yousef Ali
Name: Ahmed-Yousef Ali, PhD
Title: Sen. Dir. Global Commercial
Date: 8.1.2020

MorphoSys

By: i.V. J. Folig
Name: Jarah Fakih
Title: VP Corp Com & IR
Date: 08.01.20

Exhibit N

Approved Statement

About tafasitamab (MOR208)

Tafasitamab (MOR208) is an investigational humanized Fc-engineered monoclonal antibody directed against CD19.[1] In 2010, MorphoSys licensed exclusive worldwide rights to develop and commercialize tafasitamab from Xencor, Inc. Tafasitamab incorporates an XmAb(R) engineered Fc domain, which is intended to lead to a significant potentiation of antibody-dependent cell-mediated cytotoxicity (ADCC) and antibody-dependent cellular phagocytosis (ADCP), thus aiming to improve a key mechanism of tumor cell killing.

… *[Note: MorphoSys may add, following this statement, at its sole discretion and without requiring Xencor's approval, further information on tafasitamab, the target, the development of tafasitamab, respective clinical trials, marketing authorizations and relevant indications etc.]*

[Add to trademark line:] XmAb(R) is a trademark of Xencor, Inc.

[1] MorphoSys may update this statement at its sole discretion e.g. depending on Licensed Product status.

Exhibit 10.32

THIRD AMENDMENT TO THE LICENSE AGREEMENT
BY AND BETWEEN
XENCOR, INC. AND MorphoSys AG

This third amendment ("**Amendment**") to the **COLLABORATION AND LICENSE AGREEMENT** dated June 27, 2010, as amended on March 23, 2012, and on January 8, 2020 (such second amendment being wrongly named "first amendment" thereunder shall be regarded and referred to as the second amendment) (collectively, the "**Agreement**"), by and between **XENCOR, INC.**, a Delaware corporation with its principal offices at 111 West Lemon Avenue, Monrovia, CA 91016, USA ("**Xencor**"), and **MORPHOSYS AG**, a German corporation with its principal offices at Semmelweisstrasse 7, 82152 Planegg, Germany ("**MorphoSys**") is effective as of the date of last signature to this Amendment. Capitalized terms not otherwise defined herein shall have the meanings ascribed in the Agreement.

WHEREAS, the Agreement, as more specifically set forth in its second amendment, provides for the inclusion of an approved statement in any media release referencing and in certain publications regarding the Licensed Product; and

WHEREAS, Xencor and MorphoSys have agreed to amend the Agreement to provide for a change of such approved statement and a potential further change.

NOW THEREFORE, in consideration of the mutual promises and covenants herein contained, Xencor and MorphoSys hereby agree to the following terms:

1. Exhibit N to the Agreement shall be deleted in its entirety and be replaced by the new **Exhibit N** attached hereto.

2. This Amendment will be construed in accordance with, and governed in all respects by, the laws of the State of New York (without giving effect to principles of conflicts of law).

3. All other terms of the Agreement shall remain unchanged and, except as expressly amended hereby, the Agreement shall continue in full force and effect. This Amendment is incorporated and made a part of the Agreement. In the event of any conflict or inconsistency between the Agreement and this Amendment, the latter shall prevail.

[Remainder of page intentionally left blank.]

IN WITNESS WHEREOF, the parties have caused this Amendment to be executed by their duly authorized representatives.

Xencor

By: 
Name: Bassil Dahiyat, PhD
Title: President and CEO
Date: July 13, 2020

MorphoSys AG

By: 
Name: i.V. Dr. Barbara Krebs-Pohl
Title: SVP, Head of Global BD&L and Alliance Management
Date: July 13, 2020

MorphoSys AG

By: 
Name: i.A. Dr. Stefan Mitterreiter
Title: Associate Director, Global BD&L and Alliance Management
Date: July 13, 2020

Exhibit N

Approved Statement

About tafasitamab (MOR208)*

Tafasitamab (MOR208) is an investigational humanized Fc-engineered monoclonal antibody directed against CD19.*
In 2010, MorphoSys licensed exclusive worldwide rights to develop and commercialize tafasitamab from Xencor, Inc. Tafasitamab incorporates an XmAb® engineered Fc domain, which mediates B-cell lysis through apoptosis and immune effector mechanism including antibody-dependent cell-mediated cytotoxicity (ADCC) and antibody-dependent cellular phagocytosis (ADCP).**

… *[Note: MorphoSys may add, following this statement, at its sole discretion and without requiring Xencor's approval, further information on tafasitamab, the target, the development of tafasitamab, respective clinical trials, marketing authorizations and relevant indications etc.]*

Add to trademark line: XmAb® is a trademark of Xencor, Inc.

* MorphoSys may update this statement at its sole discretion e.g. depending on Licensed Product status.
** MorphoSys may update this statement, without Xencor's prior approval, to mirror the final language agreed with the FDA in Section 12 of the prescribing information.

FIFTH AMENDMENT TO LEASE

This FIFTH AMENDMENT TO LEASE (this "**Amendment**") is made and effective as of October 31, 2020 (the "**Effective Date**") by and between 111 LEMON INVESTORS LLC, a California limited liability company successor-in-interest to BF Monrovia, LLC, a California limited liability company ("**Landlord**") and XENCOR, INC., a Delaware corporation successor-in-interest to Xencor, Inc., a California corporation ("**Tenant**").

RECITALS:

A. Landlord and Tenant entered into that certain Lease dated as of January 1, 2015 (the "**Original Lease**") whereby Landlord leased to Tenant and Tenant leased from Original Landlord that certain space containing approximately 24,573 rentable square feet, comprising the entirety of the second (2nd) floor (the "**2nd Floor Premises**") of that certain building located at 111 West Lemon Street, Monrovia, California 91016 (the "**Building**").

B. The Original Lease was amended by (i) that certain Amendment to Lease dated as of January 26, 2015, by and between Landlord and Tenant, (ii) the Second Amendment to Lease, dated as of July 5, 2017, wherein an additional 23,652 comprising the Third Floor was added to the 2nd Floor Premises as an Expansion Space ("3rd Floor Premises") (the 2nd Floor Premises and 3rd Floor Premises shall collectively be referred to in the Lease as the "Premises"), (iii) the Third Amendment to Lease dated as of April 30, 2020, wherein the term of the Original Lease was extended through September 30, 2020, (iv) the Fourth Amendment wherein the term was extended to October 31, 2020 (the Original Lease, as amended by the First Amendment, Second Amendment, Third Amendment and Fourth Amendment may be referred to herein collectively as the "**Lease**.")

C. The parties desire to amend the Lease to (i) extend the term of the Lease as to the 2nd Floor Premises, and to (ii) otherwise modify the Lease, all upon the terms and conditions hereinafter set forth.

AGREEMENT:

NOW, THEREFORE, in consideration of the foregoing recitals and the mutual covenants contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

1. Capitalized Terms. All capitalized terms when used herein shall have the same meanings given such terms in the Lease unless expressly superseded by the terms of this Amendment. All references in the Lease and in this Amendment to "**the Lease**" or "**this Lease**"

shall be construed to mean the Lease referenced above as amended and supplemented by this Amendment.

2. 2nd Floor Space – Extension of Term/Base Year. Pursuant to this Amendment, the Commencement Date for the 2nd Floor Premises shall be November 1, 2020 (the "**2nd Floor Commencement Date**"). The Term for the 2nd Floor Premises shall expire on the last day of the calendar month that is Sixty-Two (62) months from the 2nd Floor Premises Commencement Date (the "**2nd Floor Space Term**"), unless sooner terminated or extended as hereafter provided.

3. 2nd Floor Space Base Rent. Effective as of the 2nd Floor Premises Commencement Date, the Base Rent payable by Tenant for the 2nd Floor Premises shall be as set forth in the following schedule, but otherwise in accordance with the terms and conditions of the Lease:

Months of 2nd Floor Space Term	Annual Base Rent	Monthly Installment of Base Rent	Estimated Monthly Rental Rate Per RSF of 2nd Floor Space
11/01/20 – 10/30/21*	$663,471	$55,289.25	$2.25
11/01/21 – 10/30/22	$683,375.13	$56,947.93	$2.32
11/01/22 – 10/30/23	$703,876.38	$58,656.37	$2.39
11/01/23 – 10/30/24	$724,992.67	$60,416.06	$2.46
11/01/24 – 10/30/25*	$746,742.48	$62,228.54	$2.53
11/01/25 – 12/31/25	N/A	$64,095.40	$2.61

*The Base Rent for the 2nd Floor Space shall be completely abated for months Two (2), Three (3), and Sixty (60) of the 2nd Floor Space Term (the "**Base Rent Abatement Period**"). During the Base Rent Abatement Period, Tenant shall remain responsible for the payment of all of its other monetary obligations under the Lease. If Tenant shall be in default under the Lease during the Base Rent Abatement Period and shall fail to cure such default within the notice and cure period, if any, permitted for cure pursuant to this Lease, and this Lease shall be terminated and Tenant evicted in an unlawful detainer proceeding on account of such default then the abatement of Base Rent provided for in this paragraph shall immediately become void, the Base Rent payable by Tenant to Landlord shall immediately equal the amount set forth above without abatement, and in such event, then as part of the recovery by Landlord set forth in Section 17 of the Original Lease in connection therewith, Landlord shall be entitled to the recovery of the then unamortized amount of Base Rent that was previously abated pursuant to this paragraph; provided, however, Tenant acknowledges and agrees that nothing in this subparagraph is intended to limit any other remedies available to Landlord at law or in equity under applicable law (including, without limitation, the remedies under Civil Code Section 1951.2 and/or 1951.4 and any successor statutes or similar laws), in the event Tenant defaults under the Lease beyond any applicable notice and cure period.

4. Condition of the 2nd Floor Premises. Tenant is in possession of the 2nd Floor Premises and, except as otherwise provided in the Lease or this Amendment, shall continue to occupy the same in its current "AS IS" condition without any agreements, representations, understandings or obligations on the part of Landlord to perform or pay for any alterations, repairs or improvements other than as specifically provided in the Lease or this Amendment. Tenant further acknowledges that except as expressly provided in the Lease, neither Landlord nor any agent of Landlord has made any representation or warranty regarding the condition of the Second Floor Premises, the improvements, refurbishments, or alterations therein, or with respect to the functionality thereof or the suitability of any of the foregoing for the conduct of Tenant's business and that all representations and warranties of Landlord, if any, are as set forth in the Lease.

5. Condition of 2nd Floor Premises.

(a) Tenant acknowledges that it has been occupying the 2nd Floor Premises and, except as otherwise provided in the Lease or this Amendment, Tenant accepts the 2nd Floor Premises in its current "AS-IS" condition without any agreements, representations, understandings or obligations on the part of Landlord to perform or pay for any alterations, repairs or improvements except as provided in the Lease. Tenant further acknowledges that except as expressly provided in the Lease and this Amendment, neither Landlord nor any agent of Landlord has made any representation or warranty regarding the condition of the Second Floor Premises, the improvements, refurbishments, or alterations therein, or with respect to the functionality thereof or the suitability of any of the foregoing for the conduct of Tenant's business and that all representations and warranties of Landlord, if any, are as set forth in the Lease and this Amendment. Please be advised that the Building and the Second Floor Premises have not undergone inspection by a Certified Access Specialist (CASp). The foregoing verification is included in this Amendment solely for the purpose of complying with California Civil Code Section 1938 and shall not in any manner affect Landlord's and Tenant's respective responsibilities for compliance with construction-related accessibility standards as provided under the Lease. Tenant hereby waives any and all rights under and benefits of California Civil Code Section 1938 and acknowledges that the Premises, the Building and the Project have not undergone inspection by a CASp.

6. Option to Extend 2nd Floor Space Term. Landlord hereby grants Tenant or Permitted Transferee one option to extend the 2nd Floor Space Term (the "**Option to Extend**") for one (1) additional period of five (5) years (the "**2nd Floor Space Option Term**"), in accordance with the terms of this Amendment and the Lease, except that (a) the option contained in this Section 6 shall be exercised by Tenant, if at all, by Tenant providing written notice to Landlord not more than three hundred sixty (360) days and not less than two hundred and seventy (270) days prior to the expiration of the 2nd Floor Space Term and (b) the monthly Base Rent payable by Tenant for the 2nd Floor Premises during the Option Term (the "**Option Rent**") shall be the "Fair Market Rental Value" for the 2nd Floor Premises but not less than 103% of the annual Base Rent payable by Tenant for the 2nd Floor Premises during the last year of the 2nd Floor Space Term. Upon the proper exercise of the Option to Extend, the 2nd Floor Space Term shall be extended for the 2nd Floor Space Option Term. All other terms and conditions of the Lease, shall apply to the Second Floor Premises throughout the 2nd Floor Space Option Term.

7. Security Deposit. Landlord currently holds Tenant's Security Deposit, pursuant to Section 9 of the Original Lease and Section 13 of the Second Amendment, in the amount of One Hundred Thousand Eight Hundred Fifty-One and 80/100 Dollars ($100,851.80). In addition, the Lease is hereby amended such that Landlord's rights with respect to use of the Security Deposit shall only apply in the case of an occurrence (and for the duration) of a Tenant Event of Default, or at the end of the Lease term, if (and to the extent) Tenant does not perform, after written notice from Landlord, its then effective obligations for repair and restoration of the Premises.

8. Clarification of the Lease

Notwithstanding any provision of the Lease or this Amendment to the contrary, the provisions of the Lease are hereby clarified, amended and modified as follows:

Tenant acknowledges that it currently is leasing One Hundred Percent (100%) of the rentable square footage in the Building, comprising approximately 48,225 rentable square feet, i.e., the entirety of the 2nd Floor and the entirety of the 3rd Floor. Tenant agrees that as long as it is leasing the entire Building, Tenant shall be responsible for 100% of its Proportionate Share of Operating Expenses each year in excess of Base Year Operating Expenses for each applicable portion of the Premises. Commencing on the 2nd Floor Commencement Date, the Base Year for Operating Expenses for the 2nd Floor Premises shall be adjusted to be the 2020 calendar year.

From and after the 2nd Floor Commencement Date, as long as Tenant is leasing the entire Building, under the Lease, but subject to Section 9(a) below, Tenant shall be solely responsible at Tenant's sole cost and expense for the repair and maintenance (but not replacement and in the case of the elevators, replacement or capital repair) as set forth below of the following:

(a) The two (2) existing HVAC units servicing the Building, the HVAC package units servicing the Premises, and the two (2) existing boilers servicing the Building;

(b) The gate serving the parking garage for the Building;

(c) Trash removal, landscaping, sweeping and maintenance of the Common Areas, and

(d) The elevators serving the Building (the areas and items described in the foregoing subparagraphs (a), (b), (c) and (d) are referred to herein as "**Special Areas and Items**").

9. Additional Clarifications of the Lease

The following provisions of the Lease are hereby further clarified, amended and modified as follows:

(a) Paragraph 10 of the Second Amendment, which modified the definition of the "Building Systems" in Section 12.1.1 of the Original Lease, shall be deleted in its entirety, and the definition of the "Building Systems" set forth in Section 12.1.1 of the Original Lease is hereby amended to exclude "elevators"; provided however, that notwithstanding the foregoing or any other provision of this Lease (as amended) to the contrary, subject to Section 9(i) below, Landlord

shall be solely responsible for, and shall bear the cost of, any capital item or replacement or capital work required by the Lease.

(b) Section 4.4: Holding Over. During any holding over by Tenant in a portion of the Premises (the Second Floor Premises or Third Floor Premises as applicable) following the expiration of the Lease Term as to such portion of the Premises up to a maximum of 120-days Tenant shall be a month to month tenant only ("**120-Day Holdover Period**") as to such portion of the Premises, subject to the below additional terms and conditions. Any such holdover rent as to such portion of the Premises for such maximum time period shall be prorated on a daily basis based on the number of days of actual holdover as to such portion of the Premises. During such holdover, Base Rent shall be as specified in Section 4.4 of the Original Lease. Notwithstanding any other provision of the Lease to the contrary, in the event that Landlord obtains a fully executed Letter of Intent ("LOI") with a replacement Tenant for occupancy of any portion of such portion of the Premises calling for delivery of possession of such portion of the Premises to such replacement tenant following expiration of the Lease term as to such portion of the Premises, and in the further event that Tenant holds over as to such portion of the Premises after the expiration of the Lease term as to such portion of the Premises, then Landlord may provide notice to the Tenant of the signed LOI, and Tenant shall vacate the as to such portion of the Premises within 30-days of the notice.

(c) (Omitted).

(d) Section 7.4: Landlord's Records. As to Section 7.4, the reference to "ninety (90) days" shall be replaced by "one hundred eighty (180) days", the phrase "two (2) business days" shall be revised to be "five (5) business days", and the references to "ten percent (10%)" shall be replaced by "five percent (5%)".

(e) Section 10.1: Permitted Use. The language of the last sentence of Section 10 reading "all Hazardous Substances" shall be revised to read "all such Hazardous Substances."

(f) Section 10.3: Compliance with Laws. Notwithstanding any provision of this Amendment or the Lease to the contrary, Section 10.3 of the Lease shall continue to apply as written, and shall prevail over any other provision in the event of conflict.

(g) Section 11: As-Is. The provisions of Section 11 and Sections of this Amendment shall not affect or limit Landlord's specific obligations (including without limitation, obligations for repair, rebuilding and compliance with law) as to the Premises under the Lease, and the waiver of Claims set forth in Section 11 shall only apply to Tenant's known Claims as of the date of this Amendment.

(h) Section 12.1.1: The provision in the last sentence of Section 12.1.1 shall only apply to damage or conditions caused by Tenant, its employees, contractors, representatives, or their negligence or misconduct or that of any Tenant Permitted User (and then only to the extent such damage or conditions is not subject to Sections 13.5 or Section 14), and Landlord represents that it has no knowledge as of the date of execution of this Amendment of any such damage or conditions (or any condition which requires repair or correction by Tenant under Section 12.2.1).

(i) Sections 12.1.2 and 12.2.2: As to the two (2) existing HVAC units servicing the Building, the HVAC package units servicing the Premises, and the boilers servicing the Building, Tenant shall be obligated to maintain and repair the same, subject to reasonable wear and tear, but in the case where any such unit or boiler needs replacement, Landlord shall bear the entire cost of such replacement, other than the portion of the amortized cost thereof to be borne by Tenant as provided in Paragraph 6) of Exhibit E to the Lease, and within 30 days of execution of this Amendment, Tenant shall provide Landlord with Tenant's signed contract for HVAC servicing of the foregoing HVAC units serving the Premises and the Building. For purposes of this Lease, in the case of the capital repair of the elevators, any capital repair the aggregate cost of which exceeds $6,000 shall be considered a replacement and the cost thereof shall be borne by Landlord, which replacement cost shall be amortized and borne by Tenant as provided in Paragraph 6 of Exhibit E to the Lease.

(j) (Intentionally Omitted)

(k) Section 12.4: Alterations; Tenant Removal of Alterations. Tenant shall not have the obligation to remove Alterations made prior to the Effective Date of this Amendment, and no future Alteration shall be required to be so removed unless such Alteration would make the Premises materially less marketable to new tenants in comparison to conditions in effect prior to such Alteration, as determined in Landlord's good faith discretion.

(l) (Intentionally omitted)

(m) Section 14: Damage or Destruction.

i) If the Lease is not terminated by Landlord or Tenant pursuant to Section 14, (i) Tenant shall restore, and shall be solely responsible for any deficiency (or shortfall) in insurance proceeds allocable to restoration of, the tenant improvements in the Premises and the personal property of Tenant (provided that Tenant may make reasonable modifications to the scope and nature of such repairs and restoration of Tenant improvements in the Premises) without regard to any fault or negligence of Landlord, and (ii) if, following any casualty, Landlord shall fail to promptly restore fully the remaining improvements on the Property (i.e., those improvements which are not Tenant improvements), (without regard to any fault or negligence of Tenant or any Tenant Permitted User) without cost to Tenant; Tenant may, by delivery of written notice to Landlord terminate this Lease without liability, effective on the date specified in its notice.

ii) In the event of any damage to the Premises or Property by a casualty event which renders all or any portion of the Premises uninhabitable (and this Lease is not terminated by Landlord or Tenant), and Tenant does not so occupy such portion of the Premises, all rent payable under the Lease allocable to such portion of the Premises shall be abated from the date such portion is not so occupied for a period of time reasonably sufficient (under the circumstances) to allow Tenant to restore the tenant improvements in the Premises to a habitable condition and reoccupy the Premises for the conduct of business.

(n) (Intentionally Omitted)

(o) Section 16: Tenant Permitted Transferees and Permitted Transfers.

i) As to Section 16.1.2, the same shall not apply to any Permitted Transfer and after the phrase "Tenant Permitted User," add the phrase "or Permitted Transferee (defined below)."

ii) As to Section 16.1.2(a), any such merger described therein shall be subject to Section 16.5 of the Lease so long as such transaction is a good faith transaction; in addition, the phrase "or in which Tenant survives as a subsidiary of another person" shall be deleted.

iii) As to Section 16.1.2, clauses (b) and (c) shall not apply if the stock of Tenant is listed on any securities exchange or is otherwise publicly held.

iv) As to Section 16 generally, no sublessee in any sublease Transfer shall be required to assume or be liable for the obligations of Tenant under the Lease.

v) As to Section 16.5(a), clause (i) shall be revised to read in its entirety "no later than ten (10) days after the closing of such Permitted Transfer, Tenant notifies Landlord of such Permitted Transfer and delivers to Landlord reasonable evidence that the transaction in question complies with the requirements of this Section 16.5 and (b) clause (iii) shall be revised to read in its entirety, "Such Permitted Transferee shall have a tangible net worth sufficient to demonstrate that it is financially capable to fully service its financial obligations (including but not limited to its obligations under the Lease) as the same become due."

(p) Section 17.1: Defaults.

i) Section 17.1.1 shall be revised to read: "The failure of Tenant to cure in full any delinquent payment of Base Rent or Additional Rent within five (5) days of receipt of written notice from Landlord that such amount is delinquent."

ii) Section 17.1.7 shall be deleted.

(q) Section 17.4 Late Charges. The reference in Section 17.4 to "ten percent (10%)" shall be revised to read "five percent (5%)", and no late charge shall be payable unless Landlord shall provide written notice of the delinquent payment in question and Tenant shall fail to cure such delinquent rent within three (3) business days of receipt of such notice; in addition, the last sentence of Section 17.4 shall be deleted.

(r) Section 18: Indemnification.

i) The provisions of Section 18.1 commencing with clause (b) and continuing for the remainder of Section 18.1 shall be deleted and replaced with the following: "and (b) subject to the provisions of Sections 12.1 and 14, any accident, injury or damage which happens at, in or upon the Premises during the Term; (c) any activity, work or thing done, permitted or suffered by Tenant or any Tenant Permitted Used on, in or about the Premises, (d) any failure by Tenant to comply with any Laws, including, without limitation, any Laws related to ADA or other Laws relating to accessibility to the Premises; any other act, omission, and (f) the negligence or willful misconduct of Tenant or any member, manager, partner, officer, director, employee or contractor of Tenant, or any Tenant Permitted User (collectively, "*Tenant Parties*") relating to the

Premises or Tenant's operations therein, except to the extent any of the foregoing arises as a result of the gross negligence or willful misconduct or failure to comply with Landlord's obligations under this Lease of Landlord or any member, manager, partner, officer, director, employee or contractor of Landlord (collectively, "*Landlord Parties*")."

ii) (Intentionally Omitted)

(s) Section 20.1 No Landlord Liability. Section 20.1 (c) shall not apply in the event and to the extent of the gross negligence or willful misconduct of Landlord or any Landlord Party, and Section 20.1(d) shall not apply to the extent such injury or damages are caused by the intentional misconduct of Landlord or any Landlord Party.

(t) Section 21: Subordination. Landlord shall use reasonable efforts to cause the current Mortgagee, JP Morgan Chase Bank N.A. ("**Chase**") to execute, acknowledge and deliver to Tenant within 90 days of the date of full execution of this Amendment a Subordination Nondisturbance and Attornment Agreement in the form of Exhibit A attached hereto (the "**SNDA**") in favor of Tenant provided that if Landlord shall not deliver to Tenant such SNDA fully executed by Chase and Landlord within such 90 day period, and Landlord shall continue to fail to do so for an additional 30 days after Tenant delivers a notice of such failure to Landlord, Tenant may at any time within thirty (30) days thereafter elect to terminate this Lease and its obligations hereunder (without further liability).

(u) Section 27: Surrender of Premises. The phrase "subject to all Alterations" shall be added immediately following the language in Section 27 reading "in the same condition as received," and the phrase "in good operating condition" shall be revised to read "in good operating condition, reasonable wear and tear excepted." The proviso contained in the first sentence of Section 27 shall be deleted, and the right of Landlord to require the removal of Alterations shall be subject to Section 7(i) of this Amendment.

(v) Section 28.3: Notices. In Section 28.3, the phrase "by United States registered or certified mail" shall be deleted.

(w) Section 28.4: Waivers. In any case under the Lease where an action, omission or right of a party hereto is subject to the consent of the other party hereto, and no standard is provided in the Lease for the giving or withholding of such consent, such consent shall not be unreasonably withheld, conditioned or delayed.

(x) Section 32.1: Affiliate. In Section 32.1, all references to "fifty-one percent (51%)" shall be replaced with the phrase "thirty percent (30%)" (provided that in determining an Affiliate Sublease, it shall be "twenty percent (20%)").

(y) Exhibit E: Operating Costs for any Expense Year shall not include insurance deductibles or shortfalls aggregating more than $25,000 for such year.

(z) If Tenant no longer leases 100% of the Building, (i) "Tenant's Proportionate Share" shall equal the percentage corresponding to the fraction, the numerator of which is the rentable area of the Premises and the denominator of which is the rentable area of the Building, (ii) Tenant shall be entitled to exclusive use of Tenant's Proportionate Share of all parking spaces

contained on the Property, and (iii) Tenant shall pay for all electricity provided to the Premises and Tenant's Proportionate Share of all electricity provided to the Common Areas (but not for more than the foregoing).

10. No Brokers. Landlord and Tenant hereby warrant to each other that they shall have no obligation to provide a commission to any real estate broker or agent in connection with the negotiation of this Amendment. Each party agrees to indemnify and defend the other party against and hold the other party harmless from any and all claims, demands, losses, liabilities, lawsuits, judgments, and costs and expenses (including, without limitation, reasonable attorneys' fees) with respect to any leasing commission or equivalent compensation alleged to be owing on account of any dealings with any real estate broker or agent occurring by, through our under the indemnifying party.

11. Authorization. Landlord and Tenant represent and warrant to each other respectively that they have the requisite power and authority to enter into this Amendment; that all necessary and appropriate approvals, authorizations and other steps have been taken to effect the legality of this Amendment; that the signatories executing this Amendment on behalf of Landlord and Tenant have been duly authorized and empowered to execute this Amendment on behalf of Landlord and Tenant, respectively; and that this Amendment is valid and shall be binding upon and enforceable against Landlord and Tenant and their respective successors and assigns and shall inure to the benefit of Landlord and Tenant, and their respective successors and assigns.

12. Full Force and Effect. Except as set forth herein, all of the terms, covenants, and conditions of the Lease shall remain in full force and effect and there exists as of the date hereof no default or breach by Tenant of (or to Landlord's knowledge the occurrence of an event which, with the passage of time or the giving of notice or either of them would constitute a default or breach by Tenant of) any of the terms or conditions of, or obligations of Tenant under the Lease. If a conflict or inconsistency exists between the terms and provisions of this Amendment and the terms and provisions of the Lease, the terms and provisions of this Amendment shall control to the extent of any such conflict or inconsistency.

13. Submission. Submission of this Amendment by Landlord to Tenant for examination and/or execution shall not in any manner bind Landlord and no obligations on Landlord shall arise under this Amendment unless and until this Amendment is fully signed and delivered by Landlord and Tenant; provided, however, the execution and delivery by Tenant of this Amendment to Landlord shall constitute an irrevocable offer by Tenant of the terms and conditions herein contained, which offer may not be revoked for thirty (30) days after such delivery.

14. Counterparts; Electronic Signatures. This Amendment may be executed in any number of counterparts, all of which shall be deemed an original, but such counterparts, when taken together, shall constitute one agreement. The parties hereto may deliver their signatures to this Amendment by facsimile, electronic mail, or other electronic transmission, and agree to accept such digital image of this Amendment, as executed, as a true and correct original and admissible as if such signatures were original executed versions of this Amendment. In the event a signature is transmitted electronically, the party so transmitting shall deliver original signature pages within three (3) business days thereafter.

[SIGNATURES APPEAR ON THE FOLLOWING PAGE]

IN WITNESS WHEREOF, this Fifth Amendment to Lease has been executed as of the Effective Date.

"**Landlord**"

111 LEMON INVESTORS LLC,
a California limited liability company

By: Robhana LV1 LLC,
a Nevada limited liability company
Its Member

By: /s/ Robert Hanasab
Robert Hanasab
Its Manager

"**Tenant**"

XENCOR, INC.,
a Delaware corporation

By: /s/ John Kuch
Printed Name: John Kuch
Its: Senior Vice President and CFO

Exhibit A

Subordination Nondisturbance and Attornment Agreement

Exhibit 10.34

COLLABORATION AND LICENSE AGREEMENT

BY AND BETWEEN

XENCOR, INC.

AND

JANSSEN BIOTECH, INC.

Dated December 4, 2020

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COLLABORATION AND LICENSE AGREEMENT

This Collaboration and License Agreement (the "**Agreement**") is made and effective as of December 4, 2020 (the "**Execution Date**") by and between Xencor, Inc., a Delaware corporation ("**Xencor**"), on the one hand, and Janssen Biotech, Inc., a Pennsylvania company ("**Janssen**"), on the other hand. Xencor and Janssen are referred to herein each individually as a "**Party**" and collectively as the "**Parties**."

INTRODUCTION

WHEREAS, Xencor is engaged in the research of pharmaceutical products and controls certain patents, know-how and other rights related to the Licensed Antibodies and Licensed Products (as defined below);

WHEREAS, Janssen has considerable knowledge and experience in developing and commercializing products in the oncology field throughout the world;

WHEREAS, the Parties believe that a collaboration arrangement between the Parties regarding the research of the Licensed Antibodies would be desirable and Xencor desires to grant to Janssen, and Janssen desires to obtain from Xencor, an exclusive, worldwide license to develop, manufacture and commercialize Licensed Antibodies and Licensed Products; and

WHEREAS, the Parties therefore desire to provide for such research collaboration and license on and subject to the terms and conditions set forth herein.

NOW, THEREFORE, for and in consideration of the mutual covenants contained herein, the Parties agree as follows:

ARTICLE 1
DEFINITIONS

1.1 "**Acquirer**" means any Third Party that is a counterparty in any Change of Control transaction and any of such Third Party's Affiliates.

1.2 "**Action**" means any claim, action, cause of action or suit (whether in contract or tort or otherwise), litigation (whether at law or in equity, whether civil or criminal), controversy, assessment, arbitration, investigation, hearing, charge, complaint, demand, notice or proceeding of, to, from, by or before any Governmental Authority.

1.3 "**Affiliate**" means, with respect to a Person, any other Person directly or indirectly controlling, controlled by, or under common control with, such first Person at any time for so long as such Person controls, is controlled by or is under common control with such first Person. For purposes of this definition, the term "control" (including the correlative meanings of the terms "controlled by" and "under common control with"), as used with respect to any Person, means (a) in the case of a Person that is a corporate entity, direct or indirect ownership of 50% or more of the stock or shares having the right to vote for the election of directors and (b) in the case of a Person that is an entity, but is not a corporate entity, the possession, directly or indirectly, of the power to direct or cause the direction of the management policies of such Person, whether through the ownership of voting securities, or by contract, or otherwise.

1.4 "**Antibody**" means [***].

1.5 "**Bispecific**" in reference to an Antibody means [***].

1.6 "**Binding Domain**" means the region of an Antibody that binds to the antigen targeted by such Antibody (or if such Antibody is multivalent, binds to one of the epitopes targeted by such Antibody) [***].

1.7 "**Business Day**" means a day on which banking institutions in New York, New York are open for business.

1.8 "**Calendar Quarter**" means a quarter based on the Johnson & Johnson Universal Calendar for that quarter (a copy of which is attached hereto as Exhibit 1.8).

