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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2021.

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 001-38129

Mersana Therapeutics, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**04-3562403**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)
840 Memorial Drive Cambridge, MA	**02139**
(Address of Principal Executive Offices)	(Zip Code)

Registrant's telephone number, including area code **(617) 498-0020**

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

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Common Stock, $0.0001 par value	MRSN	The Nasdaq Global Select 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 Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that 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 by Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

As of June 30, 2021, the last business day of the registrant's most recently completed second fiscal quarter, the aggregate market value of the registrant's common stock held by non-affiliates was $799,836,646, based on the last reported sale price of such stock on the Nasdaq Global Select Market as of such date.

As of February 25, 2022, the registrant had 83,389,806 shares of common stock outstanding at a par value $0.0001 per share.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement that will be filed for the 2022 Annual Meeting of Stockholders within 120 days of the end of the registrant's fiscal year ended December 31, 2021 are incorporated by reference in Part III of this Annual Report on Form 10-K to the extent stated herein.

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PART I

REFERENCES TO MERSANA

Throughout this Annual Report on Form 10-K, the "Company," "Mersana," "we," "us," and "our," except where the context requires otherwise, refer to Mersana Therapeutics, Inc. and its consolidated subsidiary, and "our board of directors" refers to the board of directors of Mersana Therapeutics, Inc.

FORWARD LOOKING STATEMENTS AND INDUSTRY DATA

This Annual Report on Form 10-K contains forward-looking statements. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based on our current beliefs, expectations and assumptions regarding the future of our business, future plans and strategies, our clinical results and other future conditions. The words "aim," "anticipate," "believe," "contemplate," "continue," "could," "estimate," "expect," "goal," "intend," "may," "on track," "plan," "possible," "potential," "predict," "project," "seek," "should," "target," "will," "would" or the negative of these terms or other similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

These forward-looking statements include, among other things, statements about:

- the initiation, cost, timing, progress and results of our current and future research and development activities, preclinical studies and clinical trials;
- the adequacy of our inventory of upifitamab rilsodotin (UpRi) and XMT-1592 to support our ongoing clinical trials, as well as the outcome of planned manufacturing runs;
- the timing of, and our ability to obtain and maintain, regulatory approvals for our product candidates;
- unmet need of ovarian cancer and non-small cell lung cancer;
- our ability to quickly and efficiently identify and develop additional product candidates;
- our ability to advance any product candidate into, and successfully complete, clinical trials;
- our intellectual property position, including with respect to our trade secrets;
- the potential benefits of strategic partnership agreements and our ability to enter into selective strategic partnerships;
- our estimates regarding expenses, future revenues, capital requirements, the sufficiency of our current and expected cash resources and our need for additional financing; and
- the potential impact of the ongoing COVID-19 pandemic.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included in this Annual Report on Form 10-K, particularly in the "Risk factors" section, that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make.

In addition, the COVID-19 pandemic could adversely affect our preclinical and clinical development efforts, business operations and financial results. The extent of the impact and the value of and market for our common stock will depend on future developments that are highly uncertain and cannot be predicted with confidence at this time, such as the ultimate duration of the pandemic, the emergence of new variants of the virus, travel restrictions, quarantines, physical distancing and business closure requirements in the United States and in other countries, and the effectiveness of actions taken globally to contain and treat the disease.

The forward-looking statements contained herein represent our views as of the date of this Annual Report on Form 10-K and we do not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law. We anticipate that subsequent events and developments will cause our views to change. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this Annual Report on Form 10-K.

This Annual Report on Form 10-K may include industry and market data, which we may obtain from our own internal estimates and research, as well as from industry and general publications and research, surveys, and studies conducted by third parties. Industry publications, studies, and surveys generally state that they have been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. While we believe that such studies and publications are reliable, we have not independently verified market and industry data from third-party sources.

SUMMARY OF RISK FACTORS

Our business is subject to varying degrees of risk and uncertainty. Investors should consider the risks and uncertainties summarized below, as well as the risks and uncertainties discussed in Part I, Item 1A, *Risk Factors* of this Annual Report on Form 10-K.

Our business is subject to the following principal risks and uncertainties:

- We have incurred net losses since our inception, we have no products approved for commercial sale and we anticipate that we will continue to incur substantial operating losses for the foreseeable future.
- We will require substantial additional financing to achieve our goals, and a failure to obtain this necessary capital when needed could force us to delay, limit, reduce or terminate our product development or commercialization efforts.
- We have a credit facility that places certain restrictions on our operating and financial flexibility.
- We face substantial competition, which may result in others discovering, developing or commercializing products before, or more successfully than, we do.
- We only have two product candidates, upifitamab rilsodotin (UpRi) and XMT-1592, in clinical trials. A failure of any of our product candidates in clinical development could adversely affect our business and may require us to discontinue development of other product candidates based on the same technology.
- We can provide no assurance that our clinical product candidates will obtain regulatory approval or that the results of clinical trials will be favorable.
- Drug discovery and development is a complex, time-consuming and expensive process that is fraught with risk and a high rate of failure. We can provide no assurance of the successful and timely development of new antibody drug conjugate, or ADC, products.
- If we fail to attract and retain senior management and key scientific personnel, we may be unable to successfully develop our product candidates, conduct our clinical trials and commercialize our product candidates.
- We may encounter difficulties in managing our growth and expanding our operations successfully.
- Our activities, including our interactions with healthcare providers, third party payors, patients and government officials, are, and will continue to be, subject to extensive regulation involving health care, anti-corruption, data privacy and security and consumer protection laws. Failure to comply with applicable laws could result in substantial penalties, contractual damages, reputational harm, diminished revenues and curtailment or restructuring of our operations.
- We rely upon patents and other intellectual property rights to protect our technology. We may be unable to protect our intellectual property rights, and we may be liable for infringing the intellectual property rights of others.
- Our business is subject to risks arising from the outbreaks of disease, such as epidemics or pandemics, including the COVID-19 pandemic.

ITEM 1. BUSINESS

Overview

We are a clinical-stage biopharmaceutical company focused on developing antibody drug conjugates, or ADCs, that offer a clinically meaningful benefit for cancer patients with significant unmet need. We have leveraged over 20 years of industry learning in the ADC field to develop proprietary and differentiated technology platforms that enable us to develop ADCs designed to have improved efficacy, safety and tolerability relative to existing ADC therapies.

We believe that our innovative platforms, including Dolaflexin and Dolasynthen, delivering our proprietary auristatin DolaLock payload, as well as Immunosynthen, which delivers our novel proprietary stimulator of interferon genes, or STING, agonist ImmunoLock payload, together comprise a highly efficient product engine that has enabled a robust discovery pipeline for us and our partners. Our ADCs in preclinical studies and clinical trials include first-in-class molecules that target multiple tumor types with high unmet medical need. Our belief is that our novel ADCs may have more favorable safety and efficacy compared to more traditional existing ADCs developed using first-generation technology.

We have assembled a management team with extensive and relevant experience, including specific ADC experience, from prior work at leading pharmaceutical companies such as Millennium Pharmaceuticals, Inc., Takeda Pharmaceuticals, Inc., Bayer AG, Tesaro, Inc., Vertex Pharmaceuticals Inc., Cubist Pharmaceuticals Inc., Bristol Myers Squibb, Constellation Pharmaceuticals, Inc., Sanofi S.A., GlaxoSmithKline plc, Centocor Inc., Sunovion Pharmaceuticals Inc. and Momenta Pharmaceuticals, Inc. We are supported by our board of directors and scientific advisory board, who offer complementary experience in drug discovery and development, as well as expertise in building public companies, management and business development. We believe that our highly differentiated platforms, together with the team we have assembled, position us well to discover and develop life-changing ADCs for patients fighting cancer.

Strategy

Our goal is to become a leading oncology company by leveraging the potential of our innovative and differentiated ADC technologies and the experience and competencies of our management team to discover and develop promising ADC product candidates and to commercialize cancer therapeutics that address unmet medical needs or provide significant benefit to patients. Key components of our strategy to achieve this goal are as follows:

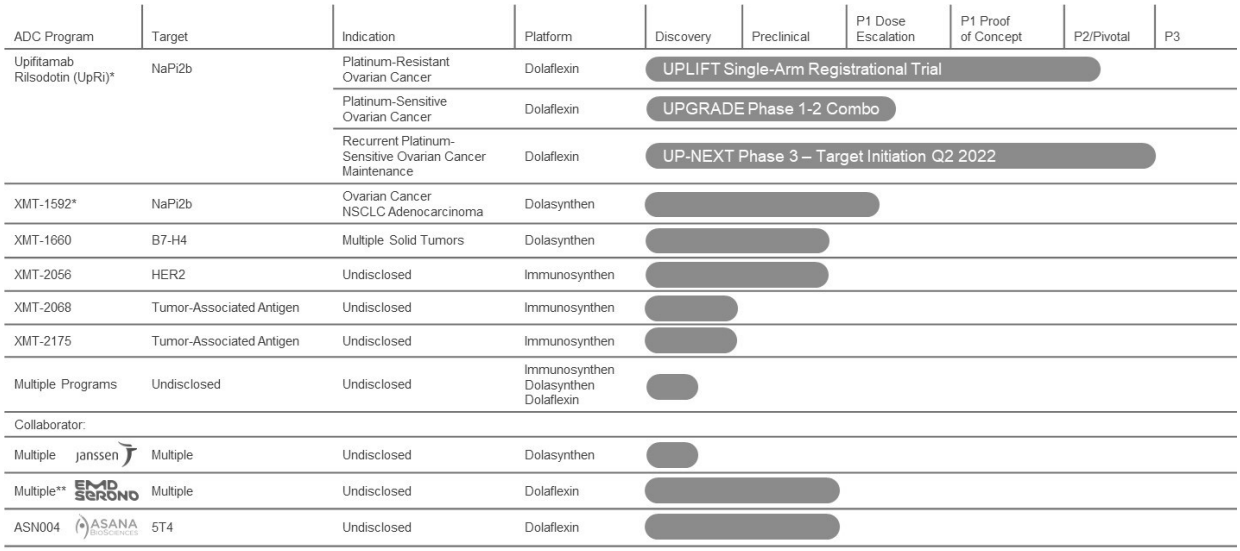
- **Strive to Build UpRi (upifitamab rilsodotin) into a Foundational Medicine in Ovarian Cancer.** Our lead product candidate, upifitamab rilsodotin, which we refer to as UpRi, is a first-in-class Dolaflexin ADC targeting NaPi2b, an antigen broadly expressed in ovarian cancer and other cancers. We are currently evaluating UpRi in platinum-resistant ovarian cancer in a single-arm registrational trial, which we refer to as UPLIFT, for which we expect to complete enrollment in the third quarter of 2022. We are also conducting a Phase 1/2 umbrella combination trial, which we refer to as UPGRADE. The first combination we are exploring is the combination of UpRi with carboplatin, a standard platinum chemotherapy broadly used in the treatment of platinum-sensitive ovarian cancer. We may explore other combinations in the future. We expect to report interim data from UPGRADE in the second half of 2022. In the second quarter of 2022, we expect to initiate enrollment in a randomized placebo-controlled Phase 3 trial, which we refer to as UP-NEXT, to evaluate UpRi as single agent maintenance treatment in patients with platinum-sensitive ovarian cancer that have high NaPi2b expression. Together, data from these trials have the potential to establish the safety and efficacy of UpRi across a wide range of ovarian cancer patients, from those who are platinum-resistant and heavily pre-treated to those in earlier lines of the disease.