1.9 "**Calendar Year**" means a year based on the Johnson & Johnson Universal Calendar for that year (a copy of which is attached hereto as Exhibit 1.8).

1.10 "**CD28 Binding Domain**" means a Binding Domain which binds any epitope of CD28.

1.11 "**Change of Control**" means, at any time on or after the date of this Agreement, with respect to Xencor (and any of its successors):

(a) the acquisition, directly or indirectly, by any individual, entity or group (within the meaning of Section 13(d)(3) or 14(d)(2) of the Exchange Act) (a "**Specified Person**"), of Beneficial Ownership of 50% or more of either (i) the then outstanding ordinary (or common) shares of such company (the "**Outstanding Common Stock**") or (ii) the combined voting power of the then outstanding voting securities of such company entitled to vote generally in the election of directors (the "**Outstanding Voting Securities**"); provided, however, that for purposes of this subclause (a), any acquisition of securities of such company by any Person pursuant to a transaction which complies with clauses (i) and (ii) of subclause (c) of this definition will not constitute a Change of Control of such company;

(b) individuals who, as of the date hereof, constitute the Board of Directors of such company (the "**Incumbent Board**") cease for any reason to constitute at least a majority of the Board of Directors of such company; provided, however, that any individual becoming a director subsequent to the date hereof whose election, or nomination for election by such company's shareholders, was approved by a vote of at least a majority of the directors then comprising the Incumbent Board will be considered as though such individual were a member of the Incumbent Board, but excluding, for this purpose, any such individual whose initial assumption of office occurs as a result of an actual or threatened election contest with respect to the election or removal of directors or other actual or threatened solicitation of proxies or consents by or on behalf of any Person other than the Board of Directors of such company;

(c) consummation of a merger, consolidation, or other similar extraordinary transaction, or sale or other disposition of all or substantially all of the assets (any of the foregoing, a "**Business Combination**") of such company, in each case, unless,

immediately following such Business Combination, (i) the individuals and entities who were the Beneficial Owners, respectively, of the Outstanding Common Stock and Outstanding Voting Securities immediately prior to such Business Combination beneficially own, directly or indirectly, more than 50% of, respectively, the then outstanding shares of common stock and the combined voting power of the then outstanding voting securities entitled to vote generally in the election of directors, as the case may be, of the corporation or other entity resulting from such Business Combination (including a corporation which as a result of such transaction owns the then outstanding securities of such company or all or substantially all of such company's assets either directly or through one or more subsidiaries) in substantially the same proportions as their ownership, immediately prior to such Business Combination, of the Outstanding Common Stock and Outstanding Voting Securities, as the case may be, and (ii) more than 50% of the members of the board of directors of the corporation resulting from such Business Combination were members of the Incumbent Board at the time of the execution of the initial agreement, or of the action of the Board of Directors of such company, providing for such Business Combination;

(d) approval by the shareholders of such company of a complete liquidation or dissolution of such company; or

(e) the sale or disposition to a Third Party of assets or businesses that constitute 50% or more of the total revenue or assets of a Party (determined on a consolidated basis), including such Party's assets or business related to the Licensed Antibodies and Licensed Products.

For purposes of this definition, a Person will be deemed the "**Beneficial Owner**" of, and will be deemed to "**beneficially own**", and will be deemed to have "**Beneficial Ownership**" of, any securities:

(i) which such Person or any of such Person's Affiliates is deemed to "beneficially own" within the meaning of Rule 13d-3 promulgated under the Exchange Act; or

(ii) which such Person or any of such Person's Affiliates has, directly or indirectly: (1) the right to acquire (whether such right is exercisable immediately or only after the passage of time) pursuant to any agreement, arrangement or understanding (written or oral), or upon the exercise of conversion rights, exchange rights, rights, warrants or options, or otherwise; provided, however, that a Person will not be deemed under this clause (1) to be the Beneficial Owner of, or to beneficially own, or to have Beneficial Ownership of, any securities tendered pursuant to a tender or exchange offer made by or on behalf of such Person or any of such Person's Affiliates until such tendered securities are accepted for purchase or exchange thereunder or cease to be subject to withdrawal by the tendering security holder; or (2) the right to vote or dispose of, including pursuant to any agreement, arrangement or understanding (written or oral); provided, however, that a Person will not be deemed under this clause (2) to be the Beneficial Owner of, or to beneficially own, or to have Beneficial Ownership of, any security if (x) the agreement, arrangement or understanding (written or oral)

to vote such security arises solely from a revocable proxy or consent given to such Person in response to a public proxy or consent solicitation made generally to all holders of the Outstanding Common Stock or Outstanding Voting Securities of the issuer of such security in accordance with the applicable rules and regulations under the Exchange Act and (y) the beneficial ownership of such security is not also then reportable on Schedule 13D or 13G under the Exchange Act (or any comparable or successor report); or

(iii) which are beneficially owned, directly or indirectly, by any other Person with which such Person (or any of such Person's Affiliates) has (1) any agreement, arrangement or understanding (written or oral) for the purpose of acquiring, holding, voting (except pursuant to a revocable proxy as described in the proviso to subclause (ii)(2) of this definition) or disposing of any **ordinary (or common) shares or voting securities** of the issuer of such security or (2) any agreement, arrangement or understanding (written or oral) to cooperate in obtaining, changing or influencing the control of the issuer of such security; or

(iv) which are the subject of, or the reference securities for, or that underlie, any Derivative Interest of such Person or any of such Person's Affiliates, with the number of ordinary (or common) shares or voting securities deemed Beneficially Owned being the notional or other number of ordinary (or common) shares or voting securities specified in (or determined pursuant to) the documentation evidencing the Derivative Interest as being subject to be acquired upon the exercise or settlement of the Derivative Interest or as the basis upon which the value or settlement amount of such Derivative Interest is to be calculated in whole or in part.

1.12 "**Clinical Study**" means any study in which human subjects are dosed or treated with a drug or biological product, whether approved or investigational.

1.13 "**Combination Product**" means (a) any product containing a Licensed Antibody and one or more other active compounds or active ingredients in a fixed-dose formulation, or (b) any combination of a Licensed Product sold together with another drug or biological product in a single package or container for a single price.

1.14 "**Combination Regimen**" means the administration of two or more drugs or biological products together for the treatment, diagnosis or prophylaxis of any Indication, including a Licensed Product and at least one other distinct drug or biological product that is not a Licensed Product, where such Licensed Product and other drug or biological product are packaged and sold separately.

1.15 "**Commercialization**" or "**Commercialize**" means marketing, promoting, detailing, distributing, importing, exporting, offering for sale or selling a drug or biological product, including medical affairs activities (other than Included Medical Affairs Studies), regulatory activities directed to obtaining pricing and reimbursement approvals, price calculations and related reporting to Governmental Authorities, and interacting with Regulatory Authorities with respect to the foregoing. Commercialization does not include any activities that are Development activities or Manufacturing activities.

(a) "Commercialization Approval" means, with respect to a Licensed Product and any country or regulatory jurisdiction, receipt of [***].

1.16 "**Commercially Reasonable Efforts**" means [***].

1.17 "**Committee**" means the JRC, JDC, and, if Xencor exercises the Co-Funding Option, JFC.

1.18 "**Consent**" means, with respect to a certain matter, that Xencor has provided consent to such matter as evidenced in a writing executed by Xencor.

1.19 "**Controlled**" or "**Control**" means, when used in reference to Know-How, Patents, Confidential Information or intellectual property rights, the legal authority or right (either by ownership or license (other than a license granted pursuant to this Agreement)) of a Party (or any of its Affiliates) to grant a license or sublicense of such Know-How, Patents, Confidential Information or intellectual property rights to the other Party, or to otherwise disclose such Know-How, Patents, Confidential Information or intellectual property rights to the other Party, without violating or breaching the terms of any agreement with any Third Party, or misappropriating such Know-How, Patents, Confidential Information or intellectual property rights of any Third Party, such Third Party agreement existing (a) as of the Execution Date or (b) subsequent to the Execution Date if (in the case of this clause (b)) such Party first acquired rights to such Know-How, Patents, Confidential Information or intellectual property rights pursuant to such agreement. [***].

1.20 "**Cover**", "**Covering**" and "**Covered**" means, with respect to a Patent and an invention, that, in the absence of ownership of or a license under such Patent, the practice of such invention (e.g., with respect to a Patent in the U.S., the manufacture, use, sale, offer for sale or importation of such invention) would infringe a claim of such Patent [***].

1.21 "**CPI**" means the Consumer Price Index-Urban Wage Earners and Clerical Workers, U.S. City Average, All Items, 1982-1984=100, published by the U.S. Department of Labor, Bureau of Labor Statistics (or its successor equivalent index) in the U.S.

1.22 "**Currency Hedge Rate**" means the Johnson & Johnson currency hedge rate, which is the result of the effectively performed currency hedging at Johnson & Johnson for the upcoming Calendar Year and will be set up once a Calendar Year and will remain constant throughout such Calendar Year. The Johnson & Johnson currency hedge rate is calculated as a weighted average hedge rate of the outstanding external foreign currency forward hedge contracts of Johnson & Johnson with Third Party banks.

1.23 "**Derivative**" means [***].

1.24 "**Derivative Interest**" means any derivative security (as defined under Rule 16a-1 under the Exchange Act) that increases in value as the value of some other ordinary (or common) share or voting security increases, including, but not limited to, a long convertible security, a long call option and a short put option position, in each case regardless of whether (x) such

derivative security conveys any voting rights in such other ordinary (or common) share or voting security, (y) such derivative security is required to be, or is capable of being, settled through delivery of such other ordinary (or common) share or voting security or (z) any transaction hedges the economic effect of such derivative security.

1.25 "**Development**" means:

(a) non-clinical and clinical research and drug development activities designed to generate data to support Commercialization Approval of a drug or biological product, including assay development, toxicology, pharmacology, data collection and management, statistical analysis, Clinical Studies (including Included Medical Affairs Studies) and development of companion diagnostics;

(b) test method development and stability testing, process development, process validation, process scale-up, formulation development, delivery system development, quality assurance and quality control development, technology transfer and other related activities directed to establishing Manufacturing of a drug or biological product (collectively, "**CMC Development Activities**");

(c) regulatory activities relating to Clinical Studies and CMC Development Activities, including the preparation and submission of IND/CTAs;

(d) regulatory activities in support of obtaining and maintaining Marketing Approval, including the preparation and submission of Drug Approval Applications, regulatory affairs, project management, drug safety surveillance and REMS programs as required by the FDA or other Regulatory Authorities;

(e) Early Access Programs; and

(f) pharmacovigilance activities with respect to a drug or biological product, including establishing, updating and maintaining of a global safety database.

Notwithstanding the foregoing, Development excludes any Research activities conducted under the Research Program and any Commercialization activities.

1.26 "**Diligent Efforts**" means[***].

1.27 "**DOJ**" means the United States Department of Justice.

1.28 "**Drug Approval Application**" means: (a) a Biologics License Application submitted to the FDA pursuant to Section 351(a) of the Public Health Service Act and the regulations promulgated thereunder ("**BLA**"); (b) an application for authorization to market and/or sell a biological product submitted to a Regulatory Authority in any country or jurisdiction other than the U.S., including, with respect to the European Union, a marketing authorization application filed with the EMA pursuant to the Centralized Approval Procedure or with the applicable Regulatory Authority of a country in the European Economic Area with respect to the

decentralized procedure, mutual recognition or any national approval procedure ("**MAA**"); or (c) with respect to any biological product for which a BLA or MAA has been approved by the applicable Regulatory Authority, an application to supplement or amend such BLA or MAA to expand the approved label for such biological product to include use of such biological product for an additional Indication ("**Supplemental Application**").

1.29 "**Early Access Program**" or "**EAP**" means any program to provide patients in a country with a Licensed Product before receipt of Marketing Approval and before First Commercial Sale in such country in which the use of the Licensed Product is not primarily intended to obtain information about the safety or effectiveness of such Licensed Product, including Treatment INDs / Protocols, Named Patient Programs and Compassionate Use programs. For clarity, an EAP with respect to a Licensed Product may continue to be performed following receipt of Marketing Approval of such Licensed Product and costs may continue to be incurred in accordance with the performance of such EAP after Marketing Approval.

1.30 "**Effective Date**" means the first Business Day immediately following the date on which the Parties have actual knowledge that all applicable waiting periods under the HSR Act with respect to the transactions contemplated hereunder have expired or have been terminated. Upon the request of either Party, the Parties will memorialize the Effective Date, as defined in the immediately preceding sentence, in a written document for the Parties' records.

1.31 "**European Union**" or "**EU**" means: (a) the countries of the European Economic Area, as it is constituted on the Execution Date and as it may be modified from time to time after the Execution Date; and (b) the United Kingdom.

1.32 "**EMA**" means the European Medicines Agency or any successor agency thereto.

1.33 "**Exchange Act**" means the Securities Exchange Act of 1934, as amended.

1.34 "**Exploitation**" or "**Exploit**" means to make, have made, use, have used, offer to sell, sell, have sold, import, export and otherwise practice or exploit, including to Research, Develop, Manufacture and Commercialize.

1.35 "**FDA**" means the United States Food and Drug Administration or any successor agency thereto.

1.36 "**Field**" means all diagnostic, prophylactic and therapeutic uses.

1.37 "**First Commercial Sale**" means, with respect to a Licensed Product in a country, the first commercial sale of such Licensed Product in such country. Sales for Clinical Study purposes, Early Access Programs or similar uses will not constitute a First Commercial Sale. In addition, sales of a Licensed Product by and between a Party and its Affiliates, licensees and sublicensees, or between the Parties (or their respective Affiliates, licensees or sublicensees) will not constitute a First Commercial Sale. For the avoidance of doubt sales of a Licensed Product made on a named patient basis will not constitute a First Commercial Sale for the purposes of this definition.

1.38 "**First Phase 3 Commencement Date**" means [***].

1.39 "**FTC**" means the United States Federal Trade Commission.

1.40 "**GAAP**" means generally accepted accounting principles in the United States, consistently applied. Unless otherwise defined or stated, financial terms will be calculated by the accrual method under GAAP.

1.41 "**Good Clinical Practice**" or "**GCP**" means the current standards for clinical trials for pharmaceuticals, as set forth in the applicable regulations and ICH guidance, including ICH E6, as amended from time to time, and such standards of good clinical practice as are required by the European Union and other organizations and governmental agencies in countries in which a Licensed Product is intended to be tested to the extent such standards are not less stringent than United States Good Clinical Practice.

1.42 "**Good Laboratory Practice**" or "**GLP**" means the current standards for laboratory activities for pharmaceuticals, as set forth in the FDA's Good Laboratory Practice regulations at 21 C.F.R. Part 58 or the Good Laboratory Practice principles of the Organization for Economic Co-Operation and Development, as amended from time to time, and such standards of good laboratory practice as are required by the European Union and other organizations and governmental agencies in countries in which a Licensed Product is intended to be sold, to the extent such standards are not less stringent than United States Good Laboratory Practice.

1.43 "**Good Manufacturing Practice**" or "**GMP**" means the part of quality assurance which ensures that products are consistently produced and controlled in accordance with the quality standards appropriate to their intended use as defined in 21 C.F.R. Parts 210 and 211, European Directive 2003/94/EC, Eudralex 4, Annex 16, and applicable United States, European Union, Canadian and ICH Guidance and/or regulatory requirements for a product.

1.44 "**Governmental Authority**" means any national, federal, state or local government, or political subdivision thereof, or any multinational organization or authority or any authority, agency or commission entitled to exercise any administrative, executive, judicial, legislative, police, regulatory or taxing authority or power, any court or tribunal (or any department, bureau or division thereof), or any governmental arbitrator or arbitral body.

1.45 "**Government Health Care Programs**" means the Medicare program (Title XVIII of the Social Security Act), the Medicaid program (Title XIX of the Social Security Act), TRICARE, the Federal Employee Health Benefits Program, and other foreign, federal, state and local governmental health care plans and programs.

1.46 "**HSR Act**" means the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, and the rules and regulations promulgated thereunder.

1.47 "**IND/CTA**" means an Investigational New Drug Application filed with FDA or a similar application filed with an applicable Regulatory Authority outside of the United States,

such as a clinical trial application or a clinical trial notification, or any other equivalent or related regulatory submission, license or authorization.

1.48 "**Indication**" means [***].

1.49 **"Janssen Binding Domain"** means (a) any Janssen proprietary Target Prostate Antigen Binding Domain designated and provided by Janssen to Xencor for incorporation into Licensed Antibodies under the Research Program under Section 3.4.1, or (b) [***].

1.50 "**Janssen Research Intellectual Property**" means, collectively, the Janssen Research Know-How and Janssen Research Patents.

1.51 "**Janssen Research Know-How**" means all Know-How relating to a Janssen Binding Domain Controlled by Janssen or its Affiliates as of the Execution Date or at any time during the Research Program Term that is necessary for the Research of any of the Licensed Antibodies.

1.52 "**Janssen Research Patents**" means all Patents Controlled by Janssen or its Affiliates as of the Execution Date or at any time during the Research Program Term to the extent that such Patents claim the composition of matter of any Janssen Binding Domain.

1.53 "**Know-How**" means all technical, scientific and other know-how and information, trade secrets, knowledge, technology, means, methods, processes, practices, formulas, instructions, skills, techniques, procedures, ideas, technical assistance, designs, drawings, assembly procedures, computer programs, apparatuses, specifications, data, results and other material, including Manufacturing procedures, test procedures, and purification and isolation techniques in written, electronic or any other form, and all other discoveries, developments, inventions (whether or not patented or patentable), and tangible embodiments of any of the foregoing, in each case that is not generally known to the public. Know-How does not include any Patents.

1.54 "**Law**" means any federal, state, local, foreign or multinational law, statute, standard, ordinance, code, rule, regulation, resolution or promulgation, or any order by any court, regulatory agency or other Governmental Authority, or any license, franchise, permit or similar right granted under any of the foregoing, or any similar provision having the force or effect of law.

1.55 "**Licensed Antibody**" means [***].

1.56 "**Licensed Product**" means any pharmaceutical product in any form containing one or more Licensed Antibodies as an active ingredient, in any dosage form, formulation or method of delivery. For clarity, if one or more products contains, as its only active ingredient, the same Licensed Antibody, all such products will be considered the same Licensed Product (except for any products that are Combination Products).

1.57 "**Major European Countries**" means France, Germany, Italy, Spain and the United Kingdom.

1.58 "**Manufacturing**" or "**Manufacture**" means activities directed to producing, manufacturing, processing, filling, finishing, packaging, labeling, quality assurance testing and release, shipping and storage of a drug or biological product.

1.59 "**Marketing Approval**" means approval of a Drug Approval Application by the applicable Regulatory Authority.

1.60 [***].

1.61 [***].

1.62 "**MHLW**" means the Ministry of Health, Labour and Welfare in Japan.

1.63 "**Net Sales**" means the gross amounts invoiced on sales of a Licensed Product by Janssen, or any of its Affiliates or sublicensees to a Third Party purchaser in an arms-length transaction, less the following customary and commercially reasonable deductions, determined in accordance with GAAP and internal policies and actually taken, paid, accrued, allocated, or allowed based on good faith estimates:

(a) trade, cash and/or quantity discounts, allowances, and credits, excluding commissions for commercialization;

(b) excise taxes, use taxes, tariffs, sales taxes and customs duties, and/or other government charges imposed on the sale of Licensed Product (including VAT, but only to the extent that such VAT taxes are not reimbursable or refundable), specifically excluding, for clarity, any income taxes assessed against the income arising from such sale;

(c) compulsory or negotiated payments and cash rebates or other expenditures to governmental authorities (or designated beneficiaries thereof) in the context of any national or local health insurance programs or similar programs; including, but not limited to, pay-for-performance agreements, risk sharing agreements as well as government levied fees as a result of the PPACA;

(d) rebates, chargebacks, administrative fees, and discounts (or equivalent thereof) to managed health care organizations, group purchasing organizations, insurers, pharmacy benefit managers (or equivalent thereof), specialty pharmacy providers, governmental authorities, or their agencies or purchasers, reimbursers, or trade customers, as well as amounts owed to patients through co-pay assistance cards or similar forms of rebate to the extent the latter are directly related to the prescribing of the Licensed Product;

(e) outbound freight, shipment and insurance costs to the extent included in the price and separately itemized on the invoice price;

(f) retroactive price reductions, credits or allowances actually granted upon claims, rejections or returns of Licensed Product, including for recalls or damaged or expired goods, billing errors and reserves for returns;

(g) any invoiced amounts which are not collected by the selling party or its Affiliates, including bad debts; and

(h) any deductions in the context of payments that are due or collected significantly after invoice issuance.

All aforementioned deductions will only be allowable to the extent they are commercially reasonable by Janssen and will be determined, on a country-by-country basis, as incurred in the ordinary course of business in type and amount verifiable based on Janssen's and Affiliates' reporting system. All such discounts, allowances, credits, rebates, and other deductions will be fairly and equitably allocated to Licensed Product and other products of Janssen and its Affiliates and sublicensees such that Licensed Product does not bear a disproportionate portion of such deductions.

Sales of Licensed Product by and between Janssen and its Affiliates and sublicensees, in each case, unless the Affiliate, sublicensee, or Party is the end purchaser, are not sales to Third Parties and will be excluded from Net Sales calculations for all purposes; provided, however, that if such Licensed Product is subsequently resold to a Third-Party end user such resale shall be included in the determination of Net Sales.

Sales of Licensed Product for the use in conducting Clinical Studies of Licensed Product (including Included Medical Affairs Studies) in a country at or below cost, or in a 'cost-plus a percentage' scenario where the 'percentage' covers Janssen's tax considerations, and in order to obtain the regulatory approval of the Licensed Product in such country will be excluded from Net Sales calculations for all purposes.

Compassionate use and "named patient sales" will be excluded from Net Sales calculations for all purposes.

Any disposition of the Licensed Product as free samples, donations, or patient assistance will be excluded from Net Sales calculations for all purposes.

If a Licensed Product is a Combination Product, the Parties will negotiate in good faith, at the latest [***] months before the expected launch of such Combination Product, an allocation of Net Sales of such Combination Product to the respective active pharmaceutical ingredient ("**API**") components, as the case may be, based on the fair market value of such components for the purposes of determining a Licensed Product specific or licensed API specific allocated Net Sales. Payments related to such Combination Product under this Agreement, including royalty payments, will be calculated, due and payable based only on such allocated Net Sales.

Without limiting the foregoing and following negotiation, the Parties anticipate that allocated Net Sales will be calculated according to one of the following paradigms, with the calculation approach in clause (i) being more preferable:

(i) Net Sales for the determination of royalties of Combination Products will be calculated by multiplying Net Sales of such Combination Product by the fraction A/(A+B) where A is the average net selling price of the Licensed Product component contained in the Combination Product, if sold separately or subject to reasonable estimation,

and B is the sum of the average net selling prices of any other API components included in the Combination Product, if sold separately or, if not sold separately, subject to reasonable estimation.

(ii) Net Sales for the determination of royalties of Combination Products will be calculated by multiplying Net Sales of such Combination Product by the fraction A/C where A is the average net selling price of the Licensed Product component in the Combination Product, if sold separately or, if not sold separately, subject to reasonable estimation, and C is the average net selling Price of the entire Combination Product.

If the Parties do not agree on an allocation of Net Sales of such Combination Product to the respective API components or product components thereof before launch, then the calculation approach described in clause (i) above will be used. Where the foregoing refers to "subject to reasonable estimation" such estimation shall be made by the selling Party and promptly provided to the other Party. If the other Party disagrees with such estimation, it shall notify the other Party ("**Component Allocation Notice**") and the JFC shall convene to reasonably determine the proper allocation between the applicable components. If the JFC does not agree on such allocation within [***] days of the Component Allocation Notice, then **[***]**. For clarity, the selling Party may launch such Combination Product and use its reasonable estimation of the average net selling product of each component while such matter is being discussed and until it is resolved in accordance with this Section or Section 2.5.1.4.

1.64 "**Patents**" means: (a) all original (priority establishing) patent applications claiming one or more inventions filed anywhere in the world, including provisionals and nonprovisionals; and (b) any patent or patent application that claims, or is entitled to claim, direct or indirect priority to the patent applications described in clause (a), including any continuations, continuations-in-part, divisions, or substitute applications, any patents issued or granted from any such patent applications, and any reissues, reexaminations, renewals or extensions (including by virtue of any supplementary protection certificates) of any such patents, and any confirmation patents or registration patents or patents of addition based on any such patents, and all foreign counterparts or equivalents of any of the foregoing.

1.65 "**Person**" means any individual, firm, corporation, partnership, limited liability company, trust, business trust, joint venture, governmental authority, association or other entity.

1.66 "**Phase 1 Study**" means a Clinical Study of a Licensed Product as a monotherapy or in combination with one or more other products, the principal purpose of which is a preliminary determination of safety in healthy individuals or patients, as more fully defined in 21 C.F.R. § 312.21(a), or its successor regulation, or the equivalent in any foreign country.

1.67 "**Phase 2 Study**" means a Clinical Study of a Licensed Product as a monotherapy or in combination with one or more other products: (a) with the primary endpoint of evaluating its effectiveness for a particular Indication or Indications, its short term tolerance and safety, but is not intended to be pivotal to support Marketing Approval for such Licensed Product; or (b) that meets the definition in 21 C.F.R. §312.21(b) or any of its foreign equivalents.

1.68 "**Phase 3 Study**" means a Clinical Study of a Licensed Product as a monotherapy or in combination with one or more other products: (a) on a sufficient number of patients, which trial (i) is designed to establish that such Licensed Product is safe and efficacious for its intended use and (ii) is pivotal to support Marketing Approval for such Licensed Product; or (b) that meets the definition in 21 C.F.R. §312.21(c) or any of its foreign equivalents.

1.69 "**PPACA**" means the U.S. Patient Protection and Affordable Care Act.

1.70 [***].

1.71 "**Regulatory Authority**" means any federal, national, multinational, state, provincial or local regulatory agency, department, bureau or other governmental entity with authority over the marketing and sale of pharmaceutical products in a country, including FDA in the U.S. and EMA in the EU. Regulatory Authority also includes any non-governmental group licensed by an entity described in the preceding sentence to perform inspections, audits and/or reviews.

1.72 "**Regulatory Exclusivity**" means any exclusive marketing rights or data protection or other exclusivity rights conferred by any Regulatory Authority with respect to a drug or biological product that prevent (a) such Regulatory Authority from granting any regulatory approval of a Third Party product that has an amino acid sequence that is the same as or substantially identical to the amino acid sequence of such biological product; or (b) a Third Party from making a cross reference to data held by such Regulatory Authority, including orphan drug exclusivity, pediatric exclusivity, rights conferred in the U.S. under Section 351 of the Public Health Service Act, 42 U.S.C. §262 (such Act, the "**PHSA**"), the Drug Price Competition and Patent Term Restoration Act (21 U.S.C. §355), as amended (the "**Hatch-Waxman Act**"), the PPACA or in the European Union under Directive 2001/83/EC, as amended, and Regulation (EC) No. 1901/2006, as amended, or rights similar thereto in other countries or regulatory jurisdictions. If a Regulatory Authority confers more than one type of exclusivity with respect to a biological product in a country or jurisdiction (e.g., the FDA grants both biologic drug reference product exclusivity and orphan drug exclusivity with respect to such biological product), Regulatory Exclusivity will be deemed to apply to such biological product in such country or jurisdiction so long as any exclusivity granted to such biological product prevents such Regulatory Authority from granting any regulatory approval of a Third Party product that has an amino acid sequence that is the same as or substantially identical to the amino acid sequence of such biological product or making any cross reference to data held by such Regulatory Authority.

1.73 [***].

1.74 "**Research**" means scientific investigation and non-clinical activities to discover, identify, characterize and optimize antibodies.

1.75 "**Specified Xencor Know-How**" means [***].

1.76 "**Target Prostate Antigen**" means [***].

1.77 "**Target Prostate Antigen Binding Domain**" means a Binding Domain which binds any epitope of the Target Prostate Antigen.

1.78 "**Tax**" or "**Taxes**" means any present or future taxes, levies, imposts, duties, charges, assessments or fees of any nature (including any interest thereon).

1.79 "**Territory**" means worldwide.

1.80 "**Third Party**" means any Person other than a Party or any of its Affiliates.

1.81 "**U.S.**" means the United States of America.

1.82 "**Valid Claim**" means a claim of: (a) of any issued, unexpired patent that has not been revoked or held unenforceable or invalid by a decision of a court or governmental agency of competent jurisdiction from which no appeal can be taken, or with respect to which an appeal is not taken within the time allowed for appeal, and that has not been disclaimed or admitted to be invalid or unenforceable through reissue, disclaimer or otherwise; or (b) of any patent application that has not been cancelled, withdrawn or abandoned, without being re-filed in another application in the applicable jurisdiction or has not been pending or filed more than seven years from the earliest possible priority date for said application, provided that if such claim is later issued, it will from the issuance date forward, be deemed to be a Valid Claim, subject to clause (a) of this Section 1.83.

1.83 "**Variant**" means [***].

1.84 "**Variant Binding Domain**" means[***].

1.85 "**Xencor Binding Domain**" means (a) any Xencor proprietary CD28 Binding Domain or Target Prostate Antigen Binding Domain used by Xencor for incorporation into Licensed Antibodies, or (b) [***].

1.86 "**Xencor Intellectual Property**" means, collectively, the Xencor Research Know-How and Xencor Patents.

1.87 "**Xencor Patents**" means all Patents Controlled by Xencor or its Affiliates as of the Effective Date or at any time during the Term that are necessary to Exploit ([***]) any Licensed Antibody or Licensed Product, but excluding [***].

1.88 "**Xencor Platform Technology**" means: (a) Patents Controlled by Xencor or its Affiliates Covering or (b) Know-How Controlled by Xencor or its Affiliates that is disclosed by Xencor to Janssen and describes, in either case ((a) or (b)), [***].

1.89 "**Xencor Research Intellectual Property**" means, collectively, the Xencor Research Know-How and Xencor Research Patents.

1.90 "**Xencor Research Know-How**" means:

(a) Know-How, but not Specified Xencor Know-How, Controlled by Xencor or its Affiliates (or an invention that, at a previous time, was such Know-How and is Covered in a Patent Controlled by Xencor or its Affiliates at the time the invention was applied or incorporated) that is first incorporated by Xencor (or by Janssen with the Consent of Xencor) into a Licensed Antibody or Licensed Product prior to [***];

(b) Specified Xencor Know-How; and

(c) Know-How Controlled by Xencor or its Affiliates at any time prior to the end of the Term that is a composition of matter of a Xencor Binding Domain or Variant Binding Domain thereof,

in each case ((a), (b) and (c)), including those Inventions assigned to Xencor pursuant to Section 9.2.2.2(a) and Xencor's interest in Joint Inventions.

1.91 "**Xencor Research Patents**" means [***].

1.92 Additional Definitions. Each of the following definitions is set forth in the Section of this Agreement indicated below:

Defined Term	**Section**
1974 Convention	16.5
Acquirer Competing Product	8.4.5.1
Acquirer Intellectual Property	9.9.1
Acquiring Party	8.4.6
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Alliance Manager	2.7
Anti-Corruption Laws	11.8.1(a)
API	1.64
Applied Janssen Technology	13.6.2.1(a)
Backup	7.2.1
Bankruptcy Code	13.5.2
Beneficial Owner	1.11(e)
Beneficial Ownership	1.11(e)
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Bispecific Competing Product	8.4.1.1
BLA	1.29
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Business Combination	1.11(c)
Candidate Selection	3.7.3
Candidate Selection Date	3.7.3
CDR	1.4
Claim Basis	12.3.2

Defined Term	Section
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CMC Development Activities	1.26(b)
Co-Chair	2.4.2
Co-Detailing Agreement	6.3.3.5
Co-Detailing Data Package	6.3.1.2
Co-Detailing Data Package Delivery Date	6.3.1.3
Co-Detailing Option	6.1
Co-Detailing Option Exercise Date	6.3.2
Co-Detailing Plan	6.3.3.4
Co-Funding Option	6.1
Co-Funding Option Exercise Date	6.2.2
Co-Funding Opt-Out	6.2.4
Co-Funding Opt-Out Effective Date	6.2.4
Co-Funding Opt-Out Notice	6.2.4
Co-Funding Sales Milestone Event	7.3.2
Co-Funding Sales Milestone Payment	7.3.2
Co-Funding Wind-down Period	6.2.4(g)
Committee Matters	2.5.2
Competing Product	8.4.1.2
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Component Allocation Notice	1.64
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Contemplated Transactions	14.2.1
Cost Report	6.2.3.4(c)(iii)
Cost Variances	6.2.3.1(a)(ii)
CPR Mediation Procedure	15.3.1
CPR Rules	15.4.1
Create Act	9.3.1.7
Cure Period	13.2.1
Data Package	3.7.1
Data Package Delivery Date	3.7.1
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Detail	6.3.3.6
Detailing	6.3.3.6
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Development FTE	6.2.3.1(b)
Development FTE Costs	6.2.3.1(c)
Development FTE Rate	6.2.3.1(d)
Development Reconciliation Procedures	6.2.3.4(c)(ii)
Disclosing Party	10.1.1

Defined Term	Section
Dispute	15.1
Effective Royalty Rate	7.4.3.4(b)
Eligible Prostate Products	5.1.1
Execution Date	the Introduction
Executive Officers	2.5.1.2
Existing Xencor Intellectual Property	11.5.2
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Expert Panel	2.5.1.4(a)
First Exclusivity Period	8.4.1.4
First Licensed Product	7.2.1
Force Majeure	16.14
GDP	6.2.3.2(a)
Global Development Plan	6.2.3.2(a)
Hatch-Waxman Act	1.73
Included Medical Affairs Studies	6.2.3.2(b)(iv)
Included Medical Affairs Studies Costs	6.2.3.1(e)
Included Medical Affairs Studies Costs Limit	6.2.3.1(g)(iv)
Incumbent Board	1.11(b)
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Indemnitee	12.3.2
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Infringement Claim	9.8
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Inventions	9.2.1
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Janssen Assigned Inventions	8.1.4
Janssen Eligible Prostate Products	5.1.1
Janssen Indemnitees	12.2
[***]	[***]
[***]	[***]
JDC	2.2.1
JFC	2.3
Joint Inventions	9.2.2.3
Joint Patent Costs	9.3.3.3(a)
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Defined Term	Section
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JRD	10.6
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Outstanding Voting Securities	1.11(a)
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Patent Representative	9.1
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Permitted Study Plan and Budget	5.3.3
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Proof-of-Concept	6.2.1.1
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Proposal Delivery Date	5.2.1
Proposal Review Period	5.2.2
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Prosecution	9.3.1.2
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Reverted Derivative	13.6.2.1(d)
Reverted Product	13.6.2.1(f)
Reverted Product Derivative	13.6.2.1(g)
Reverted Variant	13.6.2.1(e)
Royalty Term	7.4.2
Royalty-Bearing Patent	7.4.2
Sales Milestone Event	7.3.1
Sales Milestone Payment	7.3.1
Scale-Up	8.4.1.5
Second Exclusivity Period	8.4.1.6
[***]	[***]
Shared Development Costs	6.2.3.1(g)
Specified Person	1.11(a)
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Subcontract	16.3
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Target Criteria	3.2.2
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Xencor	the Introduction
Xencor CD28 Inventions	11.5.2
Xencor Eligible Prostate Products	5.1.1
Xencor Indemnitees	12.1
[***]	[***]
Xencor Prostate Antigen xCD28 Patents	9.3.1.2

ARTICLE 2
GOVERNANCE

2.1 Joint Research Committee.

2.1.1 JRC Formation; Composition. The Parties will establish a joint research committee (the "**JRC**") promptly after the Effective Date. The Parties will use reasonable efforts to establish the JRC and hold the first meeting of the JRC within [***] days after the Effective Date. The JRC will be composed of at least [***] employee representatives of each Party. Each JRC member must have the appropriate capabilities and experience to carry out the responsibilities of the JRC and sufficient seniority within the applicable Party to make decisions arising within the scope of the JRC's responsibilities. Each Party may change its JRC representatives from time to time in its sole discretion, effective upon written notice to the other Party of such change. The JRC will be disbanded after the completion of the Research Program.

2.1.2 JRC Responsibilities. The JRC will: (a) serve as a forum for and facilitate communications between the Parties with respect to the activities conducted under the Research Plan; (b) prepare, discuss, and approve amendments to the Research Plan in accordance with Section 3.2; and (c) perform the other functions that are expressly delegated to the JRC in this Agreement.

2.2 Joint Development Committee.

2.2.1 JDC Formation; Composition. The Parties will establish a joint development committee (the "**JDC**") promptly after Candidate Selection. The JDC will be composed of at least [***] employee representatives of each Party. Each JDC member must have the appropriate capabilities and experience to carry out the responsibilities of the JDC and sufficient seniority within the applicable Party to make decisions arising within the scope of the JDC's responsibilities. Each Party may change its JDC representatives from time to time in its sole discretion, effective upon written notice to the other Party of such change. If Xencor exercises the Co-Funding Option in accordance with Section 6.2, the JDC will be disbanded after the completion of the GDP activities. If Xencor does not exercise the Co-Funding Option in accordance with Section 6.2, the JDC will be disbanded within [***]days after the POC Data Package Delivery Date except for purposes relating to Independent Prostate Combination Regimen Studies.

2.2.2 JDC Responsibilities.

2.2.2.1 The JDC will serve as a forum for and facilitate communications between the Parties with respect to: (a) the reports provided by Janssen under Section 4.4.2.1 prior to Xencor's exercise of the Co-Funding Option; and (b) proposed Independent Prostate Combination Regimen Studies in accordance with Section 5.2.3. Prior to Xencor's exercise of the Co-Funding Option, the JDC will have no decision-making authority except as expressly described in Section 5.2.3.

2.2.2.2 If Xencor exercises the Co-Funding Option in accordance with Section 6.2, the JDC will: (a) serve as a forum for and facilitate communications between the Parties with respect to the activities conducted under the GDP and CMC Development Activities; (b) discuss and approve amendments to the GDP in accordance with Section 6.2.3; and (c) perform the other functions that are expressly delegated to the JDC in this Agreement.

2.3 Joint Finance Committee. If Xencor exercises the Co-Funding Option in accordance with Section 6.2, the Parties will establish a joint finance committee (the "**JFC**") promptly after the Co-Funding Option Exercise Date. The JFC will: (i) coordinate and conduct the budgeting, accounting, reporting, reconciliation and other financial activities with respect to the Development Budget and Shared Development Costs to the extent provided in Section 6.2; (ii) if requested by the JDC, develop and recommend to the JDC for approval a process for the development and approval of budgets contemplated by Section 6.2; and (iii) perform the other functions with respect to the Development Budget and Shared Development Costs that are expressly delegated to the JFC in this Agreement. The JFC will be composed of employee representatives of each Party, each with reasonable expertise in the areas of accounting, cost allocation, budgeting and financial reporting and sufficient seniority within the applicable Party to make decisions arising with the scope of the JFC's responsibilities. The JFC will be disbanded after the completion of the GDP activities and reimbursement of all Shared Development Costs.

2.4 Meetings and Minutes.

2.4.1 Frequency of Meetings. Each Committee will hold meetings in accordance with a schedule established by mutual written agreement of the Parties. Each Committee will meet at least once each Calendar Quarter, unless otherwise agreed by the Committee. A Committee may meet in person or by means of teleconference, Internet conference, videoconference or other similar communications equipment, as agreed to by the Committee members. Each Party's Co-Chair may also call for special meetings to resolve particular matters requested by such Party upon [***]prior written notice to the other Party's Committee members.

2.4.2 Co-Chairs. For each Committee, each Party will designate one of its representatives to co-chair the meetings of the Committee (each, a "**Co-Chair**"). The Co-Chairs will, with the assistance of the Alliance Managers, coordinate and prepare the agenda for, and ensure the orderly conduct of, the meetings of each Committee.

2.4.3 Preparation and Attendance. The Co-Chairs will, with the assistance of the Alliance Managers, solicit agenda items from Committee members and provide an agenda, along with appropriate information for such agenda, reasonably in advance of any meeting. The agenda will include all agenda items requested by either Co-Chair. Each Party will bear its own expenses related to its Committee representatives' participation in and attendance at such meetings.

2.4.4 Meeting Minutes. Each Party, through its Co-Chair and Alliance Manager, will alternate responsibility for preparing written minutes of the meetings of each Committee and will provide the draft minutes to the Committee members for review no later than [***]after the date

of the meeting to which the minutes pertain. Draft minutes will become final and deemed to be approved if the Parties do not provide any comments to the minutes within [***]of receipt by the Committee members (or such additional period of time as mutually agreed by the Parties). If a Party provides comments to the minutes within such period (or such additional period of time as mutually agreed by the Parties), the Committee members of each Party will discuss such comments in good faith to resolve any discrepancies within five Business Days after receipt of such comments.

2.5 Decision-Making.

2.5.1 Committee Actions. Each Committee will determine, approve or resolve Committee Matters within the authority of the Committee by unanimous vote, with each Party's representatives on the Committee collectively having one vote. If the Committee representatives of the Parties do not reach consensus as to a particular Committee Matter within [***]after such matter is first presented to the Committee (or [***]), then the following provisions of this Section 2.5.1 will apply.

2.5.1.1 With respect to the JRC, neither Party will have final decision making authority with respect to Committee Matters of the JRC, and any such Committee Matter will be deemed not to have been approved by the JRC, unless and until the JRC reaches consensus, or the Parties agree, on such matter.

2.5.1.2 With respect to the JDC, either Party may refer the Committee Matter to [***]and [***] for resolution. Such Executive Officers shall endeavor to meet promptly to discuss the matter. If the Executive Officers do not reach consensus on such Committee Matter within [***]after such matter is referred to them, then Janssen will have the final decision making authority with respect to the Committee Matter, except as otherwise specified in Section 5.2.3.

2.5.1.3 With respect to the JFC, either Party may refer a Committee Matter of the JFC (other than a **[***]**) for resolution by an independent Third Party accounting firm. If either Party refers a matter for resolution by an independent Third Party accounting firm, the Parties will mutually select and engage an independent Third Party accounting firm that has no auditing or other financial relationship with either Party or any of its Affiliates to resolve the matter. If the Parties are unable to agree on the identity of the Third Party accounting firm within [***] of the date on which a Party refers such matter for resolution pursuant to this Section, the Third Party accounting firm will be one of the "big four" accounting firms that is not the external auditor of either Party. The accounting firm will, as soon as reasonably practicable after the firm is engaged and acting as expert and not an arbitrator, deliver a report to each Party with its analysis and determination of the Committee Matter. The accounting firm's determination will be final and binding on the Parties, and the amounts payable to the firm for these services will be shared equally by the Parties. If, however, the Committee Matter relates to an amount less than [***], then Janssen will have the final decision making authority with respect to such Committee Matter instead of an independent Third Party accounting firm.

2.5.1.4 With respect to the JFC, either Party may refer a Committee Matter that is a [***] for resolution by an Expert Panel according to the following procedures:

(a) Each Party will select one Third Party expert who is neutral, disinterested and impartial, and has experience relevant to the specific subject matter of the referred Committee Matter, within [***] after either Party requests resolution by an Expert Panel (each, an "**Expert**"). The Experts selected by the Parties shall jointly select a third Expert within [***]thereafter (the three Experts together, the "**Expert Panel**").

(b) Within [***] after the Expert Panel has been selected, each Party will provide to the Expert Panel and the other Party a written report setting forth its position on the referred Committee Matter. Each Party may update its own report within [***] after receiving the other Party's report. If requested by the Expert Panel, each Party will make oral submissions based on its written report and each Party will have the right to be present during any such oral submissions.

(c) Within [***] after receiving the last report or, if requested by the Expert Panel, the oral submissions, the Expert Panel will select one Party's position on the referred Committee Matter as its final decision. The Expert Panel will not have the authority to modify either Party's position or to render any substantive decision other than to select one Party's position on the referred Committee Matter as set forth in such Party's written report most recently submitted to the Expert Panel. The decision of the Expert Panel will be the Parties' sole, exclusive and binding resolution of the referred Committee Matter, and the Expert Panel's decision will become the decision of the JFC on the matter.

(d) The costs and fees of the Expert Panel will be shared equally by the Parties. Each Party will bear its own costs of participating in the proceeding.

(e) The Parties will use, and will direct the Expert Panel to use, Diligent Efforts to resolve the referred Committee Matter within [***] after either Party requests such resolution.

(f) Unless otherwise mutually agreed upon by the Parties, the in-person portion (if any) of such proceedings shall be conducted in **[***]**.

2.5.2 Limitations of Committee Authority. Each Committee will only have authority to determine, approve or resolve matters that such Committee is expressly authorized to determine, approve or resolve under this Agreement ("**Committee Matters**"). No Committee has the authority to: (a) modify or amend the terms and conditions of this Agreement; (b) waive or determine either Party's compliance with the terms and conditions of this Agreement; (c) decide any issue in a manner that would conflict with the express terms and conditions of this Agreement; (d) decide any issue for which this Agreement expressly requires a Party's approval or consent; or (e) resolve any Dispute under this Agreement.

2.6 Subcommittees. From time to time, each Committee may establish subcommittees to perform particular tasks and oversee particular projects or activities within the Committee's

authority. Each subcommittee will be constituted and will operate as the forming Committee determines, provided that no subcommittee will have any decision-making authority, but will instead make recommendations to the forming Committee with respect to matters within its authority.

2.7 Alliance Managers. Promptly after the Effective Date, each Party will appoint an individual to act as the alliance manager for such Party with respect to this Agreement (each, an "**Alliance Manager**"). The Alliance Managers will not be members of any Committee, but will be permitted to attend meetings of any Committee as nonvoting observers. The Alliance Managers will be the primary point of contact for the Parties regarding this Agreement and will facilitate communication regarding all activities under this Agreement. Each Party may change its designated Alliance Manager from time to time upon notice to the other Party.

ARTICLE 3
RESEARCH

3.1 Overview. The Parties will collaborate to conduct a program of research and development of Licensed Antibodies in accordance with the Research Plan, including antibody discovery and biology efforts through Candidate Selection (the "**Research Program**"), as further described in this ARTICLE 3. The objective of the Research Program is to Research one or more Licensed Antibodies that meet the target criteria set forth in the Research Plan. The time period beginning on the Effective Date and ending on the earlier of (a) the third anniversary of the Effective Date and (b) the date of Candidate Selection in accordance with Section 3.7 is referred to as the "**Research Program Term**."

3.2 Research Plan.

3.2.1 Initial Plan. The Parties have agreed upon a draft of a written research plan describing the Research Program (the "**Research Plan**"). The draft of the initial Research Plan is attached to this Agreement as Exhibit 3.2. The Parties will use Diligent Efforts to finalize the initial Research Plan as soon as possible after the Execution Date. The finalized initial Research Plan will be approved by the JRC in accordance with Section 3.2.3.

3.2.2 Contents. The initial Research Plan includes, and any amended Research Plan will include, the following elements: (a) descriptions of the key activities to Research Licensed Antibodies; (b) a target timeline for completing the activities; (c) Janssen's target criteria for Licensed Antibodies (the "**Target Criteria**"); and (d) certain Materials that will be provided by Xencor and Janssen.

3.2.3 Amendments. Either Party may propose amendments to the Research Plan at any time during the Research Program Term. All amendments require approval of the JRC. If the JRC approves an amendment, the amendment becomes effective upon the date of JRC approval. A written copy of the amended Research Plan will be prepared by one of the Parties, as decided by the JRC, and provided to both Parties.

3.3 Conduct of Research Program Activities. Xencor will be responsible for conducting all Research Plan activities, except Janssen will be responsible for conducting the activities assigned to Janssen under the Research Plan. Each Party will carry out the activities assigned to

it in the Research Plan in accordance with the timeline set forth in the Research Plan. Each Party will keep the other Party reasonably informed as to the progress of the conduct of such activities through meetings of the JRC. Each Party will conduct its Research Program activities in good scientific manner and in compliance with all applicable Laws, including GLP.

3.4 Binding Domains.

3.4.1 Janssen Binding Domains. Janssen will designate and provide **[***]** proprietary Target Prostate Antigen Binding Domains to Xencor for the purpose of Researching Licensed Antibodies incorporating such binding domain in the Research Program. Janssen may provide such binding domains to Xencor either by providing tangible materials containing the binding domain or by disclosing the amino acid sequence of the binding domain.

3.4.2 Xencor Binding Domains. Xencor will designate and use in the Research Program at least one of its proprietary CD28 Binding Domains and at least one of its Target Prostate Antigen Binding Domains for the purpose of Researching Licensed Antibodies incorporating such binding domains.

3.4.3 Restrictions on Use of Binding Domains.

3.4.3.1 During and after the Term, neither Janssen nor any of its Affiliates will use, nor have any right to use, any Xencor Binding Domain except to the extent Janssen is granted a license to Exploit the Licensed Antibodies and Licensed Products under this Agreement. For clarity, Xencor retains the right to use any Xencor Binding Domain in any product that is not a Licensed Antibody or Licensed Product during or after the Term.

3.4.3.2 During and after the Term, neither Xencor nor any of its Affiliates will use, nor have any right to use, any Janssen Binding Domain except to the extent Xencor is granted a license to Research the Licensed Antibodies and Exploit the Reverted Products and Reverted Product Derivatives under this Agreement. For clarity, Janssen retains the right to use any Janssen Binding Domain in any product that is not a Licensed Antibody or Licensed Product during or after the Term.

3.5 Research Program Costs. Xencor will bear all costs incurred by Xencor and its Affiliates in conducting the Research Program activities. Janssen will bear all costs incurred by Janssen and its Affiliates in conducting the Research Program activities allocated to Janssen under the Research Plan.

3.6 Records; Reports.

3.6.1 Records. Xencor will maintain, consistent with its then-current internal policies and practices, and cause its employees and subcontractors to maintain, records and laboratory notebooks of its Research activities under the Research Plan in sufficient detail and in a good scientific manner appropriate for regulatory and intellectual property protection purposes. If requested by Janssen, Xencor will provide Janssen with a copy of any such records to the extent specific to any Primary Antibody.

3.6.2 Reports and Data Packages. Xencor will provide periodic updates and reports regarding the Research Program activities and results to Janssen through the JRC, including summaries of the data and information generated and, if reasonably requested by Janssen, any raw data relating to such activities to the extent specific to any Primary Antibody. During the Research Program Term, upon request of Janssen, Xencor will provide Janssen with information about the Xencor Platform Technology used by Xencor to Research any Licensed Antibody.

3.7 Candidate Selection.

3.7.1 Promptly after completing all Research Program activities, Xencor will prepare and deliver to Janssen in writing a complete package of all reasonably relevant data and results of the Research Program activities for all Licensed Antibodies (the "**Data Package**"). If Janssen notifies Xencor within [***] following receipt that the Data Package is not complete, Xencor will provide the missing data and results as soon as possible. The date on which Janssen is in receipt of a complete Data Package is deemed to be the "**Data Package Delivery Date**."

3.7.2 Within [***] after the Data Package Delivery Date, Janssen will decide whether any of the Licensed Antibodies that are the subject of the Data Package should be further Developed. Janssen will notify Xencor of its decision within the [***]period.

3.7.3 If Janssen decides that at least one of such Licensed Antibodies should be further Developed, the notice will identify which Licensed Antibody or Licensed Antibodies will be further Developed. This decision to further Develop a Licensed Antibody is referred to as "**Candidate Selection**," and the date on which Janssen gives such notice is referred to as the "**Candidate Selection Date**."

3.7.4 If Janssen decides that none of the Licensed Antibodies that are the subject of the Data Package should be further Developed, Janssen's notice will be deemed to be a notice to terminate this Agreement without cause in accordance with Section 13.3. If Janssen does not notify Xencor of Candidate Selection within the [***] period after the Data Package Delivery Date, the provisions of Section 13.4 will apply.

3.8 Materials. In connection with the performance of activities under the Research Program, either Party may provide to the other Party for use as research tools certain proprietary biological materials or chemical compounds, such as control molecules ("**Materials**" of the supplying Party). For clarity, Materials do not include precursors for manufacture of Antibodies or excipients to be used in formulations of Antibodies. All Materials shall be used by the receiving Party solely to perform its activities under the Research Program, shall not be used or delivered by the receiving Party to or for the benefit of any Third Party without the prior written consent of the supplying Party, and shall not be used by the receiving Party in research or testing involving human subjects. Any Materials supplied under this Section 3.8 are supplied "as is" and must be used with prudence and appropriate caution in any experimental work, since not all of their characteristics may be known.

ARTICLE 4
DEVELOPMENT, MANUFACTURE AND COMMERCIALIZATION

4.1 General. Janssen will have the sole and exclusive right to Research, Develop (including conducting all regulatory matters with respect to), Manufacture, Commercialize and otherwise Exploit Licensed Antibodies and Licensed Products in the Territory at its sole cost and expense, except that Xencor will Research Licensed Antibodies during the Research Program Term in accordance with ARTICLE 3. Without limiting the foregoing:

(a) Development conducted by Janssen with respect to Licensed Antibodies generated by Xencor during the Research Program Term will include all activities following Candidate Selection, including IND-enabling activities. Janssen's authority over Development of the Licensed Antibodies will include the right to conduct Development of Combination Regimens that include the Licensed Products and other Janssen products or Third Party products in Janssen's sole discretion.

(b) Janssen will have the sole and exclusive right to hold all regulatory filings for the Licensed Products, including INDs/CTAs and Drug Approval Applications.

(c) Janssen will have sole decision-making authority over global Commercialization matters for the Licensed Products, including pricing and reimbursement.

4.2 Xencor Assistance. After Candidate Selection and until [***], Xencor will reasonably cooperate with Janssen to provide reasonable technical assistance, and to transfer to Janssen any Xencor Research Know-How licensed to Janssen under Section 8.1.1, as requested by Janssen to facilitate Janssen's Research and Development efforts related to Licensed Antibodies and Licensed Products to Janssen. Such cooperation will include providing Janssen with reasonable access by teleconference or in-person at Xencor's facilities to any Xencor personnel involved in the performance of the Research Program. [***].

4.3 Diligence.

4.3.1 Development Diligence. After the Candidate Selection Date, Janssen will use Commercially Reasonable Efforts to Develop and seek Marketing Approval for one Licensed Product for one Indication in the U.S., each of the Major European Countries and Japan.

4.3.2 Commercialization Diligence. Following receipt of Commercialization Approval of a Licensed Product in the U.S., a Major European Country or Japan, Janssen would use Commercially Reasonable Efforts to Commercialize the Licensed Product in such country.

4.4 Conduct of Activities.

4.4.1 Standards of Conduct; Records. Janssen will conduct all Development of Licensed Antibodies and Licensed Products in good scientific manner and in compliance with all applicable Law, including GMP, GLP and GCP, as applicable. Janssen will maintain, consistent with its then-current internal policies and practices, and cause its employees and subcontractors to maintain, records and laboratory notebooks of its Development activities under this Agreement in sufficient detail and in a good scientific manner appropriate for regulatory and

intellectual property protection purposes. Janssen will conduct all Commercialization activities under this Agreement in compliance with all applicable Laws.

4.4.2 Reports.

4.4.2.1 Janssen will provide Xencor with periodic reports on its Development activities with respect to the Licensed Antibodies and Licensed Products for so long as Janssen is conducting Development activities. Such reports will be provided on a [***] basis after [***]. If Xencor exercises the Co-Funding Option in accordance with Section 6.2, Janssen will continue to provide [***] reports in accordance with 6.2.3.3(d). Otherwise, Janssen will provide such reports on [***] basis within [***] after [***]. Each such report will include results of Development since the previous report and Janssen's anticipated Development activities for the subsequent four Calendar Quarters.

4.4.2.2 On an [***] basis within [***] after the completion of each Calendar Year after the First Commercial Sale of any Licensed Product, Janssen will provide Xencor a high-level summary of its Commercialization launch status and performance for Licensed Products since the previous summary and a high-level summary of Janssen's projected Commercialization activities for the subsequent Calendar Year.

ARTICLE 5
PROSTATE COMBINATION REGIMEN STUDIES

5.1 Definitions.

5.1.1 "**Eligible Prostate Products**" means: (a) with respect to Janssen, the Licensed Products and the Janssen products listed under the heading "Janssen Eligible Prostate Products" on Schedule 5.1.1 (the "**Janssen Eligible Prostate Products**"); and (b) with respect to Xencor, the Xencor products listed under the heading "Xencor Eligible Prostate Products" on Schedule 5.1.1 (the "**Xencor Eligible Prostate Products**").

5.1.2 "**Independent Prostate Combination Regimen Study**" means a Clinical Study of a Prostate Combination Regimen that meets all of the following criteria:

(a) [***].

5.1.3 "**Prostate Combination Regimen**" means a Combination Regimen that includes one Janssen Eligible Prostate Product and one Xencor Eligible Prostate Product and may include [***].

5.1.4 "**Third Party Prostate Agreement**" means, with respect to an Eligible Prostate Product, any agreement or arrangement between a Party and a Third Party relating to such Eligible Prostate Product that is in effect on the Execution Date.

5.2 Prostate Combination Regimen Study Proposals.

5.2.1 Study Proposals. If a Party desires to conduct an Independent Prostate Combination Regimen Study, such Party must first submit a detailed proposal for such study to

the other Party (with a copy to the other Party's Alliance Manager). The proposal will include a draft study protocol that includes at least the following information: [***]. The proposal will also include [***]. If the non-proposing Party notifies the proposing Party within [***] following receipt that the proposal is not complete, the proposing Party will provide the missing information as soon as possible. The date on which the non-proposing Party is in receipt of a complete proposal is deemed to be the "**Proposal Delivery Date**."

5.2.2 Review of Proposals. The other Party will consider the proposal in good faith and will notify the proposing Party in accordance with Section 16.7 within [***] after the Proposal Delivery Date (the "**Proposal Review Period**") whether it objects to the proposed study. If the non-proposing Party objects to the proposed study, such notice will state the reason for the objection. [***].

5.2.3 No Objection to Proposal. If the non-proposing Party notifies the proposing Party that it objects to the proposed study for a reason set forth in Section 5.2.2 and the proposing Party does not agree that such reason applies to the proposed study, then the proposing Party may refer the matter to the JDC for further discussion. Such matter will be a Committee Matter of the JDC, and the JDC will attempt to reach consensus on whether the reason applies or does not apply in accordance with Section 2.5.1.2. If the JDC does not reach consensus on whether the reason applies (or if the Executive Officers do not reach consensus in accordance with Section 2.5.1.2, if the matter is submitted to the Executive Officers), then [***].

5.2.4 Third Party Prostate Agreements. Notwithstanding anything to the contrary in this ARTICLE 5:

5.2.4.1 [***]

5.2.5 Retained Rights.

5.2.5.1 Nothing in this ARTICLE 5 is intended to prohibit or otherwise restrict a Party or its Affiliates from Exploiting, or entering into business relationships with one or more Third Parties to Exploit, its Eligible Prostate Products, subject to the terms and conditions of this Agreement with respect to the Licensed Antibodies and Licensed Products.

5.2.5.2 A Party or any of its Affiliates may, at any time during the Term and in its sole discretion, sell, assign, license, divest or otherwise transfer to a Third Party any of its rights or assets relating to any of its Eligible Prostate Products, subject to terms and conditions of this Agreement with respect to the Licensed Antibodies and Licensed Products. If, as a result of such transfer, such Party no longer has the right to conduct (or such Party is restricted by contract from conducting) clinical studies of the applicable Eligible Prostate Product, then such Eligible Prostate Product will be deemed to be removed from Schedule 5.1.1 and will no longer be an "Eligible Prostate Product" for purposes of this Agreement.

5.2.5.3 A Party or any of its Affiliates may, at any time during the Term and in its sole discretion, discontinue (temporarily or permanently) any of its Development, Manufacturing or Commercialization activities relating to its Eligible Prostate Products, subject to the terms and conditions of this Agreement with respect to the Licensed Antibodies and

Licensed Products. If a Party permanently discontinues all of such activities relating to one of its Eligible Prostate Products, then such Eligible Prostate Product will be deemed to be removed from Schedule 5.1.1 and will no longer be an "Eligible Prostate Product" for purposes of this Agreement.

5.3 Conduct of Permitted Prostate Combination Regimen Studies. If the non-proposing Party does not object to an Independent Prostate Combination Regimen Study for one or more of the reasons specified in Section 5.2.2 within the Proposal Review Period in accordance with Section 5.2, or does not respond to a proposal within the Proposal Review Period in accordance with Section 5.2, the proposing Party may conduct the study (a "**Permitted Prostate Combination Regimen Study**") in accordance with the terms and conditions set forth in this Section 5.3.

5.3.1 Costs. The conducting Party will be solely responsible for all costs and expenses of conducting the Permitted Prostate Combination Regimen Study, including drug supply costs.

5.3.2 Anticipated Supply Requirements. While actual supply requirements would be defined by a clinical trial supply agreement, the Parties anticipate [***].

5.3.3 Studies that include a Licensed Product. If the proposing Party is Xencor and the Permitted Prostate Combination Regimen Study includes a Licensed Product, then Xencor will provide Janssen a plan and budget for its conduct of the study (the "**Permitted Study Plan and Budget**"). Within [***] after the receipt of the Permitted Study Plan and Budget, Janssen will have the right to elect, by providing written notice to Xencor, to conduct the Permitted Prostate Combination Regimen Study itself in accordance with the Permitted Study Plan and Budget. If Janssen elects to conduct the study, Janssen will use Diligent Efforts to perform the study and Xencor will reimburse the Out-of-Pocket Expenses and Development FTE Costs incurred by Janssen in performing the study (up to the budgeted amounts), all in accordance with the Permitted Study Plan and Budget. If Janssen does not elect to conduct the study within [***] days after the receipt of the Permitted Study Plan and Budget, Xencor will have the right to conduct the study under the terms of this Section 5.3.

5.3.4 Clinical Trial Agreement. Before the commencement of the Permitted Prostate Combination Regimen Study, the Parties will enter into a clinical trial agreement with respect to the study. The clinical trial agreement will include reasonable and customary terms for agreements of its type, as well as the following terms:

5.3.4.1 [***].

ARTICLE 6
XENCOR OPTION RIGHTS

6.1 General. Janssen hereby grants to Xencor the right to elect to co-fund worldwide Development of Licensed Products in the Territory on the terms set forth in Section 6.2 (the "**Co-Funding Option**"). If Xencor exercises the Co-Funding Option in accordance with

Section 6.2, Janssen hereby grants to Xencor the right to elect to co-Detail Licensed Products in the U.S. on the terms set forth in Section 6.3 (the "**Co-Detailing Option**").

6.2 Co-Funding Option.

6.2.1 POC Data Package.

6.2.1.1 Janssen will notify Xencor promptly following the Proof-of-Concept Date for the first Licensed Product to achieve Proof-of-Concept. "**Proof-of-Concept"** means [***]. "**Proof-of-Concept Date**" means, with respect to a Licensed Product, the date on which Proof-of-Concept first occurs for such Licensed Product.

6.2.1.2 Within [***] after the date of such notice, Xencor will notify Janssen of whether it requests Janssen to prepare and deliver a data package with respect to the Licensed Products (a "**POC Data Package**"). The POC Data Package will include: [***]

6.2.1.3 If Xencor requests the POC Data Package, Janssen will provide the POC Data Package to Xencor within [***]after the request. If Xencor notifies Janssen within [***]after receipt of the POC Data Package that it is not complete, Janssen will provide any missing information, data or results as soon as practicable. The date on which Xencor is in receipt of a complete POC Data Package is referred to as the "**POC Data Package Delivery Date**."

6.2.2 Exercise of Co-Funding Option. Xencor may exercise the Co-Funding Option by providing notice to Janssen within [***]after the POC Data Package Delivery Date (the "**Co-Funding Option Exercise Date**").