- **Strive to Build Out Our Pipeline of Highly Impactful Cancer Medicines.** Our second clinical candidate, XMT-1592, is a NaPi2b- targeted ADC leveraging our Dolasynthen platform. Our strategy is to explore XMT-1592 as an alternative to UpRi in lung and non-small cell lung adenocarcinoma based on preclinical differentiation. We are conducting a Phase 1 dose exploration trial in patients with ovarian cancer and non-small cell lung cancer, or NSCLC, which we expect to complete in the second half of 2022. Additionally, we are advancing XMT-1660, a Dolasynthen ADC targeting B7-H4, an antigen selectively expressed on tumors in areas of high unmet medical need including breast, endometrial and ovarian cancers. We expect to initiate a phase 1 clinical trial of XMT-1660 in solid tumors in mid-2022. Moreover, we have taken ADCs beyond cytotoxics by developing our Immunosynthen platform which may allow tumor-targeted activation of the innate immune system. XMT-2056, an ADC targeting a novel HER2 epitope that is different from those targeted by currently available HER2 therapies, is our first product candidate based on our Immunosynthen STING-agonist platform. We expect to initiate a Phase 1 clinical trial of XMT-2056 in solid tumors in mid-2022. We believe that each of XMT-1660 and XMT-2056 may provide opportunities in areas of high unmet need including, without limitation, breast cancer and other tumor types.

- **Strive to Build Innovation and Scientific Leadership in ADCs.** We intend to establish a leading position in the field of ADCs by continuing to advance platform innovations that further broaden the potential for our ADCs to be first and best in class medicines that deliver clinically meaningful benefit to cancer patients and by pursuing fast-to-market opportunities in areas of high unmet medical need. In addition to the product candidates described above, we also have two earlier stage preclinical candidates, which we refer to as XMT-2068 and XMT-2175, both of which leverage our Immunosynthen platform and target tumor-associated antigens.

- **Strive to Build Mersana as a Top Employer and Strategic Partner.** We aim to attract and retain talented team members with deep experience in drug discovery, development, manufacturing, and commercialization as well as in general business and administration. Our team is driven by a shared passion to advance therapies that make a significant difference in the lives of cancer patients. We will continue to cultivate the collaborative and passionate workplace culture that has allowed us to advance this mission. We also aim to leverage our technical expertise and experience with respect to our innovative and diversified platforms, Dolaflexin, Dolasynthen and Immunosynthen, to attract and cultivate strategic partnerships that facilitate our ability to bring differentiated product candidates to patients. We have established strategic research and development partnerships with Janssen Biotech, Inc., or Janssen, and Merck KGaA for the development and commercialization of additional ADC product candidates leveraging our proprietary Dolasynthen and Dolaflexin platform technologies against a limited number of targets selected by our partners. We believe the potential of our ADC technologies, supported by our scientific and technical expertise and enabled by our intellectual property strategy, all support our independent and collaborative efforts to discover and develop life-changing ADCs for patients fighting cancer.

Our current pipeline is summarized in the chart below:



*NaPi2b antibody used in UpRi (formerly XMT-1536) and XMT-1592 is in-licensed from Recepta Biopharma. Recepta has rights to commercialize UpRi and XMT-1592 in Brazil.
**EMD Serono is an affiliate of Merck KGaA

ADC Background

ADCs are a validated therapeutic modality in oncology with 11 products approved for use by the Food and Drug Administration, or the FDA, and over 100 being tested in clinical trials. We believe that the field has not yet realized its full potential because first generation ADCs have several limitations and platform innovation has been limited.

The goal of first generation ADCs is to deliver cytotoxic therapy specifically to neoplastic cells while sparing normal tissue. An ADC consists of three components: the antibody, the cytotoxic payload, and a linker to join the two. The antibody portion of the ADC achieves specific targeting by binding to an antigen that ideally has high expression on the surface of the tumor cells, and low expression in healthy tissues. Once the antibody binds to the target, the ADC enters the cell, and the payload is typically released killing the cell.

The payload, the drug-to-antibody ratio, or DAR, the linker, and conjugation site of the linker with the antibody all can influence the overall efficacy and tolerability of ADCs. There has been limited innovation in these ADC components since the development of first-generation ADC platforms. We believe optimizing an ADC requires developing payload(s) with optimal properties, varying DAR for a specific target, and optimizing the conjugation site, all of which can contribute to the overall drug-like properties. We believe that our proprietary platforms improve upon first-generation ADC approaches in these aspects and have the potential to advance the field and improve patient outcomes.