6.2.3 Effect of Co-Funding Option Exercise. On and after the Co-Funding Option Exercise Date, the terms and conditions set forth in this Section 6.2.3 will apply with respect to the Development of Licensed Products worldwide:

6.2.3.1 *Definitions.*

(a) "**Manufacturing Cost of Clinical Supply**" means a Party's reasonable internal and Third Party costs incurred in manufacturing or acquisition of (and to the extent directly attributable to) Licensed Product, determined in accordance with such Party's standard cost accounting policies that are in accordance with GAAP and consistently applied across all of such Party's manufacturing network to other products that the Party manufactures. Manufacturing Cost of Clinical Supply does not include any costs of CMC Development Activities. "**Manufacturing Cost of Clinical Supply**" is comprised of Standard Cost of Goods Manufactured, Cost Variances, and Other Costs Not Included in Standard, where:

(i) "**Standard Cost of Goods Manufactured**" are budgeted unit costs established to facilitate inventory evaluation, planning and budgetary control, including direct materials, direct labor, product testing, transportation, depreciation and overhead (including Third Party costs for manufacturing or acquisition of product or materials used in such

manufacture), in each case, to the extent directly attributable to Licensed Products Manufactured by a Party under this Agreement or under a supply agreement between the Parties;

(ii) "**Cost Variances**" are actual costs of manufacturing versus Standard Cost of Goods Manufactured and include direct materials variances (including material usage variances and purchase price variances), direct labor variances and overhead variances (including but not limited to volume variances, variable overhead spending variances and fixed overhead spending variances) in each case to the extent directly attributable to Licensed Products Manufactured by a Party under this Agreement or under a supply agreement between the Parties; and

(iii) "**Other Costs Not Included in Standard**" are actual costs of manufacturing which are incurred in the normal course of business but are not included in the Standard Cost of Goods Manufactured, including, but not limited to: cash discounts on raw material purchases, transportation expenses, manufacturing trial runs, manufacturing development expenses, start-up costs, appropriation expenses, abnormal capacity or idle facility costs (to the extent such capacity or portion of a facility is reserved for Manufacturing Licensed Antibodies or Licensed Products under this Agreement or a supply agreement between the Parties), shut-down costs, material scrapped in the normal course of business (including failed commercial batches), rework, obsolete facility and machinery, impairment expenses, full absorption adjustments, inventory revaluation adjustments, lower of cost or market inventory adjustments, inventory write-downs and write-offs, physical inventory adjustments, depreciation of equipment or instruments placed at customer or other Third Party sites, new product introduction costs, technical operations, internal inventory supply management, returned goods, royalty expense, and product liability insurance, in each case to the extent directly attributable to Licensed Products Manufactured by a Party under this Agreement or under a supply agreement between the Parties. [***].

(b) "**Development FTE**" means [***] hours of work in direct support of the Development of the Licensed Products that is carried out by one or more qualified employees or contractors or consultants of a Party or its Affiliates, provided that one individual conducting more than [***] of work in any Calendar Year will not be considered more than one Development FTE and, in the case of work by an individual that is less than [***], will be pro-rated based on the actual number of hours expended by such individual. Development FTE includes scientific, medical, technical and other personnel directly engaged in performing Development activities with respect to the Licensed Products (including the project management teams that support the Licensed Products). Development FTE will not include work performed by personnel performing administrative and corporate functions (including human resources, finance, legal and investor relations).

(c) "**Development FTE Costs**" means, with respect to any period, the amount calculated by multiplying the Development FTE Rate by the number of Development FTEs expended by a Party during such period.

(d) "**Development FTE Rate**" means a rate of [***]per full-time Development FTE per Calendar Year; provided, however, that such rate will be increased or decreased annually beginning on January 1, 2022 by the percentage increase or decrease in the CPI between the last day of the most recently completed Calendar Year and December 31, 2020, or an alternative methodology that is mutually agreed to by both Parties. The Development FTE Rate is "fully burdened" and will cover employee salaries (excluding stock-based compensation), benefits, utilities, facilities, and travel expenses.

(e) "**Included Medical Affairs Studies Costs**" means, with respect to a particular Licensed Product, all Development FTE Costs and Out-of-Pocket Expenses incurred by the Parties and their Affiliates for Included Medical Affairs Studies specified in the GDP with respect to such Licensed Product.

(f) "**Out-of-Pocket Expenses**" means amounts paid by or on account of a Party to Third Party vendors or contractors for supplies and materials for use, or for services provided by them, directly in the performance of Development activities relating to the Licensed Antibodies and Licensed Products under this Agreement (or other activities for which sharing of Out-of-Pocket Expenses is otherwise specified in this Agreement). For clarity, Out-of-Pocket Expenses do not include: (a) payments for the Parties' or their Affiliates' salaries or benefits, benefits, utilities, travel expenses, general office supplies, insurance, information technology, capital expenditures (or related depreciation), or the like; or (b) amounts paid relating to activities that were not performed under this Agreement.

(g) "**Shared Development Costs**" means Development FTE Costs and Out-of-Pocket Expenses incurred by the Parties and their Affiliates in conducting Development activities with respect to Licensed Products under the GDP, including:

(i) all Development FTE Costs and Out-of-Pocket Expenses incurred for activities specified in the GDP, including for Included Medical Affairs Studies up to the Included Medical Affairs Studies Costs Limit (as defined below), and all Development FTE Costs and Out-of-Pocket Expenses incurred for CMC Development Activities, even if not specified in the GDP;

(ii) with respect to non-clinical and clinical research and drug development activities for the Licensed Products (including Clinical Studies), the Manufacturing Cost of Clinical Supply for Licensed Products and other drugs, biological products or devices used in such Clinical Studies (including Development FTE Costs and Out-of-Pocket Expenses to purchase or package Third Party drugs, biological products and devices) and Development FTE Costs and Out-of-Pocket Expenses for disposal of clinical samples;

(iii) with respect to regulatory activities for the Licensed Products, Development FTE Costs and Out-of-Pocket Expenses for fees incurred in connection with regulatory filings (including INDs/CTAs and Drug Approval Applications) and regulatory approvals and for meetings with Regulatory Authorities; and

(iv) any other Development FTE Costs and Out-of-Pocket Expenses incurred that are expressly included in the Development Budget.

Notwithstanding anything to the contrary, Shared Development Costs do not include [***] (the "**Included Medical Affairs Studies Costs Limit**").

6.2.3.2 *Global Development Plan and Budget.*

(a) General. Janssen will conduct Development of Licensed Products in accordance with the Global Development Plan. "**Global Development Plan**" or "**GDP**" means the written plan for Janssen's Development of Licensed Products in the Territory containing the information set forth in Section 6.2.3.2(b) below, as it may be amended from time to time in accordance with the terms of Section 6.2.3.2(c). The GDP will include the Development Budget, as described in Section 6.2.3.2(b)(iii) below.

(b) GDP Contents.

(i) The GDP will include all Development activities that are reasonably necessary to seek, obtain and maintain Commercialization Approval, and to support and sustain Commercialization, of the Licensed Products in the Territory.

(ii) The GDP will at all times reflect Commercially Reasonable Efforts to Develop and seek Marketing Approval for one Licensed Product for one Indication in the U.S., each of the Major European Countries and Japan.

(iii) The GDP will include a [***] budget for Shared Development Costs to be incurred by Janssen in conducting the Development activities described in the GDP that are scheduled to be commenced or conducted during the then-current Calendar Year and the succeeding Calendar Year (with respect to such Calendar Years, the "**Development Budget**"). The [***]of each Development Budget will be binding on the Parties to the extent provided in Section 6.2.3.4(d), and [***] of such Development Budget will serve as non-binding guidance for the Parties.

(iv) The GDP will also describe Included Medical Affairs Studies. "**Included Medical Affairs Studies**" means post-marketing commitments and other post-approval Clinical Studies conducted in support of obtaining Marketing Approval of a Licensed Product (e.g., IISs, cooperative group studies, or studies conducted by Janssen for an additional Indication or label expansion). Each Development Budget will include an amount for Included Medical Affairs Studies for each Calendar Year covered by such budget.

(c) Initial GDP; Updates and Amendments.

(i) The clinical development plan and budget included in the POC Data Package delivered by Janssen to Xencor under Section 6.2.1 will be the initial GDP and Development Budget for the Licensed Products. The GDP (including the Development

Budget) may be updated and amended from time to time only with the approval of the JDC (or Janssen, under Section 2.5), as described below in this Section 6.2.3.2(c).

(ii) The JDC will review the GDP annually. Janssen will prepare, and submit to the JDC for review, an updated GDP (excluding the Development Budget) on or before [***] of the then-current Calendar Year. When Janssen is preparing the updated GDP, Janssen will reasonably consider Xencor's input into the Clinical Study design and key Development activities in the GDP. Janssen will prepare, and submit to the JDC for review, an updated Development Budget covering each of [***] Calendar Years on or before [***] of the then-current Calendar Year.

(iii) The JDC will use reasonable efforts to grant preliminary approval of such updates no later than [***] of each Calendar Year.

(iv) Promptly after the JDC's preliminary approval, such updates will be submitted to each Party for its internal budgeting process.

(v) After each Party performs its internal budgeting process, the JDC will use reasonable efforts to grant final approval of such updates no later than [***] of each Calendar Year, at which time any approved updates will be set forth in writing in an amended version of the GDP.

(vi) Either Party may submit a proposed update or amendment to the GDP to the JDC from time to time. The JDC will discuss such proposal at its next meeting and decide whether to approve such update or amendment.

(d) If the JDC approves an update or amendment to the GDP (including any corresponding update or amendment to the Development Budget), the GDP (including the Development Budget) will be deemed to be amended accordingly on the date of such approval. No update or amendment to the GDP will become effective unless and until the JDC (or Janssen, under Section 2.5) approves a corresponding update or amendment to the Development Budget.

6.2.3.3 *Conduct of Development Activities.*

(a) General. Section 4.3.1 will no longer apply to any Licensed Products on and after the Co-Funding Option Exercise Date. Janssen will use Diligent Efforts to execute and to perform, or cause to be performed, the Development activities in the GDP for the Licensed Products, in accordance with the timetables in the GDP.

(b) Responsibility for Development Activities. Janssen will be solely responsible for conducting all Clinical Studies and all other Development activities in the GDP and CMC Development Activities for the Licensed Products.

(c) Safety Concerns.

(i) Notwithstanding anything to the contrary in this Agreement or the GDP, Janssen will not be obligated to commence or continue a Clinical Study of a Licensed Product if Janssen reasonably determines that such Clinical Study would pose an unacceptable safety or tolerability risk for the study subjects. Janssen will so notify Xencor of its determination and the Parties will discuss the concerns in good faith to determine whether to terminate, suspend, modify or continue such Clinical Study.

(ii) If Xencor believes in good faith that termination or suspension of a Clinical Study of the Licensed Products is warranted because of safety or tolerability risks to the study subjects, then Xencor will so notify Janssen and the Parties will discuss Xencor's concerns in good faith to determine whether to terminate, suspend, modify or continue such Clinical Study.

(d) Development Reports. Section 4.4.2.1 will cease to apply to the Licensed Products after Xencor exercises the Co-Funding Option in accordance with Section 6.2 but shall continue to apply after the Co-Funding Opt-Out Effective Date if Xencor provides Co-Funding Opt-Out Notice. In advance of each meeting of the JDC, Janssen will provide to the JDC a high-level summary report summarizing (a) its Development activities with respect to the Licensed Products that Janssen and its Affiliates has performed or caused to be performed since the last meeting of the JDC, including an evaluation of the work performed, and the results thereof, in relation to the goals of the GDP, and (b) its anticipated Development activities with respect to the Licensed Products for the subsequent Calendar Quarter.

(e) Day-to-Day Responsibility. Janssen will be responsible for day-to-day implementation of the Development activities with respect to the Licensed Products and will have the right to make operational and administrative decisions with respect to how to implement such Development activities (e.g., with respect to a Clinical Study, Janssen will have the right to select and engage clinical trial sites), as long as such decisions do not conflict with the GDP or any decision of the JDC with respect to such Development activity.

6.2.3.4 *Shared Development Costs.*

(a) Cost Sharing. Shared Development Costs incurred on or after the Co-Funding Option Exercise Date by the Parties and their Affiliates will be borne 80% by Janssen and 20% by Xencor, except as provided in Section 6.2.3.4(b).

(b) Medical Affairs Study Costs. Included Medical Affairs Studies Costs for Licensed Products will be included in Shared Development Costs up to the Included Medical Affairs Studies Costs Limit. Development FTE Costs and Out-of-Pocket Expenses costs incurred to conduct studies to support reimbursement and other types of medical affairs studies that are not Included Medical Affairs Studies will not be included in Shared Development Costs or shared by Janssen and Xencor and will be borne entirely by Janssen. Janssen shall bear all Included Medical Affairs Studies Costs in excess of the Included Medical Affairs Studies Costs Limit.

(c) Cost Reports.

(i) Shared Development Costs will initially be borne by the Party incurring the cost or expense, subject to reimbursement as provided in Section 6.2.3.4(d). Each Party will calculate and maintain records of Shared Development Costs incurred by it and its Affiliates in accordance with procedures to be established by the JFC in coordination with the JDC.

(ii) The procedures for quarterly reporting of actual results, quarterly review and discussion of potential discrepancies, quarterly reconciliation, reasonable cost forecasting, and other finance and accounting matters related to Shared Development Costs will be prepared by Janssen and approved by the JFC (the "**Development Reconciliation Procedures**"). When Janssen is preparing the Development Reconciliation Procedures, Janssen will reasonably consider Xencor's input.

(iii) The Development Reconciliation Procedures will provide that, within [***] after the end of each Calendar Quarter, each Party will submit to the JFC a report, in a format established by the JFC, of all Shared Development Costs incurred by such Party and its Affiliates during such Calendar Quarter (each, a "**Cost Report**"). Within [***] following the receipt of each Cost Report, each Party will have the right to request reasonable additional information (as determined by the JFC) related to the other Party's and its Affiliates' Shared Development Costs during such Calendar Quarter in order to confirm that such other Party's spending is in conformance with the approved Development Budget.

(iv) Janssen will prepare and the JFC will approve reasonable procedures for the Parties to share estimated Shared Development Costs for each Calendar Quarter before the end of such Calendar Quarter, to enable each Party to appropriately accrue its share of Shared Development Costs for financial reporting purposes. Janssen's representatives on the JFC will have the primary responsibility for performing the reconciliation in accordance with the Development Reconciliation Procedures.

(d) Reimbursement of Shared Development Costs.

(i) The Party (with its Affiliates) that incurs more than its share of the total actual Shared Development Costs with respect to a Calendar Quarter will be paid by the other Party an amount of cash sufficient to reconcile to its agreed percentage of actual Shared Development Costs in such Calendar Quarter under Section 6.2.3.4(a). Notwithstanding the foregoing, on a Calendar Year-to-date basis, the Parties will not share any Shared Development Costs in excess of the amounts allocated for such Calendar Year-to-date period in the Development Budget, except as follows:

(1) Shared Development Costs in excess of the Development Budget will be included in the calculation of Shared Development Costs to be shared by the Parties to the extent such excess Shared Development Costs do not exceed [***] of the total Shared Development Costs allocated to be incurred by such Party and its Affiliates in the applicable Calendar Year-to-date period in accordance with the Development Budget for such Calendar Year; and

(2) the Parties will share any and all Shared Development Costs in excess of the Development Budget to the extent attributable to: (A) a change in applicable Law; (B) Force Majeure; (C) a variation in actual patient enrollment from projected patient enrollment; (D) a change to a clinical trial protocol required or requested by any Governmental Authority; (E) increases in the costs of comparator drugs; or (F) increases to Manufacturing Cost of Clinical Supply of a Licensed Product.

(ii) If any excess Shared Development Costs are excluded from sharing by the Parties for a particular Calendar Year-to-date period pursuant to Section 6.2.3.4(d)(i)(1), such excess Shared Development Costs will be carried forward to the subsequent Calendar Quarters (provided that such Calendar Quarters fall within the same Calendar Year) and, to the extent the total Shared Development Costs incurred by such Party and its Affiliates for the Calendar Year-to-date as of the end of such subsequent Calendar Quarter are less than [***] of the aggregate Shared Development Costs allocated to such Party under the Development Budget for such Calendar Year-to-date period, such carried forward amounts will be included in Shared Development Costs to be shared by the Parties for such Calendar Year-to-date-period (i.e., so that the total Shared Development Costs incurred by such Party and its Affiliates that are shared pursuant to this Section during any Calendar Year do not exceed [***] of the Shared Development Costs allocated to such Party under the Development Budget for such Calendar Year, unless otherwise approved by the JDC). For clarity, at the end of the Calendar Year, any amounts in excess of [***] of the aggregate Shared Development Costs allocated to such Party under the Development Budget for such Calendar Year will be borne solely by such Party and will not be shared by the other Party.

(iii) The Development Reconciliation Procedures will require the JFC to develop a written report setting out the calculation of any net amount owed by Xencor to Janssen or by Janssen to Xencor, as the case may be, as necessary to accomplish the sharing of Shared Development Costs set forth in this Section, and to prepare such report promptly following delivery of the Cost Reports and in a reasonable time (to be defined in the Development Reconciliation Procedures) in advance of payment.

(iv) The net amount payable to accomplish the sharing of Shared Development Costs as provided under this Section will be paid by Janssen or Xencor, as the case may be, [***] after the end of the applicable Calendar Quarter.

6.2.4 Co-Funding Opt-Out. Xencor may elect to terminate its rights and obligations set forth in this ARTICLE 6 ("**Co-Funding Opt-Out**"), including its obligation to co-fund worldwide Development of Licensed Products in the Territory, by giving notice to Janssen (the "**Co-Funding Opt-Out Notice**") at any time after the Co-Funding Option Exercise Date. Such Co-Funding Opt-Out shall become effective on the last day of the second full Calendar Quarter after Xencor gives the Co-Funding Opt-Out Notice (the "**Co-Funding Opt-Out Effective Date**"). For example, if Xencor gives the Co-Funding Opt-Out Notice in the first Calendar Quarter of a Calendar Year, then the Co-Funding Opt-Out would be effective as of the last day of the third Calendar Quarter of such Calendar Year. After the Co-Funding Opt-Out Effective Date, the following will apply:

(a) Xencor will have no further rights or obligations under Section 6.2.3, including no obligation to pay any portion of Shared Development Costs incurred or attributable to Development activities after the Co-Funding Opt-Out Effective Date, except for reporting and reimbursement of Shared Development Costs incurred on or prior to the Co-Funding Opt-Out Effective Date.

(b) Janssen will have no further rights or obligations under Section 6.2.3 except for reporting and reimbursement of Shared Development Costs incurred on or prior to the Co-Funding Opt-Out Effective Date.

(c) The JDC and JFC will disband automatically, except as necessary to resolve matters within their authority relating to Development prior to the Co-Funding Opt-Out Effective Date.

(d) For all purposes of Sections 2.2.2, 4.4.2.1 and 11.8, Xencor will be deemed to have never exercised the Co-Funding Option.

(e) For purposes of Section 7.3, after the Co-Funding Opt-Out Effective Date all future Sales Milestone Payments will be calculated in accordance with the table in Section 7.3.1. If a Co-Funding Sales Milestone Event has previously occurred under Section 7.3.2, no Sales Milestone Payment (nor the difference between the corresponding Co-Funding Sales Milestone Payment and Sales Milestone Payment amounts) will be payable under Section 7.3.1 for the corresponding Sales Milestone Event. For example, [***].

(f) For purposes of Section 7.4, after the Co-Funding Opt-Out Effective Date royalties will be calculated and payable on the terms set forth in Section 7.4.1.1. If the Co-Funding Opt-Out Effective Date is not the last day of a Calendar Year, the royalty calculations will continue to be based on cumulative Net Sales in the Calendar Year in which the Co-Funding Opt-Out Effective Date occurred, but the royalty calculations will be made using the royalty rates in Section 7.4.1.1 beginning in the Calendar Quarter immediately following the Co-Funding Opt-Out Effective Date.

(g) The Shared Development Costs incurred [***] (the "**Co-Funding Wind-down Period**") shall continue to be shared by the Parties on the terms set forth in Section 6.2.3, provided, however, that if Janssen amends the GDP to increase the aggregate amount of the Development Budget for such Calendar Quarters, then the incremental amount of the increase approved by Janssen shall be excluded from Shared Development Costs for purposes of Section 6.2.3 during the Co-Funding Wind-down Period.

(h) If Xencor exercised the Co-Detailing Option before giving the Co-Funding Opt-Out Notice, then Xencor will be obligated to continue conducting Detailing activities in accordance with Section 6.3.3 until [***].

(i) The first two sentences of Section 4.4.2.1 will apply.

(j) Section 4.3.1 will apply.

For clarity, Xencor's exercise of the Co-Funding Opt-Out is irrevocable as of the date of the Co-Funding Opt-Out Notice. Except as provided in this Section 6.2.4, this ARTICLE 6, Section 7.3.2 and Section 7.4.1.2 will be of no further force and effect after the Co-Funding Opt-Out Effective Date.

6.3 Co-Detailing Option. If Xencor exercises the Co-Funding Option in accordance with Section 6.2, Xencor may exercise the Co-Detailing Option on the terms set forth in this Section 6.3.

6.3.1 Co-Detailing Data Package.

6.3.1.1 Janssen will notify Xencor of the expected date of the first Marketing Approval of the first Licensed Product in the U.S. (as reasonably determined by Janssen) at least [***].

6.3.1.2 Within [***] of such notice, Xencor will notify Janssen of whether it requests Janssen to prepare and deliver a data package with respect to such Licensed Product (a "**Co-Detailing Data Package**"). The Co-Detailing Data Package will include the following information relating to the Detailing in the U.S. of such Licensed Product, to the extent it is in Janssen's possession: [***].

6.3.1.3 If Xencor requests the Co-Detailing Data Package, Janssen will provide the Co-Detailing Data Package to Xencor within [***]. If Xencor notifies Janssen within [***] after receipt of the Co-Detailing Data Package that it is not complete, Janssen will provide any missing information as soon as practicable. The date on which Xencor is in receipt of a complete Co-Detailing Data Package is referred to as the "**Co-Detailing Data Package Delivery Date**."

6.3.2 Exercise of Co-Detailing Option. Xencor may exercise the Co-Detailing Option by providing notice to Janssen on or before the date that is [***] before the expected date of the first Marketing Approval of the first Licensed Product in the U.S. (as reasonably determined by Janssen and communicated to Xencor) or, if later, [***] after the Co-Detailing Data Package Delivery Date. The date of such notice is referred to as the "**Co-Detailing Option Exercise Date**." If Xencor does not exercise the Co-Detailing Option before such date, the Co-Detailing Option will not apply to any Licensed Products and the Co-Detailing Option will terminate.

6.3.3 Effect of Exercise of Co-Detailing Option. On and after the Co-Detailing Option Exercise Date, the terms and conditions set forth in this Section 6.3.3 will apply with respect to the Detailing of Licensed Products in the U.S.:

6.3.3.1 Xencor will have the right to perform up to thirty percent (30%) of the Detailing efforts for each Licensed Product in the U.S. for all approved Indications. Janssen will be responsible for performing the remainder of the Detailing efforts. Janssen will otherwise continue to have sole responsibility for and authority over all Commercialization activities in the U.S., including pricing and reimbursement matters.

6.3.3.2 Xencor will select its Detailing effort percentage and specify it in its Co-Detailing Option notice provided to Janssen under Section 6.3.1. Xencor will be required to demonstrate to Janssen its capabilities to provide the selected level of Detailing efforts, including employing an appropriate number of individuals with the appropriate qualifications (meeting the same criteria and standards that apply to Janssen's own personnel). Xencor's capabilities will be evaluated and reasonably determined by Janssen. Janssen will notify Xencor if, after its evaluation, Janssen determines that Xencor is not capable of providing the selected level of Detailing efforts and shall explain Xencor's deficiencies in reasonable detail. Xencor shall have [***] days to remedy such deficiencies. Xencor will be responsible for performing its elected percentage of Detailing efforts.

6.3.3.3 Janssen may terminate the Co-Detailing Option and Xencor's rights under this Section 6.3.3 and under the Co-Detailing Agreement in the event of the occurrence of a Change of Control of Xencor or an assignment of this Agreement in its entirety by Xencor (other than an assignment to an Affiliate of Xencor) by giving Xencor [***] notice at any time after the occurrence of such event.

6.3.3.4 After the Co-Detailing Option Exercise Date, and on an annual basis after such date, Janssen will prepare and provide to Xencor for its review and comment Janssen's written plan for the Detailing of and allocation of calls for Licensed Products in the U.S. (the "**Co-Detailing Plan**"). The Parties will discuss, and Janssen will consider in good faith Xencor's comments on, the Co-Detailing Plan before Janssen finalizes the plan. Janssen will use the Co-Detailing Plan to allocate the Parties' responsibilities for Details.

6.3.3.5 Promptly after the Co-Detailing Option Exercise Date, the Parties will negotiate in good faith to enter into a separate co-detailing agreement with respect to the co-Detailing of Licensed Products in the U.S. on commercially reasonable terms (the "**Co-Detailing Agreement**"). In addition to such usual and customary terms that are typically found within co-detailing agreements, the Co-Detailing Agreement will include the terms set forth below in this Section 6.3.3.5: [***]

6.3.3.6 "**Detail**" means an interactive face-to-face visit by a sales representative with a medical professional having prescribing authority or who is able to influence prescribing decisions, within the target audience during which approved uses, safety, effectiveness, contraindications, side effects, warnings or other relevant characteristics of a pharmaceutical product are discussed in an effort to increase prescribing preferences of a pharmaceutical product for its approved uses. Activities conducted by medical support staff (such as medical science liaisons), key account managers, thought leader liaisons and managed markets/reimbursement team will not constitute Details. E-details, activities conducted at conventions or similar gatherings and activities performed by market development specialists, managed care account directors and other personnel not performing face-to-face sales calls or not specifically trained with respect to a pharmaceutical product will not constitute Details. "**Detailing**" means the act of performing Details and to "**Detail**" mean to perform Details.

ARTICLE 7
FINANCIAL PROVISIONS

7.1 Upfront Payment. Janssen will make a non-refundable, non-creditable payment of US$50 million to Xencor within [***] Business Days after the Effective Date.

7.2 Development and Regulatory Milestones.

7.2.1 Milestone Payments and Events. Janssen will make the payments set forth in the table below (each, a "**Milestone Payment**") to Xencor within [***] after Xencor delivers an invoice to Janssen upon the first occurrence of the corresponding milestone event set forth below (each, a "**Milestone Event**"). Janssen will notify Xencor within [***] Business Days after the first occurrence of any of the Milestone Events.

[***]

7.2.2 Rules regarding Determination of Milestone Payments and Events. [***]

7.2.2.1 The Milestone Payments under this Section 7.2 will be non-refundable and non-creditable. Each Milestone Payment shall be payable only once upon the first occurrence of the relevant Milestone Event by a Licensed Product, even if the Milestone Event occurs with respect to more than one Licensed Product, with respect to more than one Indication, multiple times with respect to the same Licensed Product or multiple times with respect to the same Indication.

7.3 Sales Milestones.

7.3.1 Sales Milestones if Xencor does not Exercise Co-Funding Option. If Xencor does not exercise the Co-Funding Option in accordance with Section 6.2, then this Section 7.3.1 will apply and Section 7.3.2 will not apply. Janssen will notify Xencor in the applicable royalty report delivered pursuant to Section 7.4.5 the first time the aggregate Net Sales of all Licensed Products in any Calendar Year by Janssen, its Affiliates and its sublicensees in the Territory exceed the amounts set forth in the table set forth below in this Section 7.3.1 (each, a "**Sales Milestone Event**"); provided, however, that Net Sales of a particular Licensed Product in a particular country occurring after expiration of the Royalty Term for such Licensed Product in such country will be disregarded in the calculation of Net Sales for purposes of this Section 7.3.1. Janssen will pay to Xencor the applicable milestone payments set forth in the table below (each, a "**Sales Milestone Payment**") within [***] after receipt of an invoice from Xencor with respect to achievement of each Sales Milestone Event.

Sales Milestone Event	Sales Milestone Payment
[***]	[***]
[***]	[***]

[***]	[***]
[***]	[***]

7.3.2 Sales Milestones if Xencor Exercises Co-Funding Option. If Xencor exercises the Co-Funding Option in accordance with Section 6.2, Section 7.3.1 will not apply and instead this Section 7.3.2 will apply. Janssen will notify Xencor in the applicable royalty report delivered pursuant to Section 7.4.5 the first time the aggregate Net Sales of all Licensed Products in any Calendar Year by Janssen, its Affiliates and its sublicensees in the Territory exceed the amounts set forth in the table set forth below in this Section 7.3.2 (each, a "**Co-Funding Sales Milestone Event**"); provided, however, that Net Sales of a particular Licensed Product in a particular country occurring after expiration of the Royalty Term for such Licensed Product in such country will be disregarded in the calculation of Net Sales for purposes of this Section 7.3.2. Janssen will pay to Xencor the applicable milestone payments set forth in the table below (each, a "**Co-Funding Sales Milestone Payment**") within [***] days after receipt of an invoice from Xencor with respect to achievement of each Co-Funding Sales Milestone Event.

Co-Funding Sales Milestone Event	**Co-Funding Sales Milestone Payment**
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]

7.3.3 Rules regarding Determination of Sales Milestone Payments and Events. [***]

7.4 Royalties.

7.4.1 Royalty Rates.

7.4.1.1 *Royalty Rates if Xencor does not Exercise Co-Funding Option.* If Xencor does not exercise the Co-Funding Option in accordance with Section 6.2, this Section 7.4.1.1 will apply and Section 7.4.1.2 will not apply. Subject to Section 7.4.2 through Section 7.4.6, Janssen will pay to Xencor royalties on the aggregate Net Sales of Licensed Products by Janssen, its Affiliates and sublicensees during the applicable Royalty Term in the Territory during each Calendar Year at the rates set forth in the table below in this Section 7.4.1.1. For clarity, Net Sales of all Licensed Products will be aggregated for purposes of calculation of royalties pursuant to this Section 7.4.1.1; provided, however, that Net Sales of a particular Licensed Product in a particular country occurring after expiration of the Royalty Term for such

Licensed Product in such country will be disregarded in the calculation of royalties pursuant to this Section 7.4.1.1.

Annual Aggregate Net Sales of Licensed Products in the Territory	**Royalty Rate**
For that portion of annual Net Sales of Licensed Products in the Territory in such Calendar Year less than US$[***]	[***]
For that portion of annual Net Sales of Licensed Products in the Territory in such Calendar Year greater than or equal to US$[***] and less than US$[***]	[***]
For that portion of annual Net Sales of Licensed Products in the Territory in such Calendar Year greater than or equal to US$[***]	[***]

[***]

7.4.1.2 *Royalty Rates if Xencor Exercises Option.* If Xencor exercises the Co-Funding Option in accordance with Section 6.2, this Section 7.4.1.2 will apply and Section 7.4.1.1 will not apply. Subject to Section 7.4.2 through Section 7.4.6, Janssen will pay to Xencor royalties on the aggregate Net Sales of Licensed Products by Janssen, its Affiliates and sublicensees during the applicable Royalty Term in the Territory during each Calendar Year at the rates set forth in the table below in this Section 7.4.1.2. For clarity, Net Sales of all Licensed Products will be aggregated for purposes of calculation of royalties pursuant to this Section 7.4.1.2; provided, however, that Net Sales of a particular Licensed Product in a particular country occurring after expiration of the Royalty Term for such Licensed Product in such country will be disregarded in the calculation of royalties pursuant to this Section 7.4.1.2.

Annual Aggregate Net Sales of Licensed Products in the Territory	**Co-Funding Royalty Rate**
For that portion of annual Net Sales of Licensed Products in the Territory in such Calendar Year less than US$[***]	[***]
For that portion of annual Net Sales of Licensed Products in the Territory in such Calendar Year greater than or equal to US$[***] and less than US$[***]	[***]
For that portion of annual Net Sales of Licensed Products in the Territory in such Calendar Year greater than or equal to US$[***]	[***]

[***]

7.4.2 Royalty Term. Royalties will be paid on a Licensed Product-by-Licensed Product and country-by-country basis, beginning with the First Commercial Sale of a Licensed Product in a country and ending on the later of: (a) the expiration of the last-to-expire Valid Claim of a Royalty-Bearing Patent with respect to the Licensed Product in the country; (b) the expiration of Regulatory Exclusivity for the Licensed Product in the country, if any; or (c) the 12th anniversary of the First Commercial Sale of such Licensed Product in such country (the "**Royalty Term**"). "**Royalty-Bearing Patent**" means, with respect to a Licensed Product: (i) a Xencor Patent or Joint Patent that Covers the composition of matter or any method of use of such Licensed Product; or (ii) a Patent [***] Controlled by Janssen or any of its Affiliates during the Term that Covers the composition of matter of the Licensed Antibody contained in such Licensed Product. [***]

7.4.3 Royalty Reductions; Third Party Royalty Payments.

7.4.3.1 *Reductions for Loss of Exclusivity.* On a country-by-country and Licensed Product-by-Licensed Product basis, the royalties due to Xencor under Section 7.4.1.1 or 7.4.1.2, as applicable, will be reduced during the Royalty Term to an amount equal to [***] of the amount otherwise payable on Net Sales of such Licensed Product in such country from and after the later of (i) the date that there is no Valid Claim of a Xencor Patent or Joint Patent in such country that Covers the composition of matter or any method of use of such Licensed Product or (ii) if any Regulatory Exclusivity is granted with respect to such Licensed Product in such country, the date on which all such Regulatory Exclusivity expires. Such reduction will be subject to Section 7.4.3.3 and applied in accordance with Section 7.4.3.4.

7.4.3.2 *Third Party Royalty Payments.*

(a) Subject to Section 7.4.3.2(b) and Section 7.4.3.2(c), if Janssen (or its Affiliate) [***] licenses under any Patents or Know-How of any Third Party for the manufacture, use or sale of a Licensed Antibody or Licensed Product (other than with respect to any active ingredient that is not a Licensed Antibody) in a country (each, a "**Third Party License**"), Janssen will have the sole right (but not the obligation) to negotiate and obtain any such license with respect to the applicable Licensed Antibody or Licensed Product. For clarity, Xencor retains a right to negotiate and obtain licenses under any Patents or Know-How of any Third Party with respect to Antibodies and products of Xencor that are not Licensed Antibodies or Licensed Products.

(i) With respect to such Patents or Know-How [***] for the manufacture, use or sale of a Licensed Antibody or Licensed Product, Janssen will have the right to deduct [***] of the royalties actually paid to such Third Party(ies) under the applicable Third Party License(s) by Janssen (or by such Affiliate or, to the extent offset against royalties paid to Janssen, its sublicensee, as applicable) with respect to sales of the applicable Licensed Product in such country in a Calendar Quarter from the royalty payments payable by Janssen to Xencor with respect to Net Sales of such Licensed Product in such country in such Calendar Quarter.

(ii) With respect to such Patents or Know-How [***] for the manufacture, use or sale of a Licensed Antibody or Licensed Product (e.g. formulation

technology or for ease of administration), Janssen will have the right to deduct [***] of the royalties actually paid to such Third Party(ies) under the applicable Third Party License(s) by Janssen (or by such Affiliate or, to the extent offset against royalties paid to Janssen, its sublicensee, as applicable) with respect to sales of the applicable Licensed Product in such country in a Calendar Quarter from the royalty payments payable by Janssen to Xencor with respect to Net Sales of such Licensed Product in such country in such Calendar Quarter.

(iii) Such deductions will be subject to Section 7.4.3.3 and applied in accordance with Section 7.4.3.4.

(b) If a Party becomes aware that it is necessary to obtain one or more licenses under any Patents or Know-How of any Third Party in order to practice any Xencor Binding Domain for a Licensed Antibody (including for a Licensed Antibody contained in a Licensed Product) in a country, such Party will promptly notify the other Party. Xencor will have the sole responsibility and right to negotiate and obtain such license, provided that such license does not impose any liability, restriction or obligation on Janssen (beyond the terms and conditions in connection with the practice of such license) without Janssen's consent. Such Third Party's Patents or Know-How, as applicable, will be included in the Xencor Research Patents, Xencor Patents or Xencor Research Know-How, as applicable. Xencor will be responsible for all payments under such license.

(c) If a Party becomes aware that it is necessary to obtain one or more licenses under any Patents or Know-How of any Third Party in order to practice any Janssen Binding Domain for a Licensed Antibody (including for a Licensed Antibody contained in a Licensed Product) in a country, such Party will promptly notify the other Party. Janssen will have the sole responsibility and right to negotiate and obtain such license, provided that such license does not impose any liability, restriction or obligation on Xencor (beyond the terms and conditions in connection with the practice of such license) without Xencor's consent. Such Third Party's Patents or Know-How, as applicable, will be included in the Janssen Research Patents or Janssen Research Know-How, as applicable. Janssen will be responsible for all payments under such license.

7.4.3.3 *Royalty Floor.* In no event will the total reductions and deductions under Sections 7.4.3.1 and 7.4.3.2 reduce the royalties payable to Xencor under Section 7.4.1.1 or 7.4.1.2, as applicable, with respect to a given Licensed Product in a given country in any Calendar Quarter by more than [***] of the amount that would otherwise be payable if such reductions and deductions were not made.

7.4.3.4 *Royalty Calculation.* If the royalties payable with respect to Net Sales of a Licensed Product in a country in a Calendar Quarter are subject to reduction under Section 7.4.3.1 or deductions under Section 7.4.3.2, the royalties payable with respect to such Net Sales will be calculated as follows:

(a) First, determine the aggregate Net Sales of such Licensed Product in such country during such Calendar Quarter that occurred during the applicable Royalty Term (the "**Quarterly Net Sales**").

(b) Second, determine the Effective Royalty Rate for the applicable Calendar Quarter. The "**Effective Royalty Rate**" means, with respect to a particular Calendar Quarter, the amount (expressed as a percentage) equal to A ÷ B (i.e., A divided by B), where:

(i) A = Aggregate amount of royalties payable under Section 7.4.1.1 or 7.4.1.2, as applicable, applying the relevant royalty tiers, on aggregate annual Net Sales of Licensed Products in the Territory during such Calendar Quarter before applying any reductions under Section 7.4.3.1 or deductions under Section 7.4.3.2; and

(ii) B = Aggregate annual Net Sales of Licensed Products in the Territory during such Calendar Quarter (excluding any Net Sales of such Licensed Products that occurred after the expiration of the applicable Royalty Term).

(c) Third, multiply the Effective Royalty Rate by the Net Sales of such Licensed Product in such country in such Calendar Quarter that occurred during the applicable Royalty Term to determine the royalties that would have been payable on the Quarterly Net Sales under Section 7.4.1.1 or 7.4.1.2, as applicable, if no reduction or deduction applied under Section 7.4.3.1 or 7.4.3.2 (the "**Unadjusted Quarterly Royalties**" for such country).

(d) Last, reduce the Unadjusted Quarterly Royalties for such country to the amount specified in Section 7.4.3.1 and by the amount(s) specified in Section 7.4.3.2, as applicable, in each case, to the extent allowable by Section 7.4.3.3.

7.4.4 Expiration of Royalty Term. Upon the expiration of the Royalty Term with respect to a Licensed Product in a country, Xencor hereby grants to Janssen a perpetual, irrevocable, non-exclusive, fully-paid and royalty-free right and license, with the right to grant sublicenses, under the Xencor Intellectual Property to Exploit such Licensed Product in the Field in such country. For clarity, after the Royalty Term expires with respect to a Licensed Product in a country, the calculation of annual aggregate Net Sales of such Licensed Product in the Territory will exclude sales of such Licensed Product in such country.

7.4.5 Royalty Reports and Payments. Commencing with the First Commercial Sale of a Licensed Product by Janssen or its Affiliates or sublicensees in the Territory, royalty payments are due and payable [***] after the end of each Calendar Quarter in which royalties are applicable. Each payment of royalties under this Agreement will be accompanied with a report setting forth, by region (which regions will be the U.S., Canada, Japan, China, each of the Major European Countries and all other countries in the Territory), the Net Sales, the applicable royalty rate and the amount of royalty payment due on such Net Sales. Additionally, Janssen will provide Xencor with a non-binding estimate of each royalty payment for each Calendar Quarter within [***] after the end of such Calendar Quarter. All reports delivered by Janssen under this Section will be Confidential Information of Janssen.

7.4.6 Royalty Conditions. All royalties due to Xencor under this Section 7.4 are subject to the following conditions: (a) only one royalty will be due with respect to the same unit of Licensed Product; and (b) no royalties will be due upon the sale or other transfer among Janssen or its Affiliates, but in such cases the royalty will be due and calculated upon Janssen's or its

Affiliate's Net Sales to the first independent Third Party, and distributors of Janssen selling Licensed Product that are not otherwise sublicensees will not, for this purpose, be deemed to be sublicensees of Janssen and will instead be considered as independent Third Parties.

7.5 Payment Terms.

7.5.1 Payment Instruction. All payments to be made by a Party hereunder will be made in Dollars by electronic funds transfer to the bank account as will be designated by the Party receiving the payment.

7.5.2 Exchange Rate. If any amounts that are relevant to the determination of amounts to be paid under this Agreement or any calculations to be performed under this Agreement are received or paid or initially reported in a currency other than U.S. Dollars, then such amounts will be converted to their U.S. Dollar equivalent as follows:

7.5.2.1 Janssen will notify Xencor in writing of Johnson & Johnson's Currency Hedge Rate for a given Calendar Year in advance of such Calendar Year, within [***] after the Currency Hedge Rate(s) are available from the GTSC or its Affiliates, which is customarily at the end of November of the preceding Calendar Year.

7.5.2.2 Then: (i) the Currency Hedge Rate(s) as provided in the notice to Xencor will remain constant throughout the applicable Calendar Year; and (ii) Janssen will use such Currency Hedge Rate(s) to convert non-U.S. Dollar amounts to U.S. Dollars for the purpose of calculating Net Sales, royalties and the achievement of Sales Milestone Events or Co-Funding Sales Milestone Events, as applicable, for each Calendar Quarter in the applicable Calendar Year.

7.6 Records; Audits.

7.6.1 Records. Each Party will keep, and cause its Affiliates and sublicensees to keep, complete and accurate records of the items underlying Shared Development Costs, Net Sales and any other elements required to prepare the reports or calculate payments required by under this Agreement. Such records must be retained for a period of [***] following the relevant reporting period.

7.6.2 Audits.

7.6.2.1 Each Party will have the right at its own expense to have an independent, certified public accountant of nationally recognized standing, selected by such Party and reasonably acceptable to the other Party, review any records of the other Party and its Affiliates that are required to be kept pursuant to Section 7.6.1 in the location(s) where such records are maintained by the other Party or its Affiliates upon prior written notice and during normal business hours and under obligations of confidence, for the sole purpose of verifying the basis and accuracy of payments made under this Agreement, within the prior [***] period. Audits may not be conducted by a Party under this Section more than once every [***], and an audit of the records relating to a particular Calendar Year may be conducted not more than once.

7.6.2.2 The report of the independent certified public accountant will be shared with the audited Party before distribution to the auditing Party so that the audited Party can provide the independent public accountant with justifying remarks for inclusion in the report before sharing the conclusions of such independent public audit with the auditing Party. The final audit report will be shared with the auditing and audited Party at the same time and will specify whether the amounts paid to the auditing Party during the audited period were correct or, if incorrect, the amount of any underpayment or overpayment. The audit report will only contain the information relevant to support the statement as to whether the amounts due under this Agreement were calculated and paid accurately and will not include any other confidential information (or other additional information that is ordinarily not included in the reports to the auditing Party) disclosed to the auditor during the course of the audit.

7.6.2.3 If the review of such records reveals that the audited Party has failed to accurately report information pursuant to the relevant provisions of this Agreement or make any payment (or portion thereof) required under this Agreement, then the audited Party will pay, within [***] days after receipt of the final audit report by the audited Party, to the auditing Party any underpaid amounts due under this Agreement. If any such discrepancies resulted in an underpayment of amounts due under this Agreement greater than [***] of the amounts actually due for the applicable audit period, the audited Party will pay all reasonable costs incurred in conducting such review. If the audited Party disagrees with the findings of the audit report, the Parties will first seek to resolve the matter between themselves, and in the event they fail to reach agreement, the dispute resolution provisions set forth in ARTICLE 15 will apply.

7.7 Taxes.

7.7.1 Withholding.

7.7.1.1 Janssen will make all payments to Xencor under this Agreement without deduction or withholding for Taxes except to the extent that any such deduction or withholding is required by law in effect at the time of payment.

7.7.1.2 Any Tax required to be withheld on amounts payable under this Agreement will be paid by Janssen on behalf of Xencor to the appropriate Governmental Authority, and Janssen will furnish Xencor with proof of payment of such Tax. Any such Tax required to be withheld will be an expense of and borne by Xencor. If any such Tax is assessed against and paid by Janssen, then Xencor will indemnify and hold harmless Janssen from and against such Tax.

7.7.1.3 Janssen and Xencor will cooperate with respect to all documentation required by any taxing authority or reasonably requested by Janssen to secure a reduction in the rate of applicable withholding Taxes. On the date of execution of this Agreement, Xencor will deliver to Janssen an accurate and complete Internal Revenue Service Form W-9.

7.7.2 Indirect Taxes. Amounts payable under this Agreement do not include any sales, use, excise, value added or other applicable taxes, tariffs or duties. If any taxing authority imposes a VAT, GST, sales, use, service, consumption, business or similar Tax with respect to the work undertaken under this Agreement, then Janssen agrees to pay that amount if specified in a valid invoice or supply exemption documentation. For avoidance of doubt, Xencor will not be entitled to pass on to Janssen, and Janssen will not be obligated to pay or bear, any Tax that is based on Xencor's real, personal or intangible property (whether owned or leased), corporate structure, franchise, continuing business operations, income, gross receipts, capital stock, net worth or imposed with respect to Xencor's engagement of employees or independent contractors or that Xencor incurs upon subcontracting any work hereunder, in whole or in part, to any affiliated or non-affiliated third party. Xencor is solely responsible, to the extent required by applicable law, for identifying, billing, and collecting the Taxes payable by Janssen in all relevant federal, state, county, municipal and other taxing jurisdictions and for filing all required tax returns in a timely manner. To the extent that Xencor does not provide Janssen a valid invoice (i.e., an invoice compliant with this Agreement and the rules and regulations of the jurisdiction of both Xencor and Janssen, including separate identification of the Tax where legally required), Xencor shall be responsible for any penalty resulting directly from such noncompliance. The Parties will cooperate in good faith to minimize Taxes to the extent legally permissible.

ARTICLE 8
LICENSE GRANTS; EXCLUSIVITY

8.1 Grants.

8.1.1 Licenses to Janssen.

8.1.1.1 *Research License*. Subject to the terms and conditions of this Agreement, Xencor hereby grants, on behalf of itself and its Affiliates, to Janssen during the Term an exclusive (even as to Xencor and its Affiliates, except with respect to performance of its obligations under this Agreement), royalty-bearing, non-transferable (except as provided in Section 16.1), sublicenseable (solely as provided in Section 8.2) license, under the Xencor Research Intellectual Property, to Research Licensed Antibodies in the Field in the Territory (the "**Research License**").

8.1.1.2 *Commercial License*. Subject to the terms and conditions of this Agreement, Xencor hereby grants, on behalf of itself and its Affiliates, to Janssen during the Term an exclusive (even as to Xencor), royalty-bearing, non-transferable (except as provided in Section 16.1), sublicenseable (solely as provided in Section 8.2) license, under the Xencor Intellectual Property, to Exploit (but not to Research) Licensed Antibodies and Licensed Products in the Field in the Territory. Janssen shall not Develop, Manufacture or Commercialize during the Term (i) any Licensed Antibody that is Researched using Know-How or Patents Controlled by Xencor or its Affiliates that are not licensed to Janssen pursuant to the Research License or (ii) any Licensed Product containing a Licensed Antibody described in clause (i).

8.1.1.3 *Other Antibodies and APIs*. Notwithstanding anything to the contrary, the licenses granted by Xencor to Janssen under this Section 8.1.1 with respect to Licensed Products do not grant any right or license under any Patent that Covers any composition of matter of any Antibodies or other active ingredients other than Licensed Antibodies.

8.1.2 License to Xencor. Subject to the terms and conditions of this Agreement, Janssen, on behalf of itself and its Affiliates, hereby grants to Xencor, during the Research Program Term, a non-exclusive, royalty-free, non-transferable (except as permitted under in Section 16.1), sublicensable (solely as provided in Section 8.2) license under (a) the Xencor Intellectual Property licensed to Janssen under Section 8.1.1 and (b) the Janssen Research Intellectual Property, in each case ((a) and (b)), solely to the extent necessary for Xencor to perform its obligations under this Agreement with respect to the Research Program.

8.1.3 Cross-License.

8.1.3.1 Subject to the terms and conditions of this Agreement (including the restrictions set forth in Section 3.4.3 and Section 8.4 and the confidentiality obligations under ARTICLE 10), Xencor hereby grants to Janssen a non-exclusive, worldwide, irrevocable, royalty-free, perpetual license to use for all purposes any technical Know-How Controlled by Xencor and disclosed to Janssen pursuant to this Agreement; provided, however, that such license does not include (i) a grant of any rights to Janssen for any Exploitation of any Licensed Antibody or Licensed Product, (ii) a right to practice any Patents owned or Controlled by Xencor or its Affiliates, (iii) a right to practice any Xencor Platform Technology, (iv) a right to practice Know-How embodied by Materials supplied by Xencor to Janssen, or (v) a right to use any Materials provided by Xencor. For clarity, this does not give Janssen the right to disclose any Confidential Information of Xencor.

8.1.3.2 Subject to the terms and conditions of this Agreement (including the restrictions set forth in Section 3.4.3 and Section 8.4 and the confidentiality obligations under ARTICLE 10), Janssen hereby grants to Xencor a non-exclusive, worldwide, irrevocable, royalty-free, perpetual license to use for all purposes any technical Know-How Controlled by Janssen and disclosed to Xencor pursuant to this Agreement; provided, however, that such license does not include (i) a grant of any rights to Xencor for any Exploitation of any Licensed Antibody or Licensed Product, (ii) a right to practice any Patents owned or Controlled by Janssen or its Affiliates, (iii) a right to practice Know-How embodied by Materials supplied by Janssen to Xencor, or (iv) a right to use any Materials provided by Janssen. For clarity, this does not give Xencor the right to disclose any Confidential Information of Janssen.

8.1.4 License to Assigned Inventions. Subject to the terms and conditions of this Agreement (including the restrictions set forth in Section 3.4.3 and Section 8.4 and the confidentiality obligations under ARTICLE 10), Xencor hereby grants to Janssen a non-exclusive, worldwide, irrevocable, royalty-free, perpetual license to use for all purposes any Janssen Assigned Invention; provided, however, that such license does not include (i) a grant of any rights to Janssen for the Exploitation of any Licensed Antibody or Licensed Product or (ii) a grant of any rights to practice, other than Janssen Assigned Inventions, any Patents or Know-

How owned or Controlled by Xencor or its Affiliates. "**Janssen Assigned Inventions**" means the Inventions (and Patents filed thereon) that are assigned by Janssen to Xencor pursuant to Section 9.2.2.2(a) but not including those Inventions (and Patents filed thereon) primarily directed to an improvement of a Xencor Binding Domain.

8.1.5 Affiliates. If any of the Patents or Know-How licensed by one Party to the other Party pursuant to this Section 8.1 is Controlled by an Affiliate of the licensing Party, the licensing Party will procure that such Affiliate grants the licenses to the other Party in accordance with this Section 8.1.

8.2 Sublicensing.

8.2.1 Sublicenses by Janssen. Janssen may grant and authorize sublicenses of any of the rights granted to it by Xencor under Section 8.1.1 and Section 8.1.3.2 without the consent of Xencor to one or more of its Affiliates or to one or more Third Parties through multiple tiers. Janssen may grant and authorize sublicenses of any of the rights granted to it by Xencor under Section 8.1.3.1 without the consent of Xencor to one or more of its Affiliates. Janssen may not grant or authorize sublicenses of any of the rights granted to it by Xencor under Section 8.1.3.1 to any Third Party without the prior written consent of Xencor, which will not be unreasonably withheld, delayed or conditioned.

8.2.2 Sublicenses by Xencor. Xencor may grant and authorize sublicenses of any of the rights granted to it by Janssen under Section 8.1 without the consent of Janssen to one or more of its Affiliates. Xencor may not grant or authorize sublicenses of any of the rights granted to it by Janssen under Section 8.1 to any Third Party without the prior written consent of Janssen, which will not be unreasonably withheld, delayed or conditioned.

8.2.3 Sublicense Requirements. Each sublicense will be pursuant to a written agreement that is subject to and consistent with the terms and conditions of this Agreement. The sublicensing Party will remain directly responsible and fully liable to the other Party for the performance of the sublicensee in accordance with this Agreement. The sublicensing Party will provide to the other Party a copy of each sublicense agreement within [***] following the execution thereof, provided that the sublicensing Party will be permitted to redact commercially sensitive terms to the extent such terms are not necessary for the other Party to confirm compliance with this Agreement.

8.3 No Implied Licenses. Neither Party grants to the other Party any rights or licenses in or to any Know-How, Patents or other intellectual property rights, whether by implication, estoppel, or otherwise, other than the rights and licenses that are expressly granted under this Agreement.

8.4 Exclusivity.

8.4.1 Definitions.

8.4.1.1 "**Bispecific Competing Product**" means [***].

8.4.1.2 "**Competing Product**" means [***].

8.4.1.3 "**Derived Competing Product**" means [***].

8.4.1.4 "**First Exclusivity Period**" means the period beginning on the Effective Date and ending on the earlier of (i) the last day of the Term or (ii) [***].

8.4.1.5 "**Scale-Up**" means, with respect to a Licensed Product, that such Licensed Product has been successfully produced by or on behalf of Janssen or its Affiliates in a [***] that is at least [***] in volume.

8.4.1.6 "**Second Exclusivity Period**" means the period beginning [***] and ending on the earlier of (i) the last day of the Term or (ii) [***].

8.4.1.7 [***].

8.4.2 First Exclusivity Period. During the First Exclusivity Period, neither Party nor any of its Affiliates will conduct, directly or indirectly, or collaborate with, license or otherwise grant any rights to any Third Party to conduct, any Research, non-clinical or clinical Development, Manufacture or Commercialization of any Competing Product in the Field in the Territory, except for use of Competing Products as research tools.

8.4.3 Second Exclusivity Period. During the Second Exclusivity Period, neither Party nor any of its Affiliates will conduct, directly or indirectly, or collaborate with, license or otherwise grant any rights to any Third Party to conduct, any clinical Development (or activities to scale-up for clinical Development), Manufacture or Commercialization of any Bispecific Competing Product in the Field in the Territory. For clarity, for all purposes of this Section 8.4.3, "clinical Development" excludes Research.

8.4.4 Derived Competing Products. During the Term, neither Xencor nor any of its Affiliates will conduct, directly or indirectly, or collaborate with, license or otherwise grant any rights to any Third Party to conduct, any Research, non-clinical or clinical Development, Manufacture or Commercialization of any Derived Competing Product in the Field in the Territory.

8.4.5 Effect of Xencor Change of Control.

8.4.5.1 If, on the date of consummation of a Change of Control of Xencor, the Acquirer of Xencor in such Change of Control transaction is conducting Research, Development, Manufacture or Commercialization activities with respect to a Competing Product that would otherwise be prohibited under Section 8.4.2 (an "**Acquirer Competing Product**"), [***].

8.4.5.2 [***].

8.4.5.3

(a) Except as provided in Section 8.4.5.3(b), the restrictions in Section 3.4.3.2 will apply to an Acquirer of Xencor and its Affiliates, and will continue to apply to Xencor and its other Affiliates, after the consummation of a Change of Control of Xencor.

(b) After the consummation of a Change of Control of Xencor, the restrictions in Section 3.4.3.2 will not apply to the Research, Development, Manufacture or Commercialization by the Acquirer of an Acquirer Competing Product containing a Janssen Binding Domain so long as (i) neither Xencor (nor any Affiliate of Xencor that was an Affiliate of Xencor immediately prior to such Change of Control) disclosed or otherwise provided the Janssen Binding Domain to the Acquirer and (ii) [***].

8.4.5.4 For clarity, the restrictions in Section 8.4.4 will apply to an Acquirer of Xencor and its Affiliates, and will continue to apply to Xencor and its other Affiliates, after the consummation of a Change of Control of Xencor.

8.4.6 Acquisition of Competing Products.

If either Party or any of its Affiliates acquires rights to any Competing Product as the result of a merger, acquisition, combination or similar transaction with, of or by a Third Party, and as of the date of consummation of such transaction, there are on-going activities with respect to such Competing Product that are prohibited under Section 8.4.2 or Section 8.4.3 (in each case, after giving effect to Section 8.4.5), then the Party who acquired (or whose Affiliate acquired) such rights to such Competing Product ("**Acquiring Party**") will, within [***] after the date of consummation of such transaction, notify the other Party in writing whether it (or its Affiliate) will:

(a) enter into a definitive agreement with a Third Party to divest such Competing Product within [***] after the consummation of such transaction; or

(b) discontinue or terminate its activities with respect to such Competing Product no later than [***] after the closing of such transaction, until the expiration of the First Exclusivity Period or Second Exclusivity Period, as applicable.

During any period in which the Acquiring Party is permitted to continue Researching, Developing, Manufacturing or Commercializing such Competing Product in accordance with clause (a) or (b) above, the applicable prohibition under Section 8.4.2 or Section 8.4.3 will not apply with respect to such Competing Product and the Acquiring Party will [***].

8.4.7 Effect of Transfer of Xencor Intellectual Property. Neither Xencor nor any of its Affiliates will sell or otherwise transfer the ownership of any Xencor Intellectual Property to any Third Party (including through a sale or ownership transfer by an Affiliate of Xencor that Controls such intellectual property) without imposing on such Third Party the restrictions set forth in Section 8.4.2 solely with respect to its use of such Xencor Intellectual Property. A Change of Control of Xencor or its Affiliates is not deemed to constitute, by itself, a sale or transfer of Xencor Intellectual Property under this Section 8.4.7.

ARTICLE 9
INTELLECTUAL PROPERTY

9.1 Patent Representatives. Each Party will designate a patent attorney or agent as its contact to coordinate with the other Party the filing, prosecution and maintenance of Patents as provided in this Article (the "**Patent Representative**").

9.2 Inventions.

9.2.1 Inventorship. The Parties agree that ownership of inventions conceived or first reduced to practice in the course of activities performed under this Agreement, together with all intellectual property rights therein (collectively, "**Inventions**") will be consistent in the Territory with ownership as determined by application of U.S. patent Laws pertaining to inventorship. In no event will either Party be liable to the other Party for compensation to any inventors for Inventions conceived or first reduced to practice by director(s), officer(s) or employee(s) of the other Party regardless of which Party has ownership rights to such Inventions pursuant to this Section.

9.2.2 Ownership.

9.2.2.1 Subject to Section 9.2.2.2, all Inventions conceived or first reduced to practice solely by or on behalf of Janssen will be solely owned by Janssen, all Inventions conceived or first reduced to practice solely by or on behalf of Xencor will be solely owned by Xencor, and all Inventions conceived or first reduced to practice jointly by or on behalf of Janssen and Xencor will be jointly owned by Janssen and Xencor.

9.2.2.2 Notwithstanding Section 9.2.2.1, the ownership of the following Inventions will be as follows, regardless of the inventorship of such Inventions between the Parties:

(a) Xencor will solely own any Invention that would otherwise be owned or jointly owned by Janssen that: [***].

(b) Janssen will solely own any Invention that would otherwise be owned or jointly owned by Xencor that: [***].

Each Party hereby makes all assignments necessary to accomplish the foregoing ownership.

9.2.2.3 In the case of Inventions jointly owned by Janssen and Xencor ("**Joint Inventions**"), and any Patents that claim or disclose such Joint Inventions ("**Joint Patents**"), each Party will own an equal and undivided interest in the Joint Inventions and Joint Patents, with the right to practice, license and exploit the Joint Inventions and Joint Patents, without the duty or accounting or seeking consent from the other Party, subject to any exclusive licenses granted herein and in a manner not inconsistent with this Agreement.

9.2.3 Disclosure. Each Party will, and will cause its Affiliates to, promptly disclose to the other Party in writing, the conception, development or reduction to practice of: (a) any

Invention that is conceived or first reduced to practice during the Research Program Term; and (b) any Invention that is conceived or first reduced to practice during the Term that would be the subject of a [***]. Each Party will cause its Affiliates, employees, directors and officers to assign to such Party, such Person's right, title and interest in and to any such Inventions, and intellectual property rights therein, as is necessary to enable such Party to fully effect the ownership of such Inventions, and intellectual property rights therein, as provided for in Section 9.2.2. Each Party will include provisions that effect the intent of this ARTICLE 9 in its relevant agreements with Third Party sublicensees and Third Party contractors performing obligations on its behalf pursuant to this Agreement. Each Party will, and will cause its Affiliates, employees, directors, and officers, Third Party contractors and Third Party sublicensees, in each case to cooperate with the other Party and take all reasonable additional actions and execute such agreements, instruments and documents as may be reasonably required to perfect the other Party's right, title and interest in and to Inventions, and intellectual property rights therein, as set forth in this Section 9.2. Regardless of the foregoing and any provision of this Section 9.2, a Party engaging a CRO (or clinical trial site) for the conduct of Clinical Studies or a CMO may agree to such terms as to the ownership of intellectual property, including Patents, as is reasonable under the circumstances and/or customary.

9.3 Prosecution of Patents.

9.3.1 Xencor Patents.

9.3.1.1 The Parties recognize that it is their shared goal to obtain the broadest patent coverage available with regard to the Xencor Patents and Xencor Research Patents, consistent with the goal of obtaining patents that are valid and enforceable as against Third Parties. Janssen acknowledges that there may be multiple licensees of certain Xencor Patents or Xencor Research Patents which are included in Xencor Platform Technology and that Xencor has the right to determine how best to conduct patent prosecution of such Xencor Patents or Xencor Research Patents, as applicable, considering in good faith the interests of all such licensees to the extent obligated to do so.

9.3.1.2 Xencor has the right using patent counsel selected by Xencor to prepare, file, prosecute (including any interferences, oppositions, reissue proceedings, reexaminations and similar proceedings) and maintain (collectively, "**Prosecution**" or to "**Prosecute**") [***] Xencor will take such reasonable acts in connection therewith as Xencor deems appropriate, provided Xencor considers in good faith any comments of Janssen and is acting in good faith to obtain and maintain [***] effective for market exclusivity of Licensed Products. As of the Effective Date, Xencor uses certain external patent counsel to Prosecute [***]. In the event that such external patent counsel are effectively replaced by Xencor, the replacement patent counsel must be reasonably acceptable to Janssen.

9.3.1.3 Section 9.3.1.2 notwithstanding, with respect to [***], Xencor will promptly provide Janssen with copies of all correspondence to or from the USPTO, EPO and equivalent patent offices in foreign jurisdictions, relating to such [***]. Xencor will reasonably cooperate with Janssen in Prosecuting the [***], and in such case, in the event of any disagreement between Xencor and Janssen regarding the Prosecution of [***] under this Section:

(a) after the earliest Candidate Selection Date, Janssen will have final decision-making authority and Xencor will (and will cause its outside counsel to) Prosecute [***] as instructed by Janssen, including in countries requested by Janssen to the extent permitted by applicable Law; and (b) prior to [***], Xencor will have final decision-making authority.

9.3.1.4 If Xencor, prior or subsequent to filing any Patent that would constitute [***], elects not to Prosecute such Patent, Xencor will give Janssen notice thereof within a reasonable period prior to allowing such Patent to lapse or become abandoned or unenforceable, and Janssen will thereafter have the right, but not the obligation, to Prosecute such [***]. If Janssen assumes responsibility for such [***] pursuant to this Section, Xencor will reasonably cooperate with Janssen in Prosecuting such Patents and, in such case, in the event of any disagreement between Xencor and Janssen regarding the Prosecution of [***] under this Section, Janssen will have final decision-making authority and Xencor will (and will cause its outside counsel to) Prosecute [***] as instructed by Janssen, including in countries requested by Janssen to the extent permitted by applicable Law.