Our Technologies and Platforms

The development of ADCs is not a one-size-fits-all approach. In fact, a number of diverse factors impact the properties of an ADC, including payload, DAR, site of conjugation and homogeneity. For each target antigen, there may be an optimal combination of these factors. Our novel and highly differentiated platforms are designed to allow us to optimize these properties for a given target and develop ADCs that are designed to best address patient needs.

DolaLock Payload

We refer to the cytotoxic payload we use with our Dolaflexin and Dolasynthen platforms as our DolaLock payload. Our DolaLock payload is a proprietary auristatin cytotoxic drug and is a highly potent anti-tubulin agent selectively toxic to rapidly dividing cells. The DolaLock payload has been shown in *in vitro* and *in vivo* preclinical studies to control the bystander effect by locking the cytotoxic drug inside cells after allowing a short period of antigen-independent diffusion throughout the tumor. As the drug diffuses through neighboring cells, the DolaLock payload is metabolized to a form that is still highly potent but is designed to no longer be able to cross the cell membrane, thereby controlling the bystander effect for a potentially safer and more effective cancer therapy.

A common mechanism of resistance in cancer is the up-regulation of multi-drug resistance, or MDR, pumps, such as P-glycoproteins, or PgPs, which actively pump drugs out of cancer cells to help them survive. Once metabolized, our DolaLock payload is not a substrate for PgPs, thereby avoiding this resistance mechanism. Our DolaLock payload, with its controlled bystander effect, is designed to enable the creation of ADCs that have the potential of being highly potent, well-tolerated and specifically-targeted cancer therapies.

In addition, our proprietary auristatin payload has also been shown in preclinical studies to cause immunogenic cell death and to stimulate the immune system through dendritic cell activation. Because of this, we have observed synergy with immuno-oncology agents such as PD-1 inhibitors in preclinical models.

Dolaflexin Platform

The Dolaflexin platform was designed to increase the efficacy, safety and tolerability of ADCs. Dolaflexin utilizes our proprietary Fleximer polymer, a biodegradable, highly biocompatible, water-soluble polymer that is able to carry multiple payloads. Instead of direct conjugation to an antibody, payloads are attached through an optimized, cleavable linker to the Fleximer scaffold, which is then conjugated to the antibody through a non-cleavable linker. Our Fleximer polymer has demonstrated dramatically improved drug solubility, pharmacokinetics and immunogenicity, and an increased number of payloads carried by each ADC as compared to other ADC therapies.

As a result, we believe Dolaflexin has the potential to offer the following benefits relative to first generation ADCs:

- **Proprietary DolaLock Payload:** Dolaflexin is loaded with our proprietary auristatin cytotoxic drug, which is a highly potent anti-tubulin agent and that is selectively toxic to rapidly dividing cells and has a controlled bystander effect.

- **Higher Drug-to-Antibody Ratio:** Historically, ADCs have been limited to a DAR of 3-4. The Dolaflexin platform can deliver ADCs with DAR of approximately 10, which has enabled ADCs created using this platform to demonstrate greater preclinical efficacy while also maintaining pharmacokinetics and drug-like properties.

- **Expanded Range of Addressable Tumor Targets:** The higher DAR enabled by Dolaflexin results in a higher amount of cytotoxic drug released into the tumor cell for every ADC that is internalized. As a result, we believe that Dolaflexin ADCs may demonstrate efficacy against tumor targets with lower levels of antigen expression where traditional ADCs have not been effective.

We believe these advantageous characteristics of our Dolaflexin platform provide a substantial opportunity to develop clinically meaningful ADC therapies with potential to address a broader range of cancers than first generation ADC-based approaches.

Our lead clinical candidate, UpRi, is a Dolaflexin ADC that targets NaPi2b. We are currently evaluating UpRi in the UPLIFT and UPGRADE trials and expect to initiate the UP-NEXT trial in the second quarter of 2022.

Dolasynthen Platform

The Dolasynthen platform enables an iterative approach to designing customized ADCs for a given target while retaining the properties of Dolaflexin, including the use of our proprietary DolaLock payload for a controlled bystander effect. Dolasynthen ADCs consist of a proprietary synthetic scaffold carrying an exact number of DolaLock payloads for precise control of DAR. The Dolasynthen scaffold is then bioconjugated to the antibody in a site-specific manner. The Dolasynthen scaffold has been precisely designed to provide optimal water solubility, charge balance, linker stability and DAR which together offer an opportunity for our ADCs to have superior physicochemical and pharmacokinetic properties.

Illustrated by our preclinical data, we believe Dolasynthen ADCs have broad therapeutic potential as cancer therapies. Our preclinical data demonstrate the ability of the Dolasynthen platform to generate and identify the optimal ADC for a given target and antibody.

We believe that Dolasynthen offers the benefits of Dolaflexin, including the proprietary DolaLock payload, and has the potential to offer the following additional benefits relative to traditional ADCs:

- **Precise Control of DAR:** The optimal DAR may vary between different targets and antibodies. Dolasynthen uses a proprietary scaffold that allows for precise DARs between 2-24, enabling optimization of the DAR for specific antigens and antibodies.