9.3.1.5 As between the Parties, Xencor will be solely responsible for all costs and expenses Xencor incurs in connection with the Prosecution of [***]. Janssen will reimburse Xencor for all reasonable out-of-pocket costs incurred by Xencor in connection with the Prosecution of the [***]; provided, however, that at any time Janssen may elect not to be responsible for such costs, in which case such applicable [***] will no longer be included in any licenses granted to Janssen hereunder.

9.3.1.6 The Parties understand that certain grounds for rejection in the United States may be cured or remedied by assignment of a Patent from one Party to another to allow for the filing of terminal disclaimers. In the case of [***] Controlled by Janssen for which such assignment can provide such remedy, the Parties agree to discuss in good faith the best course of action, including the assignment of [***] Controlled by Janssen to vest ownership in one or both Parties to remedy such rejection. If, after discussion, the Parties do not agree on the course of action to take, either Party may refer the matter to the Executive Officers for resolution. Such Executive Officers shall endeavor to meet promptly to discuss the matter. If the Executive Officers do not reach consensus on such matter within [***] after such matter is referred to them, then (i) in the case of assignment of a [***], Xencor will have final say, and (ii) in the case of assignment of a [***] Controlled by Janssen, Janssen will have the final say.

9.3.1.7 It is the intention of the Parties that this Agreement is a "joint research agreement" as that phrase is defined in Public Law 108-53 (the "**Create Act**"). If Janssen or Xencor intends to overcome a rejection of a claimed invention in a [***] Controlled by Janssen pursuant to the provisions of the Create Act under this Agreement, such Party shall first obtain the prior written consent of the other Party. Following receipt of such written consent, Xencor and Janssen shall limit any amendment to the specification or statement to the patent office with respect to this Agreement to that which is strictly required by 35 USC § 102(c) and the rules and regulations promulgated thereunder and which is consistent with the terms and conditions of this Agreement.

9.3.2 Janssen Patents. Janssen will be solely responsible for the Prosecution of and the cost for [***].

9.3.3 Joint Patents.

9.3.3.1 [***]

9.3.3.2 [***]

9.3.3.3 *Joint Patent Costs.* [***]

9.3.4 Cooperation. Each Party agrees to reasonably cooperate with the other with respect to the Prosecution of Patents pursuant to this Section 9.3. At the request of the other Party, the Party responsible for Prosecuting a Patent will make reasonable efforts to separately prosecute subject matter solely related to [***] separate from other subject matter which may be disclosed or claimed in any Patent hereunder, to the extent it may reasonably do so without jeopardizing or impairing any such Patents. Each Party's rights to Prosecute a Patent pursuant to this Section 9.3 will be subject to the applicable provisions of any agreements between the Party controlling such Patents and its licensor. All information exchanged between the Parties under this Section 9.3 pertaining to any [***] will be deemed Confidential Information of Xencor, all information exchanged between the Parties under this Section 9.3 pertaining to any Janssen Patent will be deemed Confidential Information of Janssen, and all information exchanged between the Parties under this Section 9.3 pertaining to any Joint Patents will be deemed Confidential Information of both Parties.

9.4 Patent Enforcement.

9.4.1 Notice. In the event that Xencor or Janssen becomes aware of any actual infringement or threat of infringement of any Xencor Patent, Xencor Research Patent, Janssen Patent or Joint Patent by means of the sale, including the manufacture for sale, by a Third Party of a Third Party Competitive Product or a biosimilar product with respect to any Licensed Antibody or any Licensed Product, or if any Xencor Patent, Xencor Research Patent, Janssen Patent or Joint Patent is challenged in any action or proceeding (other than any oppositions, cancellations, interferences, reissue proceedings or reexaminations, which are addressed above) as invalid or unenforceable (such infringements and challenges collectively, "**Product Infringement**" with respect to such Licensed Antibody or Licensed Product), such Party will notify the other Party promptly, and following such notification, the Parties will confer. As used in this Section, a "**Third Party Competitive Product**" means any Antibody containing a CD28 Binding Domain and a Target Prostate Antigen Binding Domain.

9.4.2 Enforcement of [***].

9.4.2.1 After earliest Candidate Selection, Janssen will have the first right to institute infringement suits or take other action under the [***], in each case to the extent the same is directed to a Product Infringement, including defense of a declaratory judgment action with respect to a potential Product Infringement (whether prior to or after the First Commercial Sale of such Licensed Product) (each, an "**Infringement Action**"). Janssen will have the right to institute such suit or other appropriate action in the name of Xencor or of Janssen, or in the

names of both of them. For clarity, Janssen will have the right to institute infringement suits or take other action under Patents owned or controlled by Janssen (not Joint Patents), provided that Janssen will keep Xencor reasonably updated on the progress of any such suits or actions.

9.4.2.2 If Janssen institutes or undertakes an Infringement Action in accordance with Section 9.4.2.1, Xencor will cooperate fully with Janssen in its efforts to protect such Patents and will agree to be a party in any suit, if required, in each case with respect to such Infringement Action, in each case at Janssen's sole expense. Xencor will have the right, in Xencor's sole discretion and at Xencor's expense, to join or otherwise participate in such Infringement Action with legal counsel selected by Xencor. Janssen will notify and keep Xencor apprised in writing of such Infringement Action and will consider and take into account Xencor's reasonable interests and requests regarding such Infringement Action.

9.4.2.3 If Janssen does not institute or undertake an Infringement Action in accordance with Section 9.4.2.1 for a period [***] after being requested by Xencor to do so, or (if sooner) at least [***] prior to the last date such Infringement Action may be brought, Xencor may institute or undertake and thereafter control such Infringement Action. In such event, Xencor will have the right, but not the obligation, to institute or undertake such suit or other appropriate Infringement Action in the name of Xencor or of Janssen or in the names of both of them. Janssen will cooperate fully with Xencor in its efforts to protect such Patents and will agree to be a party in any suit, if required, in each case with respect to such Infringement Action, in each case at Xencor's sole expense. Janssen will have the right, in Janssen's sole discretion and at Janssen's expense, to join or otherwise participate in such Infringement Action with legal counsel selected by Janssen. Xencor will notify and keep Janssen apprised in writing of such Infringement Action and will consider and take into account Janssen's reasonable interests and requests regarding such Infringement Action.

9.4.3 Enforcement of Joint Patents other than [***].

9.4.3.1 Xencor will have the first right to institute infringement suits or take other actions directed to a Product Infringement of [***], including defense of a declaratory judgment action with respect to a potential Product Infringement. Xencor will have the right to institute such suit or other appropriate action in the name of Xencor or of Janssen, or in the names of both of them. Janssen will cooperate fully with Xencor in its efforts to protect such Patents and will agree to be a party in any suit, if required, at Xencor's sole expense. Xencor will notify and keep Janssen apprised in writing of such action and will consider and take into account Janssen's reasonable interests and requests regarding such action.

9.4.3.2 If Xencor does not institute or undertake an action in accordance with Section 9.4.3.1 for a period of [***] after being requested by Janssen to do so, or (if sooner) at least [***] prior to the last date such action may be brought, then Janssen may institute or undertake and thereafter control such action, in the name of Xencor or of Janssen or in the names of both of them. Janssen will cooperate fully with Xencor in its efforts to protect such Patents and will agree to be a party in any suit, if required, at Janssen's sole expense.

9.4.4 Conduct of Patent Litigation under the Biologics Price Competition and Innovation Act. If either Party receives a copy of an application submitted to the FDA under subsection (k) of Section 351 of the PHSA or equivalent in any other jurisdiction pertaining to and naming a Licensed Product as a reference product (a "**Biosimilar Application**") or otherwise becomes aware that such a Biosimilar Application has been filed (such as in an instance described in Section 351(l)(9)(C) of the PHSA), such Party will, within [***] Business Days, notify the other Party so that the other Party may seek permission to view the application and related confidential information from the filer of the Biosimilar Application under Section 351(l)(1)(B)(iii) of the PHSA or equivalent in any other jurisdiction. If either Party receives any equivalent or similar certification or notice in any other jurisdiction, such Party will, within [***], notify and provide the other Party with copies of such communication. Regardless of the Party that is the "reference product sponsor" for purposes of such Biosimilar Application, Janssen will have the sole right, but not the obligation, to initiate an Infringement Action against the filer of the Biosimilar Application to enforce any [***], including whether or not to utilize, in whole or in part, the procedures provided in Section 351 of the PHSA or equivalent in any other jurisdiction. If Janssen institutes any such Infringement Action, then Xencor will join as a party to such claim, suit or proceeding requiring it as a party at Xencor's sole cost and expense. With respect to a [***] and to the extent the action is under this Section, Xencor will determine whether any infringement suit or other action will be initiated, and if so, which Party will have the right to initiate and undertake such action and other matters pertaining to such action.

9.4.5 Cooperation. In any Infringement Action brought under this Section 9.4 in any jurisdiction, each Party will reasonably cooperate with each other, in good faith, relative to the other Party's efforts to protect the applicable Patents and will agree to be a party to such Infringement Action, if necessary. Notwithstanding anything to the contrary in this Section 9.4, neither Party will settle or compromise any related defense or infringement suit brought under the [***] pursuant to this Section 9.4 without the prior written consent of the other Party, which consent will not be unreasonably withheld. Furthermore, each Party will provide the other Party with reasonable prior notice and opportunity to review and comment, and will consider in good faith all reasonable comments from the other Party on, any proposed arguments asserted or to be asserted in any enforcement action under this Section 9.4.

9.4.6 Recoveries. With respect to any Infringement Action or other action against a Product Infringement initiated pursuant to this Section 9.4, any recovery obtained as a result of any such proceeding, by settlement or otherwise, will be applied in the following order of priority:

(a) first, the Parties will be reimbursed for all out-of-pocket expenses incurred by the Parties in connection with such Infringement Action or other action and not otherwise recovered (which reimbursement will be made proportionally if such recovery is less than the total of such out-of-pocket expenses); and

(b) any remainder will be (i) [***] if recovered by Janssen and (ii) if recovered by Xencor, allocated [***].

9.4.7 Upstream Limitations. Each Party's rights to enforce or defend a Xencor Patent, Xencor Research Patent, or Joint Patent against a Product Infringement pursuant to this Section 9.4 will be subject to the applicable provisions of any agreements between the Party controlling such Patents and its licensor.

9.4.8 Other Enforcement of Xencor Patents, Janssen Patents and Joint Patents. As between the Parties, Xencor will have the sole right, in its sole discretion, to enforce any [***] against any infringement that is not a Product Infringement and to retain all related recoveries, and Janssen will have the sole right, in its sole discretion, to enforce any Janssen Patent against any infringement that is not a Product Infringement and to retain all related recoveries. If there is any infringement of any Joint Patent that is not a [***], then each Party will have the right to enforce such Joint Patent at its sole expense.

9.5 Patent Term Extensions. Janssen will have the sole discretion, after consultation with Xencor, to determine which [***], if any, are extended with respect to any Licensed Product pursuant to the U.S. Drug Price Competition and Patent Term Restoration Act of 1984, the Supplementary Certificate of Protection of Member States of the EU and other similar measures in other jurisdictions worldwide. Upon Janssen's request, the Parties will discuss whether any [***] will be extended with respect to any Licensed Product, which extension may be made only with Xencor's written consent. Xencor and Janssen will each cooperate and use reasonable efforts to gain any such patent term extension permitted under this Section 9.5. All filings for such extensions will be made by the Party responsible for the Prosecution of such Patents.

9.6 Regulatory Data Protection. To the extent required by or permitted by Law, Xencor and Janssen will each cooperate with one another and will use Diligent Efforts to promptly, accurately and completely list, with the applicable Regulatory Authorities during the Term, all applicable Licensed Products that Janssen intends to, or has begun to, Commercialize and that, in case of the United States, have become the subject of an application for a Marketing Approval submitted to FDA, such listings to include all so called "**Purple Book**" listings of biologic products by both the Center for Drug Evaluation and Research (CDER) and Center for Biologics Evaluation and Research (CBER) required under section 351(a) of the PHSA and any foreign equivalent, and will cooperate and use Diligent Efforts to secure all applicable exclusivity protection available as a Biologic Reference Product under the Purple Book.

9.7 Patent Invalidity Claims.

9.7.1 Right to Respond. If during the Term a Third Party initiates a patent opposition, reexamination, or other proceeding in the US Patent Office, European Patent Office or foreign equivalent, asserting that [***] are invalid or otherwise unenforceable (an "**Invalidity Claim**"), the Parties will treat this as a Prosecution in accordance with Section 9.3.1 or Section 9.3.3. For the avoidance of doubt, any response to a Third Party declaratory judgment action with respect to [***] claims or a counterclaim of invalidity or unenforceability of such claims made in the context of an Infringement Action, to the extent the same pertains to a potential Product Infringement, will be deemed an Infringement Action and will be governed by Section 9.4.

9.7.2 Invalidity Claims. The non-controlling Party will cooperate with the controlling Party in the preparation and formulation of a response to an Invalidity Claim, and in taking other steps reasonably necessary to respond, to such Invalidity Claim. The controlling Party will have the sole and exclusive right to select counsel for the response to such Invalidity Claim. The non-controlling Party will also have the right to participate and be represented relative to such proceeding by its own counsel at its own expense. The controlling Party will not settle or compromise any Invalidity Claim in a manner that admits the invalidity or unenforceability of any [***], or that requires a payment to the Third Party in respect of such Invalidity Claim, without the consent of the other Party, which consent will not be unreasonably withheld. For clarity, "control" under this Section will mean final decision-making authority regarding Prosecution.

9.8 Claimed Infringement. Each of the Parties will promptly notify the other in the event that any Third Party files any suit or brings any other action alleging patent infringement by Janssen or Xencor with respect to the Exploitation of any Licensed Antibody or a Licensed Product (any such suit or other action referred to herein as an "**Infringement Claim**"). In the event of any Infringement Claim, the Parties will promptly, and within [***] of written notice from either Party to the other thereof, discuss which Party will control the response to such Infringement Claim, and if the Parties do not mutually agree upon which Party will control, then Janssen will have the right to control the defense of such Infringement Claim. Upon the request of the Party controlling the response to the Infringement Claim, the other Party will reasonably cooperate with the controlling Party at the controlling Party's expense in the reasonable defense of such Infringement Claim. The other Party will have the right to consult with the controlling Party concerning any Infringement Claim and to participate in and be represented by independent counsel in any associated litigation at its own expense. The damages or recovery obtained by the Third Party asserting such Infringement Claim will be paid by Janssen. Notwithstanding the foregoing, (i) no settlement will be entered into, or accepted, without the prior written consent of the other Party if such settlement would materially adversely affect the rights and benefits of, or impose or adversely affect any obligations on, such other Party, which consent will not unreasonably be withheld, delayed or conditioned, and (ii) the Parties' rights and obligations under this Section 9.8 will be subject to ARTICLE 12, if applicable.

9.9 Acquirer Intellectual Property.

9.9.1 If Xencor undergoes a Change of Control, all Xencor Research Intellectual Property and Xencor Intellectual Property Controlled by Xencor immediately before the consummation of the Change of Control shall continue to be Xencor Research Intellectual Property or Xencor Intellectual Property, as applicable, for purposes of this Agreement. "**Acquirer Intellectual Property**" means any Patents or Know-How Controlled by the Acquirer (or any other Affiliate of Xencor that becomes an Affiliate through any Change of Control of Xencor) that were Controlled by the Acquirer or such other Affiliate (and not Xencor) immediately prior to such Change of Control (other than as a result of a license or other grant of rights, covenant or assignment by Xencor or its other Affiliates to, or for the benefit of, the Acquirer or such Affiliate). For purposes of this Section 9.9.1, references in the definition of "Control" to "a Party" will be deemed to include the Acquirer and its Affiliates.

9.9.2 Notwithstanding anything to the contrary in this Agreement, Xencor Research Intellectual Property and Xencor Intellectual Property shall not be deemed to include (and Xencor and its Affiliates shall not be deemed to Control) any Acquirer Intellectual Property unless and solely to the extent such Acquirer Intellectual Property is used by Xencor or the Acquirer, or any of their respective Affiliates, to Research any Primary Antibody. Xencor will notify Janssen in advance before using any Acquirer Intellectual Property to Exploit any Licensed Antibody or Licensed Product under this Agreement.

9.10 Trademarks. Janssen shall have the sole and exclusive right to, in its sole discretion, develop and select (and conduct clearance searches for) the trademark(s) used to brand the Licensed Products in the Territory, which may vary by country or within a country (the "**Product Marks**"). For clarity, Product Marks do not include any corporate names and logos of Janssen. As between the Parties, Janssen shall own all rights in the Product Marks and shall register and maintain, in its sole discretion and at its own cost and expense, the Product Marks in the countries and regions in the Territory that it determines to be appropriate. Janssen shall have the sole right, in its discretion and at its expense, to defend and enforce the Product Marks.

ARTICLE 10
CONFIDENTIALITY AND PUBLICITY

10.1 Non-Disclosure and Non-Use.

10.1.1 During the Term and [***], the Party (the "**Receiving Party**") receiving or otherwise in possession of Confidential Information of the other Party (the "**Disclosing Party**") will: (a) maintain in confidence such Confidential Information using not less than the efforts such Receiving Party uses to maintain in confidence its own confidential or proprietary information of similar kind and value (but no less than reasonable efforts); (b) not disclose such Confidential Information to any Third Party without the prior written consent of the Disclosing Party, except for disclosures expressly permitted in Sections 10.3 and 10.4; and (c) not use such Confidential Information for any purpose except those permitted by this Agreement or internal management and operations directly related to this Agreement (it being understood that this ARTICLE 10 does not create or imply any rights or licenses not expressly granted under this Agreement).

10.1.2 "**Confidential Information**" means all non-public or proprietary information (a) disclosed orally, visually, in writing or other form by or on behalf of a Party (or an Affiliate or representative of such Party) to the other Party (or to an Affiliate or representative of such Party) pursuant to or in connection with this Agreement, whether prior to, on or after the Execution Date or (b) expressly designated as Confidential Information of a Party under another provision of this Agreement.

10.1.3 Any Know-How that is a Janssen Assigned Invention will be deemed the Confidential Information of Xencor only.

10.1.4 Any data or non-public information relating to the Licensed Antibodies generated by either Party in the performance of the Research Program activities under this Agreement

("**Research Program Results**") is deemed to be the Confidential Information of both Parties during the Term. After the Term, (a) all Research Program Results generated by Xencor shall be deemed the Confidential Information of Xencor (and not Janssen), and (b) all Research Program Results generated by Janssen shall be deemed the Confidential Information of Janssen (and not Xencor), subject to the license granted to Xencor by Janssen under Section 13.6.2.2.

10.2 Exceptions. The obligations in Section 10.1 will not apply to the extent of any portion of the Confidential Information that the Receiving Party can show by competent written evidence:

(a) is publicly disclosed by the Disclosing Party, either before or after it is disclosed to the Receiving Party under this Agreement;

(b) was known to the Receiving Party or any of its Affiliates, without any obligation to the Disclosing Party to keep it confidential or any restriction on its use, before disclosure to the Receiving Party or any of its Affiliates by the Disclosing Party;

(c) is subsequently disclosed to the Receiving Party or any of its Affiliates on a non-confidential basis by a Third Party that, to the Receiving Party's knowledge after due inquiry, is not bound by a duty of confidentiality to the Disclosing Party or restriction on its use;

(d) is now, or hereafter becomes, through no act or failure to act on the part of the Receiving Party or any of its Affiliates in violation of this Agreement, generally known or available, either before or after it is disclosed to the Receiving Party by the Disclosing Party; or

(e) is independently discovered or created by or on behalf of the Receiving Party or any of its Affiliates without the use of or reference to the Confidential Information of the Disclosing Party.

10.3 Authorized Disclosure. The Receiving Party may disclose Confidential Information of the Disclosing Party only to the extent such disclosure is reasonably necessary in the following instances:

(a) filing, prosecuting, maintaining, enforcing or defending Patents as permitted by this Agreement;

(b) as reasonably required in generating regulatory documentation (including INDs/CTAs and Drug Approval Applications) and filing for and obtaining regulatory licenses as permitted by this Agreement;

(c) prosecuting or defending litigation, including responding to a subpoena in a Third Party litigation;

(d) subject to Section 10.4, complying with applicable Law (including regulations promulgated by securities exchanges) or court or administrative orders, including as a result of any actions taken by a Party not in violation of this Agreement;

(e) complying with any obligation under this Agreement, or as otherwise expressly permitted under Section 5.2.4.1 or Section 7.6.2.2; or

(f) to its Affiliates and existing or prospective (sub)licensees, subcontractors, consultants, agents and advisors to the extent reasonably necessary for the Receiving Party to exercise its rights or fulfill its obligations under this Agreement or to a prospective Acquirer or sub(licensee) in connection with bona fide due diligence, each of whom before disclosure must be bound by obligations of confidentiality and restrictions on use of such Confidential Information that are no less restrictive than the obligations in this ARTICLE 10, provided that the Receiving Party will remain responsible for any violation of such confidentiality provisions by any Person who receives Confidential Information pursuant to this Section 10.3(f) and provided further that Xencor may not disclose any Confidential Information of Janssen to a prospective Acquirer unless and until such Third Party has provided Xencor with a written proposal for a Change of Control transaction (including financial compensation) and Xencor's board of directors has determined (or is considering whether) to pursue negotiations with such prospective Acquirer with respect to such proposal.

If and whenever any Confidential Information is disclosed in accordance with this Section 10.3, such disclosure will not cause such information to cease to be Confidential Information for purposes of this Agreement, except to the extent that such disclosure results in a public disclosure of such information (other than by breach of this Agreement). Notwithstanding the foregoing, if a Party intends to make a disclosure of the other Party's Confidential Information pursuant to Section 10.3(c) or Section 10.3(d), it will, except where impracticable or not legally permitted, give [***] advance notice (or, if [***] notice is not possible under the circumstances, reasonable advance notice) to the other Party of such disclosure and use not less than the same efforts to secure confidential treatment of such information as it would to protect its own confidential information from disclosure (but no less than reasonable efforts).

10.4 Terms of Agreement. This Agreement and all of the terms of this Agreement will be treated as Confidential Information of each Party. In addition to the disclosures permitted under Section 10.3, either Party may disclose the terms of this Agreement and other information relating to this Agreement or the transactions contemplated by this Agreement to the extent required, in the reasonable opinion of such Party's counsel, to comply with the rules and regulations promulgated by the United States Securities and Exchange Commission or the Nasdaq Stock Market or similar security regulatory authorities or stock market in other countries, including as a result of any actions taken by a Party not in violation of this Agreement. If a Party intends to disclose this Agreement or any of its terms or other such information in accordance with this Section 10.4, such Party will, except where impracticable or not legally permitted, give reasonable advance notice to the other Party of such disclosure and seek confidential treatment of portions of this Agreement or such terms or information, as may be reasonably requested by the other Party in a timely manner.

10.5 Publicity.

10.5.1 Initial Press Release. Each Party may, but is not obligated to, make a public announcement of the execution of this Agreement in the form attached as Exhibit 10.5.1 to this Agreement, which will be issued at a time to be mutually agreed by the Parties no later than one Business Day after the Execution Date.

10.5.2 Further Publicity. Except as required to comply with applicable Law or as permitted by Section 10.3, 10.4 or 10.5.1, if either Party intends to issue any press release or make other public statement disclosing any information relating to this Agreement, it will give the other Party a reasonable opportunity to review and comment and will consider any such comments in good faith. In addition, such Party will not issue such press release or public statement without the prior written consent of the other Party, such consent not to be unreasonably withheld, conditioned or delayed. If a Party intends to issue such a press release or other public statement as required to comply with applicable Law, such Party will, except where impracticable or not legally permitted, give reasonable advance notice to the other Party of such disclosure. Notwithstanding the foregoing, once information relating this Agreement has been publicly disclosed as permitted under this Agreement, neither Party is required to obtain the other Party's consent or provide notice of its further public disclosure, provided that such information remains accurate and not misleading in all material respects at the time of such further public disclosure.

10.6 Prior Non-Disclosure Agreement. As of the Execution Date, the terms of this ARTICLE 10 supersede the Mutual Confidentiality Disclosure Agreement by and between Janssen Research & Development, LLC ("**JRD**") and Xencor, [***]. Any information disclosed pursuant to such agreement that was deemed "Confidential Information" under such agreement is deemed to be Confidential Information under this Agreement.

10.7 Equitable Relief. Given the nature of the Confidential Information and the competitive damage that may result to a Party upon unauthorized disclosure, use or transfer of its Confidential Information to any Third Party, the Parties agree that monetary damages may not be a sufficient remedy for any breach of this ARTICLE 10. In addition to all other remedies, a Party is entitled to seek specific performance and injunctive and other equitable relief as a remedy for any breach or threatened breach of this.

10.8 Publications.

10.8.1 Either Party may publish or present results of any Clinical Study conducted by such Party relating to a Licensed Product in journals or at conferences, subject to the prior review and comment by the other Party as set forth in Section 10.8.2. The Party who conducted a Clinical Study is responsible for registering such Clinical Study in the appropriate clinical study registry and reporting Clinical Study results as may be required under applicable Law.

10.8.2 The publishing Party will provide the non-publishing Party with the opportunity to review any such proposed abstract, manuscript or presentation by delivering a copy of it to the non-publishing Party no less than [***] before its intended submission for publication or presentation. The non-publishing Party will have [***] of its receipt of any such abstract,

manuscript or presentation to comment, and the publishing Party will consider in good faith such non-publishing Party's comments in such abstract, manuscript or presentation. If the non-publishing Party objects to the disclosure in writing within the applicable review period, the publishing Party must delete from the proposed disclosure any of the non-publishing Party's Confidential Information upon the request of the non-publishing Party. In the event of concern over patent protection, the publishing Party may not submit such publication or make such presentation containing such information until the non-publishing Party is given a reasonable period of time, and in no event less than [***] days, to seek patent protection for any material in such publication or presentation which it believes is patentable, unless the publishing Party reasonably determines that publication of such information is required by applicable Law.

ARTICLE 11
REPRESENTATIONS AND WARRANTIES; CERTAIN COVENANTS

11.1 Representations of Authority. Xencor and Janssen each represents and warrants to the other Party that, as of the Execution Date, it has full corporate right, power and authority to enter into this Agreement and to perform its respective obligations under this Agreement and that it has the right to grant to the other the licenses and sublicenses granted pursuant to this Agreement.

11.2 Consents. Xencor and Janssen each represents and warrants to the other Party that, except for any regulatory licenses, pricing or reimbursement approvals, manufacturing approvals or similar approvals necessary for the Exploitation of the Licensed Antibodies and Licensed Products, all necessary consents, approvals and authorizations of all government authorities and other persons required to be obtained by it as of the Execution Date in connection with the execution, delivery and performance of this Agreement (as contemplated as of the Execution Date) have been obtained by the Execution Date, except for those required under the HSR Act or that would not, individually or in the aggregate, be reasonably expected to have a material adverse effect on the Exploitation of the Licensed Antibodies and Licensed Products.

11.3 No Conflict. Xencor and Janssen each represents and warrants to the other Party that, notwithstanding anything to the contrary in this Agreement, the execution and delivery of this Agreement by such Party, the performance of such Party's obligations under this Agreement (as contemplated as of the Execution Date) and the licenses and sublicenses to be granted by such Party pursuant to this Agreement (i) do not conflict with or violate with such Party's organizational documents or any requirement of Laws existing as of the Execution Date and applicable to such Party and (ii) do not conflict with, violate, breach or constitute a default under any contractual obligations of such Party or any of its Affiliates existing as of the Execution Date, except, in each case, for those conflicts, violations, breaches or defaults that would not, individually or in the aggregate, be reasonably expected to have a material adverse effect on the Exploitation of the Licensed Antibodies and Licensed Products.

11.4 Enforceability. Xencor and Janssen each represents and warrants to the other Party that, as of the Execution Date, this Agreement is a legal and valid obligation binding upon it and is enforceable against it in accordance with its terms, except as such enforcement may be

limited by bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium and other Laws affecting the rights of creditors generally and general equitable principles (whether considered in a proceeding in equity or at law).

11.5 Additional Representations and Warranties of Xencor. Xencor represents and warrants to Janssen that, as of the Execution Date:

11.5.1 Except for [***], neither Xencor nor any of its Affiliates is party to any license agreement with a Third Party in effect on the Execution Date pursuant to which Xencor (or their respective Affiliates) is obligated to pay any amount to such Third Party to practice the Xencor Research Patents or Xencor Patents that Cover Specified Xencor Know-How, or any Specified Xencor Know-How that relates to the Xencor Binding Domains, with respect to Xencor's (or their respective Affiliates') Exploitation of Licensed Antibodies and Licensed Products pursuant to this Agreement.

11.5.2 Except for [***], to the knowledge of Xencor, Xencor exclusively owns all Xencor Research Patents and Xencor Patents that Cover Specified Xencor Know-How, licensed to Janssen hereunder that exists on the Execution Date (the "**Existing Xencor Intellectual Property**"). Except for [***], no Xencor Research Patents or Xencor Patents that relate to the Xencor Binding Domains licensed to Janssen hereunder are licensed to Xencor by a Third Party. Except for [***], Xencor is the exclusive owner of all Patents set forth in Schedule 11.5.10. There are no agreements with any Third Party pursuant to which Xencor has licensed to Third Parties rights with respect to the Licensed Antibodies or Licensed Products. With respect to the inventions related to the CD28 Binding Domains set forth on Schedule 11.5.2 (the "**Xencor CD28 Inventions**"): (a) none of the Xencor CD28 Inventions are licensed to Xencor by a Third Party; (b) Xencor has not disclosed any sequence of any Xencor CD28 Invention to any Third Party; and (c) there are no agreements with any Third Party pursuant to which Xencor has licensed to such Third Party rights with respect to any of the Xencor CD28 Inventions.

11.5.3 Xencor has all rights necessary to grant the licenses under the Xencor Research Intellectual Property and Xencor Intellectual Property that it grants to Janssen in this Agreement.

11.5.4 Xencor has not previously licensed, assigned, transferred, or otherwise conveyed to any Third Party any right, title or interest in, to or under the Existing Xencor Intellectual Property in any way that would legally conflict with the licenses and rights granted to Janssen under this Agreement. Xencor has not previously otherwise granted any rights to any Third Party in any way that would legally conflict with the licenses and rights granted to Janssen under this Agreement.

11.5.5 Xencor has not entered into any agreement that would create a lien, charge or encumbrance with respect to the Xencor Research Patents or Xencor Patents, and the Xencor Research Patents and Xencor Patents are free and clear of any liens, charges and encumbrances, in either case that would conflict with the license grants to Janssen under this Agreement. For clarity, a license granted by Xencor to a Third Party does not constitute an "encumbrance" for purposes of this Section 11.5.5.

11.5.6 To the knowledge of Xencor, neither Xencor nor any of its Affiliates or their respective current or former employees has misappropriated any of (i) the Know-How necessary or used by Xencor for the Exploitation of the Licensed Antibodies and Licensed Products by Xencor as of the Execution Date, or (ii) the Xencor Research Know-How, in each case from any Third Party, and Xencor is not aware of any claim by a Third Party that such misappropriation has occurred.

11.5.7 Xencor has not received any written notice of any existing or threatened actions, suits or other proceedings pending against it with respect to the Xencor Research Intellectual Property or Xencor Intellectual Property (other than patent office actions or the actions of any Regulatory Authority) that have not already been disclosed to Janssen.

11.5.8 Except as already disclosed, Xencor has not received written notice from a Third Party claiming that a patent owned by such Third Party would be infringed by the manufacture, use, sale, offer for sale or import of the Licensed Antibodies or Licensed Products in the Territory, and no Third Party has threatened in writing to make any such claim.

11.5.9 To the knowledge of Xencor, the use, practice or application by Xencor or Janssen (or their respective Affiliates or sublicensees) of any Specified Xencor Know-How that relates to the Xencor Binding Domains as contemplated under the Research Plan would not misappropriate the intellectual property of any Third Party. To the knowledge of Xencor, the use, practice or application by Xencor or Janssen (or their respective Affiliates or sublicensees) of any Xencor CD28 Invention would not infringe any claim of an issued and unexpired patent of any Third Party.