- **Site-Specific Bioconjugation:** The site of scaffold bioconjugation to an antibody impacts the overall properties of that ADC. Dolasynthen enables site-specific bioconjugation allowing further ADC optimization.

- **Homogenous ADC Development:** The DAR and antibody bioconjugation is consistent throughout ADCs developed with the Dolasynthen platform allowing for consistent and precise drug delivery to targeted cancer cells.

- **Increased Hydrophilicity:** The precise optimization of the hydrophilic moiety on Dolasynthen ADCs allows for increased aqueous solubility and enhanced pharmacokinetic properties.

Our second clinical candidate, XMT-1592, is a Dolasynthen ADC targeting NaPi2b-expressing tumor cells. We are conducting a Phase 1 dose exploration trial of XMT-1592 in patients with ovarian cancer and non-small cell lung cancer, NSCLC, adenocarcinoma which we expect to complete in 2022. XMT-1660, our B7-H4-targeted Dolasynthen ADC is currently in investigational new drug, or IND, -enabling studies.

ImmunoLock Payload

We refer to the STING agonist that is used as the payload with our Immunosynthen platform as our ImmunoLock Payload. It was designed to have very low cell permeability in order to control delivery and localization of its innate immune-activating effect. STING is a well-studied innate immune pathway capable of inducing anti-tumor immune activity. Our preclinical data show that the anti-tumor activity of Immunosynthen ADCs carrying the ImmunoLock payload is driven by the targeted activation of the STING pathway in tumor-resident immune cells and in tumor cells, in a target dependent manner. STING pathway activation in both cell types within the tumor provides the potential for enhanced anti-tumor activity with a STING-agonist ADC compared to other innate immune approaches that activate only the immune cells and are not capable of activating the tumor cells.

Immunosynthen Platform

Immunosynthen is our novel immunostimulatory ADC platform designed to take ADCs beyond the delivery of traditional cytotoxic payloads and into targeted stimulation of the innate immune system. Through the tumor-targeted delivery of a novel STING agonist, ADCs created with our Immunosynthen platform have the potential to address the challenges of efficacy, delivery and tolerability posed by the intratumoral or intravenous injection of free (unconjugated) STING agonists. We have generated preclinical data across multiple, diverse targets by creating Immunosynthen ADCs based on a variety of antibodies directed to those targets and evaluating them in a range of tumor models. In each case we have demonstrated significant anti-tumor activity *in vivo (*including complete tumor regressions) after a single low, well-tolerated dose. Additional characterization has demonstrated increased cytokine expression and immune cell infiltration in the tumor microenvironment, as well as the

induction of immunological memory. We have demonstrated tolerability and characterized the favorable pharmacokinetic profile of Immunosynthen ADCs in non-human primates, after multiple intravenous doses and at exposures significantly higher than those required for robust efficacy in mice.

Immunosynthen ADCs have been designed to overcome the limitations of free STING agonists and to offer a highly differentiated approach from other innate immune activators due to the following:

- **Non-Cell Permeable STING Agonist ImmunoLock Payload:** Our novel and proprietary payload has very low cell permeability, remaining in the cell to which it is delivered by the antibody, where it can exert its effect.

- **Enhanced Pharmacokinetic Properties:** The prolonged pharmacokinetics of ADCs and active transport into tumor cells and tumor-resident immune cells can overcome pharmacokinetic and permeability issues of the free agonists, resulting in more robust and sustained activation of the innate immune response in the tumor.

- **Immunosynthen STING ADCs Provide Targeted Activation in Two Cell Types:** Because STING, unlike other innate immune pathways, can be activated in tumor cells and tumor-resident immune cells, target-dependent delivery can result in innate immune activation of both cell types, providing potent and robust anti-tumor responses and the induction of immunological memory.

Together these features have the potential to improve therapeutic index by selectively activating the innate immune system in the tumor environment and minimizing activation in other tissues. We are building a pipeline of Immunosynthen ADC candidates applicable to a broad range of clinical indications. Our first Immunosynthen ADC development candidate, XMT-2056 targets a novel epitope of HER2 and we expect to initiate a Phase 1 clinical trial in mid-2022.

Our product candidates

We are leveraging our platforms to develop a robust pipeline of product candidates with the potential of becoming clinically meaningful cancer therapies. Our pipeline strategy focuses on targets that have been biologically validated (either through ADCs or other modalities), where the advantages of our platforms may lead to clinically superior therapeutic benefits, where we have the potential to achieve first-in-class status, or where fast-to-market opportunities are available. Our lead product candidate, UpRi, is currently being evaluated in the UPLIFT and UPGRADE trials and we expect to initiate the UP-NEXT trial in 2022. Our next product candidate, XMT-1592, is being evaluated in a dose exploration trial. We are also advancing XMT-1660, a B7-H4-targeted Dolasynthen ADC, and XMT-2056, our first Immunosynthen ADC targeting a novel epitope of HER2, both of which are currently in IND-enabling studies. In addition, our partners have multiple ADC product candidates leveraging our Dolaflexin technology in various stages of development.