11.5.10 The Patents listed in Schedule 11.5.10 represent all Patents that are existing as of the Execution Date that Xencor or any of its Affiliates owns or Controls that Cover or first disclose in a Patent any invention Controlled by Xencor that Xencor reasonably believes may Cover a Primary Antibody. Xencor: (i) is not aware of any claim made against it asserting the invalidity, misuse, unregisterability, unenforceability or non-infringement of any of such listed Patents other than patent office actions or the actions of any Regulatory Authority and; and (ii) is not aware of any claim made against it challenging Xencor's Control of such listed Patents or making any adverse claim of ownership of the rights of Xencor to such listed Patents.

11.5.11 Xencor has not prepared, filed or obtained any INDs/CTAs, Drug Approval Applications or any other regulatory documentation or regulatory licenses for any Licensed Antibodies or Licensed Products in any jurisdiction.

11.5.12 Xencor has conducted, and has used reasonable efforts to cause its contractors and consultants to conduct, the Research, Development and Manufacture of the Licensed Antibodies and Licensed Products in accordance in all material respects with applicable Law, including as applicable GCP and GLP.

11.5.13 Neither Xencor nor any of its Affiliates has conducted (or had a Third Party conduct on its behalf) before the Execution Date any Research, Development or Manufacture of any Antibody that comprises a Target Prostate Antigen Binding Domain and a

CD28 Binding Domain or any product that contains such an Antibody, except to the extent that Xencor disclosed such Antibodies to Janssen before the Execution Date. Xencor has made available to Janssen all material information in Xencor's or its Affiliate's Control relating to its activities concerning such Antibodies.

11.5.14 There is no claim, action, suit, arbitration, inquiry, audit or investigation by or before any Governmental Authority pending or, to the knowledge of Xencor, threatened against Xencor or involving any of the Licensed Antibodies or Licensed Products. There is no award, stay, writ, judgement, injunction, decree or similar order of any Governmental Authority outstanding, or to Xencor's knowledge pending, involving Xencor or any of the Licensed Antibodies or Licensed Products. No clinical trial of any Licensed Product has been conducted by or on behalf of Xencor.

11.5.15 Neither Xencor nor any of its Affiliates is or has been a party to any agreement with a Governmental Authority pursuant to which such Governmental Authority provided or may provide funding for the Development of any Licensed Antibody or Licensed Product. None of the Xencor Research Patents, Xencor Patents or Xencor Research Know-How are or include any invention that was conceived or first actually reduced to practice in the performance of work under a funding agreement between Xencor and the U.S. government.

11.6 No Warranties. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT, NEITHER PARTY MAKES ANY REPRESENTATION OR EXTENDS ANY WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, TO THE OTHER PARTY, AND EACH PARTY HEREBY DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT WITH RESPECT TO THE LICENSED ANTIBODIES AND LICENSED PRODUCTS. EACH PARTY HEREBY DISCLAIMS ANY REPRESENTATION OR WARRANTY THAT THE EXPLOITATION OF THE LICENSED ANTIBODIES AND LICENSED PRODUCTS PURSUANT TO THIS AGREEMENT WILL BE SUCCESSFUL OR THAT ANY PARTICULAR SALES LEVEL WITH RESPECT TO THE LICENSED PRODUCTS WILL BE ACHIEVED.

11.7 No Debarment or Exclusion. Each Party represents and warrants that, as of the Execution Date, neither it nor any of its Affiliates, nor any of their officers, employees or agents has been debarred or is subject to debarment as authorized by Section 306 of the United States Federal Food, Drug, and Cosmetic Act or has been excluded or is subject to exclusion from participation in Government Health Care Programs under 42 U.S.C. § 1320a-7, and neither Party nor any of its Affiliates will use in any capacity, in connection with the Exploitation of the Licensed Antibodies or Licensed Products in the Field, any Person who has been debarred pursuant to Section 306 of the United States Federal Food, Drug, and Cosmetic Act, who is the subject of a conviction described in such section, who has been excluded from participation in Government Health Care Programs under 42 U.S.C. § 1320a-7 or who has been convicted of any crime or engaged in any conduct for which such Person could be excluded from participation in Government Health Care Programs under 42 U.S.C. § 1320a-7. Each Party agrees to inform the other Party in writing immediately if it, any of its officers, employees or

agents, or any Person who is performing services under this Agreement is debarred, is the subject of a conviction described in Section 306 of the United States Federal Food, Drug, and Cosmetic Act, is excluded from participation in Government Health Care Programs under 42 U.S.C. § 1320a-7 or is convicted of any crime for which such Person could be excluded from participation in Government Health Care Programs under 42 U.S.C. § 1320a-7, or if any action, suit, claim, investigation or legal or administrative proceeding is pending or, to the best of such Party's knowledge, is threatened, relating to the debarment, exclusion or conviction of such Party or any Person used in any capacity by such Party or any of its Affiliates in connection with the Exploitation of the Licensed Antibodies or Licensed Products.

11.8 Compliance with Anti-Corruption Laws.

11.8.1 Notwithstanding anything to the contrary in this Agreement, each Party hereby agrees that:

(a) it will not, in the performance of this Agreement, perform any actions that are prohibited by local and other anti-corruption laws (including the provisions of the U.S. Foreign Corrupt Practices Act, collectively "**Anti-Corruption Laws**") that may be applicable to one or both Parties to this Agreement;

(b) it will not, in the performance of this Agreement, directly or indirectly, make any payment, or offer or transfer anything of value, or agree or promise to make any payment or offer or transfer anything of value, to a government official or government employee, to any political party or any candidate for political office or to any other Third Party related to the transaction with the purpose of influencing decisions related to either Party and/or its business in a manner that would violate Anti-Corruption Laws;

(c) if Xencor exercises the Co-Funding Option, Xencor will designate an individual within its organization to receive training from Janssen on Anti-Corruption Laws as well as applicable rules on interactions with health care professionals, as mutually agreed to by the Parties. Such designated individual will then provide such training on Anti-Corruption Laws, using applicable training materials to be provided by Janssen, on at least an annual basis to all persons employed by Xencor who perform any activities under this Agreement and interact with government officials or health care professionals in the normal course of their responsibilities. Upon the Parties' mutual agreement, such training may also be provided directly by Janssen to such employees of Xencor. If Xencor exercises the Co-Funding Option, Xencor and Janssen will each use reasonable efforts to provide such training or training materials to any contractors or subcontractors of such Party engaged to perform activities under this Agreement where such contracted or subcontracted activities include responsibility for, directly or indirectly, interacting with Public Officials. Xencor may fulfill its obligation under the preceding sentence by requesting appropriate materials from Janssen and forwarding such materials, if any, received from Janssen to the applicable contractor or subcontractor. If Xencor is not able to obtain a contractor or subcontractor's agreement to receive such training or materials, Xencor will use reasonable efforts to facilitate an introduction of Janssen to such contractor or subcontractor and not object to reasonable efforts of Janssen to provide such training or materials to the applicable contractor or subcontractor. Any training and materials provided by Janssen does not relieve

Xencor of any obligations it has independent of this Agreement and Xencor will not rely on Janssen's training and materials for any such obligations;

(d) if Xencor exercises the Co-Funding Option, it will, on an annual basis upon request by the other Party, verify in writing that to the best of such Party's knowledge, there have been no violations of Anti-Corruption Laws by such Party or persons employed by or subcontractors used by such Party in the performance of this Agreement, or will provide details of any exception to the foregoing; and

(e) if Xencor exercises the Co-Funding Option, it will maintain records (financial and otherwise) and supporting documentation related to the subject matter of this Agreement in order to document or verify compliance with the provisions of this Section 11.8.1, and upon request of the other Party, up to once per year and upon reasonable advance notice, will provide a Third Party auditor mutually acceptable to the Parties with access to such records for purposes of verifying compliance with the provisions of this Section 11.8.1. Acceptance of a proposed Third Party auditor may not be unreasonably withheld by either Party. It is expressly agreed that the costs related to the Third Party auditor will be fully paid by the Party requesting the audit, and that any auditing activities may not unduly interfere with the normal business operations of Party subject to such auditing activities. The audited Party may require the Third Party auditor to enter into a reasonable confidentiality agreement in connection with such an audit.

11.8.2 Xencor hereby represents and warrants to Janssen that, to its knowledge as of the Execution Date, neither Xencor nor any of its subsidiaries nor any of their Affiliates, directors, officers, employees, distributors, agents, representatives, sales intermediaries or other Third Parties acting on behalf of Xencor or any of its subsidiaries or any of their Affiliates:

(a) has taken any action in violation of any applicable Anti-Corruption Law; or

(b) has corruptly, offered, paid, given, promised to pay or give, or authorized the payment or gift of anything of value, directly or indirectly, to any Public Official (as defined in Section 11.8.4 below), for the purposes of:

(i) influencing any act or decision of any Public Official in his official capacity;

(ii) inducing such Public Official to do or omit to do any act in violation of his lawful duty;

(iii) securing any improper advantage; or

(iv) inducing such Public Official to use his or her influence with a government, governmental entity, or commercial enterprise owned or controlled by any government (including state-owned or controlled veterinary or medical facilities) in obtaining or retaining any business whatsoever.

11.8.3 Xencor hereby represents and warrants to Janssen that, as of the Execution Date, none of the officers, directors, employees of Xencor or of any of its subsidiaries acting on behalf of Xencor or any of its subsidiaries, in each case that are employed or reside outside the United States, are themselves Public Officials.

11.8.4 For purposes of this Section 11.8, "**Public Official**" means:

(a) any officer, employee or representative of any regional, federal, state, provincial, county or municipal government or government department, agency or other division;

(b) any officer, employee or representative of any commercial enterprise that is owned or controlled by a government, including any state-owned or controlled veterinary or medical facility;

(c) any officer, employee or representative of any public international organization, such as the African Union, the International Monetary Fund, the United Nations or the World Bank; and

(d) any person acting in an official capacity for any government or government entity, enterprise or organization identified above.

11.9 Additional Third Party Technology. Xencor shall obtain Janssen's written consent prior to making, identifying, and characterizing any Primary Antibody that cannot be Exploited without Know-How Controlled by Xencor or its Affiliates (or Patents that Cover such Know-How) that is licensed to Xencor (other than pursuant to [***]).

11.10 [***]**.** [***] are Controlled by Xencor as of the Execution Date. Janssen acknowledges that Xencor's license to [***] is non-exclusive. Accordingly, notwithstanding anything to the contrary in this Agreement, all rights and licenses granted to Janssen under this Agreement with respect to the [***] are non-exclusive. Any amounts due to [***] or any other Third Party under the [***] shall be the sole responsibility of Xencor. With respect to the [***], Xencor will:

(a) use Diligent Efforts to maintain in full force and effect such agreement (in accordance with its terms) and keep Janssen fully informed of any material development pertaining thereto for so long as the [***] are sublicensed to Janssen in accordance with Section 8.1;

(b) not take any action to terminate, modify, amend, waive any right, to the extent incompatible with the rights sublicensed to Janssen in accordance with Section 8.1;

(c) not fail to enforce any right, knowingly breach or otherwise take any other action with respect to the [***] that would reasonably be expected to materially impact the rights granted to Janssen under this Agreement, without the consent of Janssen;

(d) comply in all material respects with the terms of the [***];

(e) make all payments that become due under the [***] in accordance with the terms of the [***];

(f) if Xencor or any of its Affiliates receives written notice claiming that Xencor or any of its Affiliates has breached or defaulted under, or is in breach of or default under, its obligations under the [***], provide a copy thereof to Janssen promptly after receipt and, following consultation with Janssen, consider Janssen's input in good faith and take such actions as may be reasonably necessary to cure any breach or default; and

(g) take all actions reasonably requested by Janssen to provide Janssen with the rights and/or benefits available to Xencor or Janssen as a sublicensee under the [***] with respect to the [***].

ARTICLE 12
INDEMNIFICATION; INSURANCE

12.1 Indemnification by Janssen. Janssen will indemnify, defend and hold harmless Xencor and its Affiliates, and their respective officers, directors, employees, agents, sublicensees, and their respective successors, heirs and assigns and representatives (the "**Xencor Indemnitees**"), from and against any and all claims, threatened claims, damages, losses, suits, proceedings, liabilities, costs (including reasonable legal expenses, reasonable costs of litigation and reasonable attorney's fees) or judgments, whether for money or equitable relief, of any kind brought by a Third Party or Governmental Authority (collectively, "**Losses**"), to the extent arising out of or relating to:

(a) the gross negligence, intentional misconduct of or violation of Law by Janssen, its Affiliates, or its sublicensees and its or their respective directors, officers, employees and agents;

(b) any breach of, or inaccuracy in, any representation or warranty made by Janssen in this Agreement, or any breach or violation of any covenant or agreement of Janssen in or pursuant to this Agreement;

(c) the Exploitation of any Licensed Antibody or Licensed Product by or for Janssen or any of its Affiliates, sublicensees, agents and contractors; or

(d) the conduct of any Independent Prostate Combination Regimen Study by or for Janssen or any of its Affiliates, agents and contractors;

except, in each case, to the extent such Losses arise out of or relate to the negligence of Xencor or any of the other Xencor Indemnitees or to the extent otherwise arising out of or relating to clause (a) or clause (b) of Section 12.2.

12.2 Indemnification by Xencor. Xencor will indemnify, defend and hold harmless Janssen and its Affiliates, and their respective officers, directors, employees, agents, sublicensees, and

their respective successors, heirs and assigns and representatives (the "**Janssen Indemnitees**"), from and against any and all Losses, to the extent arising out of or relating to:

(a) the gross negligence, intentional misconduct of or violation of Law by Xencor, its Affiliates, or its sublicensees and its or their respective directors, officers, employees and agents;

(b) any breach of, or inaccuracy in, any representation or warranty made by Xencor in this Agreement, or any breach or violation of any covenant or agreement of Xencor in or pursuant to this Agreement;

(c) the Research of any Primary Antibody by or for Xencor or any of its Affiliates, sublicensees, agents and contractors (but not including Losses relating to intellectual property infringement or the subsequent Exploitation of any Licensed Antibody or Licensed Product arising out of or relating to such Research by or for Janssen or any of its Affiliates, sublicensees, agents and contractors);

(d) the Detailing of any Licensed Product by or for Xencor or any of its Affiliates, sublicensees, agents and contractors; or

(e) the conduct of any Independent Prostate Combination Regimen Study by or for Xencor or any of its Affiliates, agents and contractors;

except, in each case, to the extent such Losses arise out of or relate to the negligence of Janssen or any of the other Janssen Indemnitees or to the extent otherwise arising out of or relating to clause (a) or clause (b) of Section 12.1.

12.3 Indemnification Procedures.

12.3.1 Indemnification Claims. A claim to which indemnification applies under Section 12.1 or Section 12.2 will be referred to as an "**Indemnification Claim**".

12.3.2 Notice. If any Person or Persons (collectively, the "**Indemnitee**") intends to claim indemnification under this ARTICLE 12, the Indemnitee will notify the other Party (the "**Indemnitor**") in writing promptly upon becoming aware of any claim that may be an Indemnification Claim; provided, however, that failure of the Indemnitee to give such notice will not relieve the Indemnitor of its indemnification obligation under this ARTICLE 12, except and only to the extent that the Indemnitor is actually prejudiced as a result of such failure to give notice. Each claim notice will describe in reasonable detail the basis for such claim (the "**Claim Basis**") and specify the amount or the estimated amount of Losses actually incurred or paid by the Indemnitee as a result of the Claim Basis, to the extent ascertainable.

12.3.3 Defense of Indemnification Claims. By delivering notice to the Indemnitee within [***] after delivery of notice described in Section 12.3.2, the Indemnitor may assume and control, with the sole power to direct, the defense of the Indemnification Claim at its own expense with counsel selected by the Indemnitor and reasonably acceptable to the Indemnitee. If the Indemnitor does not assume control of the defense of the Indemnification Claim as described

in this Section 12.3.3, the Indemnitee will control such defense at Indemnitor's expense (subject to Sections 12.1 and 12.2). The Party not controlling such defense may participate therein at its own expense. The Party controlling the defense of an Indemnification Claim will keep the other Party advised of the status of such Indemnification Claim and the defense thereof and will reasonably consider recommendations made by the other Party with respect thereto. The other Party will cooperate fully with the Party controlling such defense and will make available all pertinent information under its control, which information will be subject to ARTICLE 10, and cause its employees to be available in a deposition, hearing or trial.

12.3.4 Resolution of Indemnification Claims. Neither the Indemnitor nor the Indemnitee will admit fault on behalf of the other Party without the written consent of such other Party. The Indemnitee will not settle or compromise an Indemnification Claim without the prior written consent of the Indemnitor. The Indemnitor will not settle or compromise an Indemnification Claim or consent to any judgment in respect thereof that does not include a complete and unconditional release of the Indemnitee from all liability with respect thereto or that imposes any liability or obligation on the Indemnitee for which the Indemnitee is not indemnified under this Agreement, without the prior written consent of the Indemnitee.

12.4 Insurance. Each Party will acquire and maintain, at its own expense, insurance or self-insurance, as reasonably necessary to cover its own product liability and its obligations under this Agreement. Within [***] days following written request from the other Party, each Party will furnish to such other Party a certificate of insurance evidencing such coverage.

ARTICLE 13
TERM AND TERMINATION

13.1 Term. Unless terminated earlier in accordance with this ARTICLE 13, this Agreement will remain in force for the period commencing on the Execution Date and ending, on a country-by-country basis and Licensed Product-by-Licensed Product basis, upon the expiration of the Royalty Term in such country for such Licensed Product (the "**Term**"). The following provisions will become effective on the Execution Date: ARTICLE 1 (Definitions), ARTICLE 10 (Confidentiality and Publicity), ARTICLE 11 (Representations and Warranties; Certain Covenants), ARTICLE 14 (Efforts to Obtain Clearances), ARTICLE 15 (Dispute Resolution), ARTICLE 16 (Miscellaneous) and this Section 13.1 (Term), Section 13.2 (Termination for Material Breach), Section 13.5 (Provisions for Insolvency), Section 13.6.1.2, Section 13.6.4 (Non-Exclusive Remedy) and Section 13.6.5 (Survival) (with respect to any provisions that become effective on the Execution Date). All other provisions of this Agreement will not become effective until the Effective Date.

13.2 Termination for Material Breach.

13.2.1 Right to Terminate for Material Breach. Either Party (the "**Non-breaching Party**") may terminate this Agreement in its entirety in the event of a material breach of this Agreement by the other Party (the "**Breaching Party**"), by providing [***] prior written notice to the Breaching Party (the "**Cure Period**"). Such notice will reasonably describe the alleged material breach in sufficient detail to put the Breaching Party on notice and clearly state the Non-breaching Party's intent to terminate this Agreement if the alleged breach is not cured within the

Cure Period. Notwithstanding the foregoing: (a) the Cure Period in connection with a material breach of a payment obligation under ARTICLE 7 will be [***]; and (b) if the alleged material breach (other than a payment breach), by its nature, is curable, but is not reasonably curable within the Cure Period, then such Cure Period will be extended if the Breaching Party provides a written plan for curing such breach to the Non-breaching Party and uses Diligent Efforts to cure such breach in accordance with such written plan, provided that no such extension will exceed [***] without the consent of the Non-breaching Party.

13.2.2 Disputes. If the Breaching Party disputes in good faith the existence or materiality of a breach specified in a notice provided by the other Party in accordance with Section 13.2.1, and the Breaching Party provides the other Party notice of such dispute within the Cure Period, then the Non-breaching Party will not have the right to terminate this Agreement under Section 13.2.1 with respect to such alleged breach unless and until (a) the dispute resolution process in ARTICLE 15 has finally determined that the Breaching Party has materially breached this Agreement and (b) the Breaching Party fails to cure such material breach within [***] (or [***] in the case of the breach of a payment obligation) following such final determination. It is understood and agreed that, during the pendency of such dispute, all of the terms and conditions of this Agreement will remain in effect and the Parties will continue to perform all of their respective obligations hereunder.

13.3 Termination by Janssen Without Cause. Janssen may, upon [***] prior written notice to Xencor, terminate this Agreement in its entirety without cause.

13.4 Termination if No Candidate Selection. Xencor may terminate this Agreement, upon [***] prior written notice to Janssen, if Janssen does not notify Xencor of its election to make Candidate Selection within the [***] period described in Section 3.7.2.

13.5 Provisions for Insolvency.

13.5.1 Right to Terminate for Insolvency. Either Party may terminate this Agreement if, at any time, the other Party files in any court or agency pursuant to any statute or regulation of any state or country, a petition in bankruptcy or insolvency or for reorganization or for an arrangement or for the appointment of a receiver or trustee of the Party or of substantially all of its assets, or if the other Party is served with an involuntary petition against it, filed in any insolvency proceeding, and such other Party consents to the involuntary bankruptcy or such petition is not dismissed within [***] after the filing thereof, or if the other Party will propose or be a party to any dissolution or liquidation, or if the other Party will make an assignment of substantially all of its assets for the benefit of creditors (each, an "**Insolvency Event**").

13.5.2 Section 365(n) of the Bankruptcy Code. All rights and licenses now or hereafter granted by Xencor to Janssen under or pursuant to this Agreement, including, for the avoidance of doubt, the licenses granted to Janssen pursuant to Section 8.1, are, for all purposes of Section 365(n) of Title 11 of the United States Code, as amended (such Title 11, the "**Bankruptcy Code**"), licenses of rights to "intellectual property" as defined in the Bankruptcy Code. Upon the occurrence of any Insolvency Event with respect to Xencor, Xencor agrees that Janssen, as licensee of such rights under this Agreement, will retain and may fully exercise all of

its rights and elections under the Bankruptcy Code. Without limiting the generality of the foregoing, Xencor and Janssen intend and agree that any sale of Xencor's assets under Section 363 of the Bankruptcy Code will be subject to Janssen's rights under Section 365(n), that Janssen cannot be compelled to accept a money satisfaction of its interests in the intellectual property licensed pursuant to this Agreement, and that any such sale therefore may not be made to a purchaser "free and clear" of Janssen's rights under this Agreement and Section 365(n) without the express, contemporaneous consent of Janssen. Further, each Party agrees and acknowledges that all payments by Janssen to Xencor hereunder, other than Sales Milestone Payments or Co-Funding Sales Milestone Payments, as applicable, under Section 7.3 and royalty payments under Section 7.4, do not constitute royalties within the meaning of Section 365(n) of the Bankruptcy Code or relate to licenses of intellectual property hereunder. Xencor will, during the Term, create and maintain current copies or, if not amenable to copying, detailed descriptions or other appropriate embodiments, to the extent feasible, of all such intellectual property. Xencor and Janssen acknowledge and agree that "embodiments" of intellectual property within the meaning of Section 365(n) include laboratory notebooks, cell lines, product samples and inventory, research studies and data, regulatory filings and marketing approvals. If (i) a case under the Bankruptcy Code is commenced by or against Xencor, (ii) this Agreement is rejected as provided in the Bankruptcy Code, and (iii) Janssen elects to retain its rights hereunder as provided in Section 365(n) of the Bankruptcy Code, Xencor (in any capacity, including debtor-in-possession) and its successors and assigns (including a trustee) will:

13.5.2.1 provide to Janssen all such intellectual property (including copies of embodiments of such intellectual property) held by Xencor and such successors and assigns, or otherwise available to them, immediately upon Janssen's written request; and

13.5.2.2 not interfere with Janssen's rights under this Agreement, or any agreement supplemental hereto, to such intellectual property (including such embodiments), including any right to obtain such intellectual property (or such embodiments) from another entity, to the extent provided in Section 365(n) of the Bankruptcy Code.

If Xencor or any of its successors or assigns provides to Janssen any of the intellectual property licensed hereunder (or any embodiment thereof) under this Section 13.5.2, Janssen will have the right to perform Xencor's obligations under ARTICLE 3 with respect to such intellectual property, but neither such provision nor such performance by Janssen will release Xencor from liability resulting from rejection of the license or failure to perform such obligations.

13.5.3 Other Rights. All rights, powers and remedies of Janssen provided herein are in addition to and not in substitution for any and all other rights, powers and remedies now or hereafter existing at law or in equity (including the Bankruptcy Code) in the event of the commencement of a case under the Bankruptcy Code with respect to Xencor. The Parties agree that they intend the following rights to extend to the maximum extent permitted by law, and to be enforceable under Bankruptcy Code Section 365(n):

13.5.3.1 the right of access to any intellectual property (including all embodiments thereof) of Xencor, or any Third Party with whom Xencor contracts to perform an obligation of Xencor under this Agreement, and, in the case of the Third Party, which is

necessary for the manufacture, use, sale, import or export of Licensed Antibodies or Licensed Products; and

13.5.3.2 the right to contract directly with any Third Party to complete the contracted work.

13.6 Effects of Termination or Expiration.

13.6.1 Effects of Termination. In the event of termination of this Agreement by either Party pursuant to Section 13.2, 13.3, 13.4 or 13.5, then the following provisions of this Section 13.6.1 will apply upon the effective date of such termination.

13.6.1.1 All licenses and other rights granted to either Party pursuant to this Agreement will terminate, except those expressly stated to survive termination of this Agreement.

13.6.1.2 Each Party will use Diligent Efforts to return or destroy, at the Disclosing Party's election, all Confidential Information of the other Party (provided, however, that the Receiving Party may keep one copy of such Confidential Information subject to an ongoing obligation of confidentiality for archival purposes only), except for any Confidential Information to which the Receiving Party has a continuing right of use. This obligation to return or destroy Confidential Information does not extend to automatically generated computer back-up or archival copies generated in the ordinary course of information system's procedures; provided, however, that except as expressly set out herein, the Receiving Party will not access nor make any use of such copies.

13.6.1.3 Subject to Section 13.6.1, Janssen will wind down any Development, Manufacturing and Commercialization activities with respect to the Licensed Products, as quickly as reasonably practicable, subject to compliance with ethical and legal requirements. Notwithstanding anything to the contrary, none of Janssen's costs incurred in connection with winding down Development shall be considered Shared Development Costs (and Xencor shall have no obligation to be responsible for or share such costs) except: (a) with respect to Clinical Studies to the extent set forth in Section 13.6.2.8; or (b) to the extent Xencor directs Janssen to undertake such wind down activity. Following the date of notice of termination, Janssen will have no obligation to initiate any Clinical Study or to commence any other new Development activities for the Licensed Products.

13.6.2 Right of Reversion. The following provisions of this Section 13.6.1 will apply upon the effective date of termination of this Agreement.

13.6.2.1

(a) "**Applied Janssen Technology**" means [***].

(b) "**Research Clone Banking,**" with respect to a Licensed Antibody, occurs when [***].

(c) "**Reverted Antibody**" means a Licensed Antibody contained in a Reverted Product.

(d) "**Reverted Derivative**" for a Reverted Antibody, means [***].

(e) "**Reverted Variant**" for a Reverted Antibody, means [***].

(f) "**Reverted Product**" means any Licensed Product containing (or that is) a Licensed Antibody for which: [***]. Notwithstanding the foregoing, if a Licensed Product described in the immediately preceding sentence is a Combination Product, a product containing only the Licensed Antibody within such Combination Product shall be deemed a Reverted Product, but the Combination Product shall not be deemed a Reverted Product.

(g) "**Reverted Product Derivative**" means, with respect to a Reverted Product, any product that contains: [***].

13.6.2.2 For each Reverted Product, Janssen hereby grants to Xencor, effective as of the effective date of termination, an exclusive (even as to Janssen), royalty-bearing, non-transferable, perpetual license, with a right to sublicense through multiple tiers, under the Applied Janssen Technology with respect to such Reverted Product, to Exploit such Reverted Product and/or any Reverted Product Derivatives of such Reverted Product in the Field in the Territory; provided, however, that if any Applied Janssen Technology was in-licensed or acquired from a Third Party and is subject to payment or other obligations to such Third Party, Janssen will promptly disclose such obligations to Xencor in writing and such Applied Janssen Technology will be subject to the license granted in this Section only to the extent Xencor agrees in writing to be bound by such obligations and reimburse all amounts owed to such Third Party as a result of Xencor's exercise of such license with respect to such Applied Janssen Technology. Notwithstanding the foregoing, the foregoing license does not include the grant of any rights to Exploit any active ingredient other than the Licensed Antibodies contained in a Reverted Product or Reverted Product Derivative.

13.6.2.3 Xencor will pay to Janssen royalties on Net Sales of the applicable Reverted Product (or corresponding Reverted Product Derivative) at the Reversion Royalty Rate (where references to "Janssen" in the definition of Net Sales will be replaced with "Xencor"). "**Reversion Royalty Rate**" means [***]. Such payments will be made in accordance with the terms set forth in Section 7.4, applied mutatis mutandis with respect to Net Sales of Licensed Products by Xencor, provided that the definition of Royalty Term in Section 7.4.2 will remain the same.

13.6.2.4 Janssen will assign or otherwise transfer to Xencor all regulatory documentation and filings and regulatory approvals (including, without limitation, all INDs/CTAs and Drug Approval Applications and approvals thereof) for the Reverted Product (excluding any portion thereof pertaining to any product that is not the Reverted Product) ("**Regulatory Documentation and Filings**") and copies of all clinical and nonclinical data relating to the Reverted Product Controlled by Janssen or any of its Affiliates or sublicensees. Janssen will, and will procure that its Affiliates and sublicensees will, take such actions and

execute such instruments, assignments and documents as may be reasonably requested by Xencor to effect the transfer of rights under such Regulatory Documentation and Filings to Xencor. If applicable Law prevents or delays the transfer of ownership of any such Regulatory Documentation and Filings to Xencor, Janssen will grant to Xencor an exclusive and irrevocable right of access and reference to such Regulatory Documentation and Filings, and will cooperate with Xencor to make the benefits of such Regulatory Documentation and Filings available to Xencor or its designee(s).

13.6.2.5 Upon request from Xencor, Janssen will deliver to Xencor all safety data contained in the global safety database for the Reverted Product and transfer control of and responsibility for maintaining the global safety database for the Reverted Product to Xencor.

13.6.2.6 Janssen will, at Xencor's request, use Diligent Efforts to facilitate an orderly and prompt transition of any Manufacturing of each Reverted Product that was clinically Developed by or for Janssen or its Affiliates (a "**Clinical Reverted Product**") then being conducted by Janssen and any of its Affiliates or Third Party subcontractors to Xencor or its designee. At Xencor's request, Janssen will supply Xencor or its designee with such Clinical Reverted Product at a price equivalent to the Manufacturing Cost of Clinical Supply, provided that Janssen will not be obligated to continue to supply such Clinical Reverted Product for more than [***] following the effective date of termination. Upon Xencor's request, Janssen will promptly provide Xencor with Janssen's inventory of Reverted Products and Licensed Antibodies with respect thereto at a price equal to [***].

13.6.2.7 If the First Commercial Sale of the Reverted Product has occurred in a country before the effective date of termination of this Agreement, then, if requested by Xencor, Janssen shall continue to Commercialize the Reverted Product in such country in accordance with the terms and conditions of this Agreement, for a period requested by Xencor not to exceed [***] from the effective date of termination of this Agreement. Janssen will be entitled to receive and retain all amounts invoiced on sales of Reverted Product during such period, subject to payment of royalties pursuant to Section 7.4.

13.6.2.8 If, on the date of notice of termination, any Clinical Study of the Reverted Product is ongoing pursuant to the GDP (i.e., first patient has been dosed), then Xencor will notify Janssen in writing within [***] after the date of notice of termination whether Xencor elects to have Janssen either:

(a) wind down such Clinical Study as soon as practicable, subject to compliance with ethical and legal requirements; or

(b) transfer responsibility for and control of such Clinical Study to Xencor as soon as practicable. Janssen will use Diligent Efforts to effect such transfer, and Xencor will use Diligent Efforts to assume responsibility for and control, of such Clinical Study as promptly as practicable after the effective date of termination and, in any event, within [***] following the effective date of termination.

Until the effective date of termination, the costs of such Clinical Study will be shared by the Parties as Shared Development Costs to the extent such costs are to be shared pursuant to Section 6.2.3. After the effective date of termination: (x) costs incurred in the winding down of such Clinical Study in accordance with clause (a) above will be shared by the Parties as Shared Development Costs to the extent such costs are to be shared pursuant to Section 6.2.3; and (y) costs incurred to conduct any Clinical Study that Xencor elects to have transferred to Xencor in accordance with clause (b) above will be borne solely by Xencor. If Xencor fails to notify Janssen which option ((a) or (b)) it chooses within the [***] time period, then Xencor will be deemed to have elected to have Janssen wind down the Clinical Study.