Upifitamab rilsodotin (UpRi): our NaPi2b-targeted Dolaflexin ADC

UpRi, a first-in-class ADC targeting the sodium-dependent phosphate transport protein NaPi2b, utilizes the Dolaflexin platform to deliver about 10 DolaLock payload molecules per antibody. We believe the NaPi2b antigen is broadly expressed in ovarian cancer and other cancers with limited expression in normal tissue. NaPi2b is a member of the SLC34 family of sodium-dependent transporters and plays an important role in maintaining phosphate homeostasis. We initiated a Phase 1/2 clinical trial of UpRi in December 2017 with the primary objectives of determining the recommended phase 2 dose and characterizing the efficacy, safety and tolerability and the secondary objective of assessing the correlation of the NaPi2b biomarker expression and efficacy. The dose escalation portion of the trial established 43 mg/m2 up to a maximum of approximately 80 mg as the maximum tolerated dose. The expansion portion of the trial evaluated two doses, 36 mg/m2 and 43 mg/m2, up to a maximum of 80 mg.

There are currently no tests approved by the FDA to measure NaPi2b expression on tumor cells. Our initial clinical trials have not prospectively identified patients with NaPi2b-expressing tumors, but our development plan for UpRi includes the development of a proprietary immunohistochemistry assay to measure NaPi2b expression in tumors. Based on our retrospective evaluation of tumors collected in the dose escalation and expansion portions of our initial UpRi Phase 1 trial, we believe that high NaPi2b expression is present in approximately two-thirds of ovarian cancer patients. We intend to continue developing our assay in order to confirm the broad prevalence of NaPi2b expression in our target patient populations while correlating those expression levels with the efficacy observed in such patients. We are currently collaborating with a third party to create and obtain regulatory approval for our assay as a commercial companion or complementary diagnostic. We expect to use the assay to evaluate Tumor Proportion Score of greater than or equal to 75% (TPS75) to identify patients with high NaPi2b tumor expression and to help us enrich our data analyses based on biomarker expression.

Over the course of 2020, we presented early Phase 1 UpRi clinical data, including presentations at the American Society of Clinical Oncology and the European Society for Medical Oncology and at company presentations to investors. These data were from the dose escalation and expansion portions of our UpRi Phase 1 trial, and they demonstrated encouraging clinical activity in heavily-pretreated patients with a safety profile differentiated from those of first generation ADCs. In August 2020, the FDA granted Fast Track Designation for UpRi for the treatment of patients with platinum-resistant high-grade serous ovarian cancer who have received up to three prior lines of systemic therapy or patients who have received four prior lines of systemic therapy regardless of platinum status. In January 2021 and in September 2021, we provided interim clinical data updates from our expansion cohort. The interim data presented in September 2021 was based on approximately 100 ovarian patients for efficacy analysis and an overall group of approximately 200 patients for safety evaluation. All of the data from these patients were from our ongoing Phase 1/2 clinical trial. These data supported UpRi's clinically meaningful activity in heavily-pretreated ovarian cancer patients with an objective response rate, or ORR, of approximately 34%, including complete responses, in evaluable patients with high NaPi2b tumor expression. The data also showed that UpRi was generally well tolerated without the severe toxicities commonly seen with other ADCs such as neutropenia, ocular toxicities, or peripheral neuropathy. The most common grade 3 or higher adverse events reported in this heavily pretreated trial population included fatigue and transiently increased aspartate aminotransferase. Other adverse events of clinical interest included infrequent, generally low-grade pneumonitis that generally resolves with dose reduction, delay, discontinuation and treatment with steroids. Based on these safety and efficacy data and our population pharmacokinetics analyses of the overall group of approximately 200 patients administered UpRi as of the data cut off, we determined that the phase 2 recommended dose of UpRi is 36 mg/m2 up to a total dose of approximately 80mg. This is the dose that we are currently evaluating in UPLIFT. In November 2021, we announced that we had completed enrollment of a Phase 1/2 dose escalation cohort of NSCLC adenocarcinoma patients. Based on the data collected from that cohort, we deprioritized further monotherapy development in NSCLC, instead focusing on developing UpRi in ovarian cancer.

In April 2021, we initiated UPLIFT which is enrolling patients with platinum-resistant ovarian cancer and with one to four prior lines of therapy, without regard to NaPi2b expression; however, we are confirming the potentially predictive role of the biomarker retrospectively using a novel diagnostic assay to identify patients with high NaPi2b expression. Patients with three to four prior lines of therapy may enroll without prior bevacizumab treatment, accommodating differences in bevacizumab use in early disease. The primary endpoint is ORR in the high NaPi2b patient population and the secondary endpoints are ORR in the overall population, as well as duration of response and safety. UPLIFT is ongoing with sites in the United States, Europe and Australia, and we expect to complete enrollment of approximately 100 patients with NaPi2b high expression and up to 180 patients overall in the third quarter of 2022. If we achieve positive results from UPLIFT, we believe that the trial may enable us to submit a Biologics Licensing Application, or BLA, for UpRi for the treatment of patients with platinum-resistant ovarian cancer with one to four prior lines of therapy, under the FDA's accelerated approval pathway.

In July 2021, we also initiated UPGRADE and began the umbrella trial with an initial evaluation of UpRi combined with carboplatin, a standard platinum chemotherapy used to treat patients with platinum-sensitive ovarian cancer, followed by UpRi monotherapy. The dose escalation portion of UPGRADE is intended to determine the recommended Phase 2 dose of UpRi in combination with carboplatin, and the dose exploration portion of this trial is intended to provide proof of concept for the combination. We expect to report interim data from UPGRADE in the second half of 2022. We believe data from UPGRADE will inform further development of UpRi in combination with other therapies used in platinum-sensitive ovarian cancer.

We expect to initiate UP-NEXT in the second quarter of 2022. The design of UP-NEXT was informed by discussions with the FDA and the Committee for Medicinal Products for Human Use, or CHMP. UP-NEXT could serve as a post-approval confirmatory trial, supporting the expansion of UpRi into earlier lines of therapy. We expect UP-NEXT to enroll platinum-sensitive ovarian cancer patients who have achieved a response or stable disease after platinum therapy. Eligible patients with BRCA mutation must have received prior treatment with poly adenosine diphosphate ribose polymerase, or PARP, inhibitor therapy. Additionally, eligible patients must have high NaPi2b tumor expression. In recognition of the unmet medical need and the lack of a standard of care for these patients, the trial will be randomized against placebo.

XMT-1592: our NaPi2b targeted Dolasynthen ADC

XMT-1592 was created using our Dolasynthen platform and also targets tumors that express NaPi2b. XMT-1592 comprises the same proprietary NaPi2b antibody and potent auristatin DolaLock payload with controlled bystander effect as in UpRi, with the additional features that our Dolasynthen platform offers, including homogeneity, site-specific bioconjugation and precise DAR. Preclinically, XMT-1592 has shown a differentiated profile particularly in a NSCLC adenocarcinoma model, where data suggested it was four times more efficacious than UpRi, consistent with higher payload delivery to the tumor. Based on these preclinical data, we are exploring XMT-1592 as a potential opportunity in NSCLC adenocarcinoma. XMT-1592 is currently

being evaluated in Phase 1 dose exploration trial in patients with ovarian cancer and NSCLC adenocarcinoma. We expect to complete dose exploration in the second half of 2022.

XMT-1660: our B7-H4-targeted Dolasynthen ADC candidate

XMT-1660 is our B7-H4-targeted ADC created with our Dolasynthen platform. We believe the expression profile of B7-H4, a cell surface antigen, is well suited for our unique DolaLock payload. B7-H4 can be expressed on tumor cells and on immunosuppressive tumor associated macrophages, or TAMs, which may lead to additional processing of the ADC and more payload in the tumor environment. We believe DolaLock's direct cytotoxic effect as well as its immunostimulatory effect through dendritic cell activation and immunogenic cell death are well suited to the biology of the B7-H4 target. We have generated favorable preclinical efficacy data and non-human primate tolerability data with Dolasynthen ADCs targeting B7-H4 with precise DARs of 2 and 6. We selected the DAR6 variant based on this preclinical data. We believe that targeting B7-H4 with XMT-1660 provides significant opportunities for development in areas of high unmet need such as breast cancer, endometrial and ovarian cancer. XMT-1660 is currently in IND-enabling studies, and we expect to initiate Phase 1 dose escalation for XMT-1660 in patients with solid tumors in mid-2022.

XMT-2056: our First Immunosynthen ADC candidate

XMT-2056 is our first Immunosynthen STING-agonist ADC. As described above, the therapeutic rationale of an Immunosynthen ADC is to selectively deliver the STING agonist to tumor cells and tumor-resident immune cells in a target-dependent manner, while avoiding delivery to healthy tissues. XMT-2056 is designed to offer a differentiated and complementary therapeutic approach to the treatment of HER2-expressing tumors. XMT-2056 targets a novel HER2 epitope that is distinct from the epitopes targeted by trastuzumab or pertuzumab, providing an opportunity for development as a monotherapy as well as in combination with well-established or investigational anti-HER2 agents. In preclinical studies, XMT-2056 was generally well-tolerated in non-human primate studies with no clinical signs and no adverse findings in clinical pathology or histopathology after single and repeat intravenous doses. XMT-2056 is currently in IND-enabling studies, and we expect to initiate Phase 1 dose escalation for XMT-2056 in patients with solid tumors in mid-2022.

Ovarian cancer unmet need and epidemiology

Worldwide, ovarian cancer had incidence of approximately 314,000 and caused an estimated 207,000 deaths in 2020. With a U.S. incidence of approximately 21,000 and mortality of 14,000 in 2021 according to the National Cancer Institute Surveillance, Epidemiology and End Results Program, ovarian cancer was the second most common gynecologic malignancy and the most common cause of gynecologic cancer death in the United States. Diagnosis is made histologically, and evaluation is commonly performed following surgical removal of an ovary or fallopian tube or biopsies of the peritoneum. The ovarian cancer standard of care is characterized by initial surgery followed by platinum-containing chemotherapy followed by periods of either observation or maintenance. Nearly 85% of ovarian cancer patients typically relapse following initial treatment. Subsequent treatment depends on the depth and duration of response to initial platinum treatment. Ovarian cancer patients who progress within six months of completion of platinum-based therapy are considered to have platinum-resistant disease. Unmet medical need is significant for patients with platinum-resistant ovarian cancer as treatment options are mainly limited to single agent chemotherapies such as pegylated liposomal doxorubicin, topotecan and paclitaxel. Multiple Phase 3 trials of single agent chemotherapies in patients with platinum-resistant disease and one to three prior therapies have exhibited an overall response rate of 4-12% and median progression-free survival of 3-4 months.