13.6.2.9 The Parties will meet after the date of notice of termination to discuss a transition plan setting forth the steps and process for an efficient and orderly transition of Development, Manufacturing and Commercialization activities with respect to each Clinical Reverted Product, including the activities described in this Section 13.6.2. Except as otherwise provided in this Section 13.6.2, each Party will bear its own costs of conducting transition activities.

13.6.2.10 Upon termination, at Xencor's request, Janssen will assign to Xencor, all worldwide rights in and to any and all Product Marks used to Commercialize a Reverted Product in the Territory, including all trademark applications and registrations. Xencor shall be solely responsible for all costs and expenses related to the assignments, including recordal of the same. For a period of up to [***] after the termination date, at Xencor's cost and expense, (a) Janssen shall provide to Xencor the necessary information to permit Xencor to effect and perfect the transfer of the applications and registrations of the Product Marks and (b) Janssen shall reasonably cooperate with Xencor in executing appropriate documents to effectuate the transfer or assignment for the Product Marks worldwide that are in the name of Janssen or any of its Affiliates. After such period, Janssen shall have no further obligation with respect to the matters covered by this Section.

13.6.2.11 For a period of [***] following the effective date of termination, Janssen will reasonably cooperate with Xencor to provide reasonable technical assistance, and to transfer to Xencor any Janssen Know-How licensed to Xencor under Section 13.6.2.2, as requested by Xencor. Such cooperation will include providing Xencor with reasonable access by teleconference or in-person at Janssen's facilities to any Janssen personnel involved in the performance of the Exploitation of Reverted Products or their underlying Licensed Antibodies.

13.6.2.12 At Xencor's sole discretion and direction, Janssen shall reasonably cooperate with Xencor to provide to Xencor a copy of all promotional or marketing materials being used (or approved for use) by Janssen or its Affiliates prior to the effective date of termination in relation to Commercialization of the Reverted Products; provided that Janssen may redact the foregoing Commercialization documentation for any confidential or proprietary information of Janssen that is not related to the Commercialization of the Reverted Products.

13.6.2.13 At Xencor's sole discretion and direction, Janssen and its Affiliates shall assign all of Janssen's right, title and interest in and to any agreements (or portions thereof)

between Janssen and Third Parties entered into after the Effective Date that solely relate to the Development, Commercialization or Manufacture of the Clinical Reverted Products, where such assignment is permitted without charge to Janssen or its Affiliates and where Xencor shall assume all future payments due under any agreement assigned pursuant to this paragraph.

13.6.2.14 Notwithstanding anything in ARTICLE 9, Xencor shall have with respect to a Reverted Product: (a) final decision-making authority over Prosecution of all [***]; (b) the sole right, but not the obligation, to initiate Infringement Actions with respect to [***]; (c) the sole discretion to determine which [***], if any, are extended with respect to any Reverted Product pursuant to the U.S. Drug Price Competition and Patent Term Restoration Act of 1984, the Supplementary Certificate of Protection of Member States of the EU and other similar measures in other jurisdictions worldwide; and (d) control over all Invalidity Claims for [***]. Additionally, the language in the first sentence of Section 9.6 above that reads "Janssen intends" shall be deemed to read "Xencor intends."

13.6.2.15 Xencor will indemnify, defend and hold harmless the Janssen Indemnitees from and against any and all Losses to the extent arising out of or relating to the Exploitation of the Reverted Product by or for Xencor or any of its Affiliates, sublicensees, agents and contractors on or after the effective date of termination. Any claim of indemnification by a Janssen Indemnitee under this Section will be subject to the procedures set forth in Section 12.3 of this Agreement.

13.6.3 Effects of Expiration. If this Agreement expires in accordance with Section 13.1, the licenses and other rights granted by one Party to the other Party with respect to the Licensed Products in the Field will survive on a fully-paid, royalty-free, non-exclusive, irrevocable and perpetual basis.

13.6.4 Non-Exclusive Remedy. Notwithstanding anything herein to the contrary, expiration or termination of this Agreement by a Party will be without prejudice to other remedies such Party may have at law or equity.

13.6.5 Survival. Unless otherwise expressly provided in this Agreement, in the event of any expiration or termination of this Agreement the Sections and Articles set forth below, as well as any other Sections, Articles or defined terms referred to in such Sections or Articles or necessary to give them effect, will survive: ARTICLE 5 (with respect to Permitted Prostate Combination Regimen Studies previously consented to by the non-proposing Party), ARTICLE 10, ARTICLE 15, ARTICLE 16, Sections 3.4.3, 7.6, 7.7 (with respect to amounts paid under the Agreement), 8.1.3, 8.1.4, 8.2 (with respect to the licenses granted under Sections 8.1.3 and 8.1.4), 9.2.3, 9.3.3, 9.3.4, 9.4.5, 9.6, 9.7, 11.6, 12.1, 12.2, 12.3, and 13.6. Furthermore, any other provisions required to interpret such Parties' surviving rights and obligations under this Agreement will survive to the extent required. Termination or expiration of this Agreement does not affect any liabilities, including accrued payment obligations, that accrued prior to (and such liabilities will survive) termination or expiration of this Agreement. Except as otherwise provided in this ARTICLE 13, all rights and obligations of the Parties under this Agreement,

including any licenses and sublicenses granted under this Agreement, will terminate upon expiration or termination of this Agreement for any reason.

ARTICLE 14
EFFORTS TO OBTAIN CLEARANCES

14.1 Commercially Reasonable Efforts. Subject to the terms and conditions of this Agreement, from the Execution Date to the Effective Date or the earlier termination of this Agreement pursuant to ARTICLE 13, each of the Parties will use its commercially reasonable efforts to take or cause to be taken all actions, to file or cause to be filed all documents, to give or cause to be given all notices to Governmental Authorities or other Persons, to obtain or cause to be obtained all authorizations, consents, waivers, approvals, permits or orders from Governmental Authorities or other Persons, and to do or cause to be done all other things necessary, proper or advisable, in order to cause the Effective Date to occur as soon as practicable following the Execution Date. If the Effective Date has not occurred within [***] after the Execution Date, then either Party may terminate this Agreement upon notice, in which case, all provisions of this Agreement shall terminate and be of no force or effect whatsoever, except only that: (a) any liability of either Party for failing to comply with this Section 14.1 or ARTICLE 10 shall survive; and (b) ARTICLE 10 shall survive.

14.2 Antitrust Filing.

14.2.1 In furtherance and not in limitation of the foregoing, each of the Parties will prepare and file, or cause to be prepared and filed, any required notification pursuant to the HSR Act that is required to be made by such Party or its ultimate parent with respect to the transactions contemplated by this Agreement (the "**Contemplated Transactions**") as promptly as reasonably practicable after, and in no event more than [***] following the Execution Date. The Parties will furnish each other with all necessary information and cooperate with each other in connection with the preparation of such filings, submissions and registrations and seek to secure the expiration or termination of all applicable waiting periods (or any extension thereof) under the HSR Act and to obtain all such authorizations, consents, waivers, approvals, permits and orders as soon as practicable following the Execution Date. Each Party will provide the other Party with a reasonable opportunity to review and comment on any filing, submission, registration or other written communication to be given to, and consult with each other in advance of any meeting or conference with, the FTC, the Antitrust Division of the DOJ or any other Governmental Authority in connection with the efforts taken pursuant to this Section or otherwise in connection with the Contemplated Transactions. Janssen shall be responsible for any filing fees required under the HSR Act . Notwithstanding anything in this Agreement to the contrary, Janssen shall, on behalf of the Parties, control and lead all communications and strategy for dealing with any Governmental Authority under the HSR Act.

14.2.2 If any investigation, inquiry or other Action, whether initiated by a Governmental Authority or a private party, arising out of or relating to any such filing, submission or registration or otherwise relating to the Contemplated Transactions is initiated or threatened, each Party will keep the other Party reasonably informed of any material communications and developments in connection therewith. Subject to applicable Laws relating to the exchange of

information and appropriate confidentiality protections, Xencor and Janssen, or their counsel, to the extent practicable, shall have the right to participate in all substantive communications or meetings with any Governmental Authority in connection with review of the Contemplated Transactions under the HSR Act, to the extent permitted by such Governmental Authority.

14.2.3 The Parties will use commercially reasonable efforts to promptly respond to all inquiries made by the FTC, DOJ and any other applicable Governmental Authorities in connection with such filings, submissions or registrations or otherwise in connection with the Contemplated Transactions and to promptly provide to such Governmental Authorities any additional information and documentary material requested under applicable Law. If any objections are raised or asserted with respect to the Contemplated Transactions under applicable Law or if any Action is instituted (or threatened to be instituted) by the FTC, the DOJ or any other applicable Governmental Authority or any private party challenging any of the transactions contemplated under this Agreement as being in violation of any applicable Law or which would otherwise prevent, impede or delay the consummation of the Contemplated Transactions, the Parties will use their commercially reasonable efforts to resolve any such objections or Actions so as to permit consummation of the Contemplated Transactions as soon as reasonably practicable, provided that commercially reasonable efforts of Janssen will not require Janssen or any of its Affiliates to agree to any prohibition, limitation, divestiture or other requirement that would (a) limit or otherwise adversely affect the right of Janssen to Exploit the Licensed Antibodies and Licensed Products or (b) require or compel Xencor, Janssen or any Affiliate of Janssen to dispose of all or any portion of its properties or assets.

ARTICLE 15
DISPUTE RESOLUTION

15.1 Exclusive Dispute Resolution Mechanism. The Parties recognize that a dispute may arise relating to this Agreement (a "**Dispute**"). The term "Dispute" excludes any Committee Matter, which will be subject to resolution under Section 2.5. Any Dispute, including, to the extent related to this Agreement, disputes that may involve the parent company, subsidiaries, or Affiliates under common control of any Party, shall be resolved in accordance with this ARTICLE 15.

15.2 Referral to Executive Officers. Either Party may refer to the Executive Officers any Dispute. The Executive Officers shall discuss any such matter referred to them in good faith and attempt to find a mutually satisfactory resolution to the issue. If the Executive Officers do not reach consensus regarding, or do not resolve, such a matter within [***] after the date on which the matter is referred to the Executive Officers (unless a longer period is agreed to by the Parties), then the matter may be referred to mediation in accordance with Section 15.3 below.

15.3 Mediation.

15.3.1 With respect to any Dispute that is not resolved by the Executive Officers under Section 15.2, the Parties shall first attempt in good faith to resolve such Dispute by confidential mediation in accordance with the then-current Mediation Procedure of the International Institute for Conflict Prevention and Resolution ("**CPR Mediation Procedure**") (www.cpradr.org)

before initiating arbitration. The CPR Mediation Procedure shall control, except where it conflicts with these provisions, in which case these provisions control. The mediator shall be chosen pursuant to CPR Mediation Procedure. The mediation shall be held in New York, New York.

15.3.2 Either Party may initiate mediation by written notice to the other Party for any Dispute that is not resolved by the Executive Officers under Section 15.2. The Parties agree to select a mediator within [***] of the notice, and the mediation will begin promptly after the selection. The mediation will continue until the mediator, or either Party, declares in writing, no sooner than after the conclusion of one full day of a substantive mediation conference attended on behalf of each Party by a senior business person with authority to resolve the Dispute, that the Dispute cannot be resolved by mediation. In no event, however, shall mediation continue more than [***] days from the initial notice by a Party to initiate meditation unless the Parties agree in writing to extend that period.

15.3.3 Any period of limitations that would otherwise expire between the initiation of mediation and its conclusion shall be extended until [***]after the conclusion of the mediation.

15.4 Arbitration.

15.4.1 If the Parties fail to resolve the Dispute in mediation, and a Party desires to pursue resolution of the Dispute, the Dispute shall be submitted by either Party for resolution in arbitration pursuant to the then-current CPR Non-Administered Arbitration Rules ("**CPR Rules**") (www.cpradr.org), except where they conflict with these provisions, in which case these provisions control. The arbitration will be held in New York, New York. All aspects of the arbitration shall be treated as confidential.

15.4.2 The arbitrators will be chosen from the CPR Panel of Distinguished Neutrals, unless a candidate not on such panel is approved by both Parties. Each arbitrator shall be a lawyer with at least 15 years' experience with a law firm or corporate law department of over 25 lawyers or who was a judge of a court of general jurisdiction. To the extent that the Dispute requires special expertise, the Parties will so inform CPR prior to the beginning of the selection process.

15.4.3 The arbitration tribunal shall consist of three arbitrators, of whom each Party shall designate one. If, however, the aggregate award sought by the Parties is less than [***] and equitable relief is not sought, a single arbitrator shall be chosen in accordance with the CPR Rules. Candidates for the arbitrator position(s) may be interviewed by representatives of the Parties in advance of their selection, provided that all Parties are represented.

15.4.4 The Parties agree to select the arbitrator(s) within [***] days of initiation of the arbitration. The hearing will be concluded within [***] after selection of the arbitrator(s), and the award will be rendered within [***] of the conclusion of the hearing, or of any post hearing briefing, which briefing will be completed by both sides within [***] days after the conclusion of the hearing. In the event the Parties cannot agree upon a schedule, then the arbitrator(s) shall set the schedule following the time limits set forth above as closely as practical.

15.4.5 The hearing will be concluded in [***] hearing days or less. Multiple hearing days will be scheduled consecutively to the greatest extent possible. A transcript of the testimony adduced at the hearing shall be made and shall be made available to each Party.

15.4.6 The arbitrator(s) shall be guided, but not bound, by the CPR Protocol on Disclosure of Documents and Presentation of Witnesses in Commercial Arbitration (www.cpradr.org) ("**Protocol**"). The Parties will attempt to agree on modes of document disclosure, electronic discovery, witness presentation, etc. within the parameters of the Protocol. If the Parties cannot agree on discovery and presentation issues, the arbitrator(s) shall decide on presentation modes and provide for discovery within the Protocol, understanding that the Parties contemplate reasonable discovery.

15.4.7 The arbitrator(s) shall decide the merits of any Dispute in accordance with the law governing this Agreement, without application of any principle of conflict of laws that would result in reference to a different law. The arbitrator(s) may not apply principles such as "amiable compositeur" or "natural justice and equity."

15.4.8 The arbitrator(s) are expressly empowered to decide dispositive motions in advance of any hearing and shall endeavor to decide such motions as would a United States District Court Judge sitting in the jurisdiction whose substantive law governs.

15.4.9 The arbitrator(s) shall render a written opinion stating the reasons upon which the award is based. The Parties consent to the jurisdiction of the United States District Court for the district in which the arbitration is held for the enforcement of these provisions and the entry of judgment on any award rendered hereunder. Should such court for any reason lack jurisdiction, any court with jurisdiction may act in the same fashion.

15.4.10 Notwithstanding anything to the contrary in ARTICLE 15, each Party has the right to seek injunctive or equitable relief at any time from any court such as attachment, preliminary injunction, replevin, etc. to avoid irreparable harm, maintain the status quo, or preserve the subject matter of the Dispute. Rule 14 of the CPR Rules does not apply to this Agreement.

15.5 Waiver. EACH PARTY HERETO WAIVES ITS RIGHT TO TRIAL OF ANY ISSUE BY JURY.

ARTICLE 16
MISCELLANEOUS

16.1 Assignment; Successors. Neither Party may assign this Agreement or any of its rights or obligations under this Agreement without the written consent of the other Party; provided, however, that either Party may assign this Agreement in its entirety without such consent (but with notice to the other Party following such assignment), to: (a) an Affiliate, as long as the assignee remains an Affiliate of the assigning Party, provided that the assigning Party will remain responsible for the performance of, and primarily liable under, this Agreement notwithstanding such assignment; or (b) a Third Party that acquires all or substantially all of the

business or consolidated assets of such Party (whether by merger, reorganization, acquisition, sale or otherwise). No assignment of this Agreement will be valid and effective unless and until the assignee agrees in writing to be bound by the terms and conditions of this Agreement. The terms and conditions of this Agreement will be binding on and inure to the benefit of the successors and permitted assigns of the Parties. Any assignment of this Agreement not in accordance with this Section 16.1 will be null and void.

16.2 Performance by Affiliates. To the extent that this Agreement imposes obligations on Affiliates of a Party, such Party agrees to cause its Affiliates to perform such obligations. Each Party may use one or more of its Affiliates to perform its obligations and duties under this Agreement, provided that such Party provides prompt written notice to the other Party. Such Party will remain liable under this Agreement for the prompt payment and performance of all of its obligations under this Agreement.

16.3 Subcontracting. Each Party (or its Affiliate) may subcontract the performance of any Research Program activities with respect to the Licensed Products undertaken in accordance with this Agreement to one or more Third Parties (each such Third Party, a "**Subcontractor**"), provided that any such Third Party must satisfy any subcontractor criteria established by the JRC. All subcontracted activities will be conducted pursuant to a written agreement between the subcontracting Party and the Subcontractor (a "**Subcontract**"), which will be consistent with the terms and conditions of this Agreement, will contain confidentiality provisions no less restrictive than those set forth in ARTICLE 10, and will contain a certification that such Third Party and its officers, employees and agents have not been debarred, and are not subject to debarment, pursuant to Section 306 of the United States Federal Food, Drug, and Cosmetic Act, and are not the subject of a conviction described in such section. The subcontracting Party will oversee the performance of its Subcontractors, and each Party will have the right from time to time, but not more than once per Calendar Year, to audit the performance of the other Party's Subcontractors. Notwithstanding the foregoing, the subcontracting Party (or Party whose Affiliate enters into a Subcontract) will remain liable under this Agreement for the performance of all its obligations under this Agreement and will be responsible for and liable for compliance by its Subcontractors with the applicable provisions of this Agreement.

16.4 No Consequential or Punitive Damages. EXCEPT FOR A BREACH OF ARTICLE 10, NEITHER PARTY HERETO NOR ANY OF ITS AFFILIATES WILL BE LIABLE FOR INDIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL, EXEMPLARY, PUNITIVE OR MULTIPLE DAMAGES ARISING OUT OF THIS AGREEMENT OR THE EXERCISE OF ITS RIGHTS UNDER THIS AGREEMENT, OR FOR ANY LOSS OR INJURY TO A PARTY'S OR ITS AFFILIATES' PROFITS, REVENUES, BUSINESS OR GOODWILL ARISING FROM OR RELATING TO ANY BREACH OF THIS AGREEMENT, REGARDLESS OF ANY NOTICE OF SUCH DAMAGES. NOTHING IN THIS SECTION 16.4 IS INTENDED TO LIMIT OR RESTRICT THE INDEMNIFICATION RIGHTS OR OBLIGATIONS OF EITHER PARTY WITH RESPECT TO INDEMNIFICATION CLAIMS.

16.5 Choice of Law. This Agreement will be governed by and interpreted under, and any court action in accordance with Section 16.6 will apply, the laws of the State of New York excluding: (i) its conflicts of laws principles; (ii) the United Nations Conventions on Contracts

for the International Sale of Goods; (iii) the 1974 Convention on the Limitation Period in the International Sale of Goods (the "**1974 Convention**"); and (iv) the Protocol amending the 1974 Convention, done at Vienna April 11, 1980. Notwithstanding anything to the contrary herein, the interpretation and construction of any Patents will be governed in accordance with the laws of the jurisdiction in which such Patents were filed or granted, as the case may be.

16.6 Submission to Jurisdiction. Each Party (i) submits to the jurisdiction of the state and federal courts sitting in New York, New York, with respect to actions or proceedings arising out of or relating to this Agreement in which a Party brings an action in aid of arbitration, (ii) agrees that all claims in respect of such action or proceeding may be heard and determined in any such court and (iii) agrees not to bring any action or proceeding arising out of or relating to this Agreement in any other court, other than an action or proceeding seeking injunctive relief or brought to enforce an arbitration ruling issued pursuant to Section 15.4. Each Party waives any defense of inconvenient forum to the maintenance of any action or proceeding so brought. Each Party may make service on the other Party by sending or delivering a copy of the process to the Party to be served at the address and in the manner provided for the giving of notices in Section 16.7. Nothing in this Section 16.6, however, will affect the right of any Party to serve legal process in any other manner permitted by Law.

16.7 Notices. All notices, requests, demands, waivers and other communications required or permitted to be given under this Agreement will be in writing and deemed given if delivered personally or sent by overnight courier to the receiving Party, in each case with a copy sent via electronic mail (if an electronic mail address of the party to whom the relevant communication is being made has been designated pursuant hereto and remains a working electronic mail address), at the following addresses (or at such other addresses as will be specified by like notice):

If to Xencor:

[***]

If to Janssen:

[***]

All such notices, requests, demands, waivers and other communications will be deemed to have been received, if by personal delivery or overnight courier, on the day delivered or, if by facsimile, on the next Business Day following the day on which such facsimile was sent; provided, in each case that a copy is also sent by electronic mail in accordance with the first sentence of this Section 16.7.

16.8 Severability. The provisions of this Agreement will be deemed severable and the invalidity or unenforceability of any provision will not affect the validity or enforceability of the other provisions hereof. If any provision of this Agreement, or the application of such provision to any Person or any circumstance, is invalid or unenforceable, (a) a suitable and equitable

provision will be substituted therefor in order to carry out, so far as may be valid and enforceable, the intent and purpose of such invalid or unenforceable provision and (b) the remainder of this Agreement and the application of such provision to other Persons or circumstances will not be affected by such invalidity or unenforceability, nor will such invalidity or unenforceability affect the validity or enforceability of such provision, or the application of such provision, in any other jurisdiction.

16.9 Captions. All captions in this Agreement are for convenience only and will not be interpreted as having any substantive meaning.

16.10 Further Actions. Each Party agrees to execute, acknowledge and deliver such further instruments and to do all such other acts as may be necessary or appropriate to carry out the purposes and intent of this Agreement.

16.11 Amendment; No Waiver. No waiver, modification or amendment of any provision of this Agreement will be valid or effective unless made in writing and signed by a duly authorized officer of each Party. The failure of either Party to assert a right hereunder or to insist upon compliance with any term or condition of this Agreement will not constitute a waiver of that right or excuse a similar subsequent failure to perform any such term or condition.

16.12 Integration. This Agreement constitutes the entire agreement between the Parties with respect to the subject matter of this Agreement and supersedes all previous agreements, whether written or oral. Notwithstanding the authority granted to the Committees under this Agreement, this Agreement may be amended only in writing signed by properly authorized representatives of each of Xencor and Janssen. In the event of a conflict between the GDP, on the one hand, and this Agreement, on the other hand, the terms of this Agreement will govern.

16.13 Independent Contractors; No Agency. Neither Party will have any responsibility for the hiring, firing or compensation of the other Party's employees or for any employee benefits. No employee or representative of a Party, including the Xencor sales representatives, will have any authority to bind or obligate the other Party to this Agreement for any sum or in any manner whatsoever, or to create or impose any contractual or other liability on the other Party without said Party's written approval. For all purposes, and notwithstanding any other provision of this Agreement to the contrary, Janssen's legal relationship under this Agreement to Xencor, and Xencor's legal relationship under this Agreement to Janssen, will be that of independent contractor and will not constitute a partnership, joint venture or agency.

16.14 Force Majeure. Neither Party will be liable for delay or failure in the performance of any of its obligations hereunder (other than the payment of money) if such delay or failure is due to causes beyond its reasonable control, including acts of God, fires, typhoon, floods, earthquakes, tsunami, pandemics, embargoes, acts of war (whether war be declared or not), terrorism, strikes, lockouts, pandemics or other civil unrest, or omissions or delays in acting by any governmental authority ("**Force Majeure**"); provided, however, that the affected Party promptly notifies the other Party and further provided that the affected Party will use its Diligent Efforts to avoid or remove such causes of non-performance and to mitigate the effect of such occurrence, and will continue performance with the commercially reasonable dispatch whenever such causes are removed. When such circumstances arise, the Parties will negotiate in

good faith any modifications of the terms of this Agreement that may be necessary or appropriate in order to arrive at an equitable solution.

16.15 Counterparts; Signatures. This Agreement may be executed in counterparts, each of which counterparts, when so executed and delivered, will be deemed to be an original, and all of which counterparts, taken together, will constitute one and the same instrument even if both Parties have not executed the same counterpart. Signatures provided by facsimile transmission or by email of a .pdf attachment will be deemed to be original signatures.

16.16 Construction. References to Sections include subsections, which are part of the related Section. Except as otherwise explicitly specified to the contrary, (i) references to a Section, Article, Exhibit or Schedule means a Section or Article of, or a Schedule or Exhibit to, this Agreement and all subsections thereof, unless another agreement is specified; (ii) references to a particular statute or regulation include all rules and regulations thereunder and any successor statute, rules or regulations then in effect, in each case, including the then-current amendments thereto; (iii) words in the singular or plural form include the plural and singular form, respectively; (iv) unless the context requires a different interpretation, the word "or" has the inclusive meaning that is typically associated with the phrase "and/or"; (v) terms "including," "include(s)," "such as," and "for example" as used in this Agreement mean including the generality of any description preceding such term and will be deemed to be followed by "without limitation"; (vi) whenever this Agreement refers to a number of days, such number will refer to calendar days unless Business Days are specified; (vii) when a time period set forth in this Agreement ends on a day that is not a Business Day, the last day of such time period will be the next Business Day; (viii) references to a particular Person include such Person's successors and assigns to the extent not prohibited by this Agreement; (ix) all words used in this Agreement will be construed to be of such gender or number as the circumstances require; (x) the words "hereof," "herein," "hereby" and derivative or similar words refer to this Agreement (including any Exhibits); (xi) neither Party or its Affiliates will be deemed to be acting "on behalf of" the other Party under this Agreement, except to the extent expressly otherwise provided; and (xii) references to sublicensees include direct and indirect sublicensees.

[Signature Page Follows]

IN WITNESS WHEREOF, the Parties have caused this Collaboration and License Agreement to be executed by their respective duly authorized officers as of the Execution Date.

XENCOR, INC.	**JANSSEN BIOTECH, INC.**
By: /s/ Bassil Dahiyat	By: /s/ Serge Messerlian
Name: Bassil Dahiyat	Name: Serge Messerlian
Title: CEO	Title: President

[***] = CERTAIN IDENTIFIED INFORMATION HAS BEEN OMITTED FROM THIS DOCUMENT BECAUSE IT IS BOTH NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED, AND HAS BEEN MARKED WITH "[***]" TO INDICATE WHERE OMISSIONS HAVE BEEN MADE.

LIST OF EXHIBITS AND SCHEDULES

Exhibit 1.8	Johnson & Johnson Universal Calendar
Exhibit 3.2	Research Plan
Schedule 5.1.1	Janssen Eligible Prostate Products and Xencor Eligible Prostate Products
Exhibit 10.5.1	Initial Press Release
Schedule 11.5.2	CD28 Binding Domains
Schedule 11.5.10	Certain Patents of Xencor

[***] = CERTAIN IDENTIFIED INFORMATION HAS BEEN OMITTED FROM THIS DOCUMENT BECAUSE IT IS BOTH NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED, AND HAS BEEN MARKED WITH "[***]" TO INDICATE WHERE OMISSIONS HAVE BEEN MADE.

Exhibit 1.8

Johnson & Johnson Universal Calendar

See attached.

[***] = CERTAIN IDENTIFIED INFORMATION HAS BEEN OMITTED FROM THIS DOCUMENT BECAUSE IT IS BOTH NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED, AND HAS BEEN MARKED WITH "[***]" TO INDICATE WHERE OMISSIONS HAVE BEEN MADE.

Exhibit 3.2

Research Plan

See attached.

[***] = CERTAIN IDENTIFIED INFORMATION HAS BEEN OMITTED FROM THIS DOCUMENT BECAUSE IT IS BOTH NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED, AND HAS BEEN MARKED WITH "[***]" TO INDICATE WHERE OMISSIONS HAVE BEEN MADE.

Schedule 5.1.1

Janssen Eligible Prostate Products and Xencor Eligible Prostate Products

[***]

[***] = CERTAIN IDENTIFIED INFORMATION HAS BEEN OMITTED FROM THIS DOCUMENT BECAUSE IT IS BOTH NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED, AND HAS BEEN MARKED WITH "[***]" TO INDICATE WHERE OMISSIONS HAVE BEEN MADE.

Exhibit 10.5.1

Initial Press Release

See attached.

[***] = CERTAIN IDENTIFIED INFORMATION HAS BEEN OMITTED FROM THIS DOCUMENT BECAUSE IT IS BOTH NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED, AND HAS BEEN MARKED WITH "[***]" TO INDICATE WHERE OMISSIONS HAVE BEEN MADE.

Schedule 11.5.2

CD28 Binding Domains

[***]

[***] = CERTAIN IDENTIFIED INFORMATION HAS BEEN OMITTED FROM THIS DOCUMENT BECAUSE IT IS BOTH NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED, AND HAS BEEN MARKED WITH "[***]" TO INDICATE WHERE OMISSIONS HAVE BEEN MADE.

Schedule 11.5.10

Certain Patents of Xencor

See attached.

[***] = CERTAIN IDENTIFIED INFORMATION HAS BEEN OMITTED FROM THIS DOCUMENT BECAUSE IT IS BOTH NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED, AND HAS BEEN MARKED WITH "[***]" TO INDICATE WHERE OMISSIONS HAVE BEEN MADE.

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Nos. 333-192635, 333-216365, and 333-236607) on Form S-8 and the Registration Statement (No. 333-213700) on Form S-3 of Xencor, Inc. of our reports dated February 23, 2021, relating to the financial statements and the effectiveness of internal control over financial reporting of Xencor, Inc., appearing in this Annual Report on Form 10-K of Xencor, Inc. for the year ended December 31, 2020.

/s/ RSM US LLP

Los Angeles, California
February 23, 2021

Exhibit 31.1

CERTIFICATION OF THE CHIEF EXECUTIVE OFFICER PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Bassil I. Dahiyat, Ph.D., certify that:

1. I have reviewed this Annual Report on Form 10-K for the fiscal year ended December 31, 2020 of Xencor, Inc. (the "Company");

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 Company as of, and for, the periods presented in this report;

4. The Company'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 15(d) – 15(f) for the Company 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 Company, 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 Company'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 Company's internal control over financial reporting that occurred during the Company's most recent fiscal quarter (the Company's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting; and

5. The Company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company'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 Company'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 Company's internal control over financial reporting.

/s/ Bassil I. Dahiyat

Bassil I. Dahiyat, Ph.D.
President & Chief Executive Officer

Date: February 23, 2021

Exhibit 31.2

CERTIFICATION OF THE CHIEF FINANCIAL OFFICER PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, John J. Kuch, certify that:

1. I have reviewed this Annual Report on Form 10-K for the fiscal year ended December 31, 2020 of Xencor, Inc. (the "Company");

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 Company as of, and for, the periods presented in this report;

4. The Company'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 15(d) – 15(f)) for the Company 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 Company, 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 Company'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 Company's internal control over financial reporting that occurred during the Company's most recent fiscal quarter (the Company's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting; and

5. The Company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company'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 Company'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 Company's internal control over financial reporting.

/s/ JOHN J. KUCH

John J. Kuch
Chief Financial Officer (Principal Financial Officer)

Date: February 23, 2021

Exhibit 32.1

CERTIFICATION
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
(Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code)

In connection with the Annual Report on Form 10-K of Xencor, Inc. (the "Company") for the period ended December 31, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Bassil I. Dahiyat, Ph.D., as President and 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 to my knowledge:

1. the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 23, 2021

/s/ BASSIL I. DAHIYAT

Bassil I. Dahiyat, Ph.D.
President & Chief Executive Officer

The foregoing certification is being furnished solely to accompany the Report pursuant to 18 U.S.C. § 1350, and is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and is not to be incorporated by reference into any filing of the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing. A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 32.2

CERTIFICATION
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
(Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code)

In connection with the Annual Report on Form 10-K of Xencor, Inc. (the "Company") for the period ended December 31, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, John J. Kuch, as Principal 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 to my knowledge:

1. the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 23, 2021

/s/ JOHN J. KUCH

John J. Kuch
Chief Financial Officer

The foregoing certification is being furnished solely to accompany the Report pursuant to 18 U.S.C. § 1350, and is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and is not to be incorporated by reference into any filing of the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing. A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.