With targeted agents approved in platinum-resistant disease increasingly being prescribed in earlier lines of therapy, the unmet need is expected to remain severe. Bevacizumab in combination with chemotherapy is indicated to treat a subset of platinum-resistant ovarian cancer patients with no more than two prior therapies but it is not always well-tolerated and has shown no overall survival benefit. Use of bevacizumab in combination with platinum-containing chemotherapy in the frontline and platinum-sensitive recurrent settings mean an increasing number of platinum-resistant patients are pre-treated with bevacizumab and are not candidates for additional bevacizumab combination treatment. More recently, PARP inhibitors have been approved for heavily-pretreated ovarian cancer including platinum-resistant disease. However, they are predominantly used in a subset of patients with cancers harboring BRCA1 and BRCA2 mutations. Similarly, use of PARP inhibitors in earlier lines of recurrent platinum-sensitive maintenance and more recently frontline maintenance therapy following platinum-based chemotherapy means an increasing number of platinum-resistant patients are pre-treated with PARP inhibitors and are not candidates for additional PARP inhibitor therapy.

NSCLC unmet need and epidemiology

Worldwide, lung cancer had an incidence of approximately 2.2 million and caused an estimated 1.8 million deaths in 2020. With a U.S. incidence of approximately 236,000 new cases and over 130,000 deaths in 2021, lung cancer was the deadliest form of cancer in the United States. The five year survival rate is less than 20% on average. Approximately 95% of all lung cancers are classified as either small cell lung cancer or NSCLC. NSCLC can be further divided into squamous or non-squamous. The majority of non-squamous NSCLC is classified as adenocarcinoma. These histological distinctions are important for proper staging, treatment and prognosis. For patients with NSCLC, initial treatment is largely determined by the stage of disease. Surgical resection offers the best opportunity for long-term survival and cure in patients with resectable early-stage NSCLC. Locally-advanced NSCLC is treated by combinations of radiotherapy, immunotherapy, chemotherapy and surgery. The majority of patients present with inoperable disease. Metastatic NSCLC is managed with systemic chemotherapy and immunotherapy.

The standard of care is evolving for NSCLC with the introduction of immunotherapies for patients without oncogenic driver mutations and new targeted therapies for patients with EGFR, ALK, ROS-1, NTRK or BRAF mutations. For patients with metastatic disease without oncogenic driver mutations, frontline platinum-based chemotherapy is combined with or, depending on PD-L1 expression status, replaced by, immunotherapy using anti-PD-1 or anti-PD-L1 monoclonal antibodies. For patients with metastatic disease harboring oncogenic driver mutations, several generations of targeted agents are available with different resistance profiles. Frontline therapy is often followed by relapse and recurrence and treatment options for these patients are substantially more limited. The standard of care of docetaxel alone or in combination with targeted agents has an overall response rate of 14-23%, median progression-free survival of 3-4 months and median overall survival of 9-12 months.

With PD-1 and PD-L1 inhibitors and next generation targeted therapies moving into frontline, the unmet need in recurrent lung cancer is expected to remain severe.

Breast cancer unmet need and epidemiology

Worldwide, breast cancer was the most common cancer with an incidence of approximately 2.3 million and estimated 685,000 deaths in 2020. The U.S. incidence was approximately 282,000 new cases with over 43,600 deaths in 2021. While patients with localized disease typically have a relatively good prognosis, the 5-year survival of patients with distant metastasis is only 29%. There are four main female breast cancer subtypes, which are, in order of prevalence: Hormone Receptor positive (HR+)/ Human Epidermal Growth Factor Receptor 2 negative (HER2-) (“Luminal A”), HR-/HER2- (“Triple Negative”), HR+/HER2+ (“Luminal B”), and HR-/HER2+ (“HER2-enriched”). Treatment choice is driven by both subtype and stage of disease. Surgical resection offers the best opportunity for long-term survival and cure in patients with resectable early-stage disease. Some patients receive radiation therapy and/or systemic therapy post-surgery, with treatment choice driven by cancer subtype.

Systemic therapy is the mainstay of treatment for metastatic breast cancer. Once again, the treatment choice is determined by cancer subtype and by what treatments patients have received previously. The primary treatment option for patients who are HR+ is endocrine therapy, including aromatase inhibitors. Patients who are HER2+ are usually treated with HER2 targeting agents such as trastuzumab and pertuzumab, among others. Other targeted agents that are used in metastatic breast cancer include CDK4/6 inhibitors, mTOR inhibitors, PARP inhibitors, PIK3CA inhibitor, immunotherapy and ADCs. Patients can also receive chemotherapies, alone or in combination with other agents. In addition, a number of new therapeutic options are under clinical investigation. Despite the availability of these treatment options, outcomes in metastatic breast cancer continue to be poor, and new treatments that improve survival and quality of life are urgently needed.

Strategic partnerships

Strategic partnerships with leading biopharmaceutical companies to advance Dolasynthen and Dolaflexin ADC product candidates

We believe that our ADC platforms have broad applicability across a number of targets. In February 2022, we entered into a research collaboration and license agreement with Janssen Biotech, Inc., or Janssen, to collaborate on the discovery of Dolasynthen ADCs for up to three antigen targets utilizing Janssen’s antibodies, with Janssen leading development, manufacturing and commercialization worldwide. We refer to this as the Janssen Collaboration. Our primary objective in entering into the Janssen Collaboration was to collaborate with a leading global pharmaceutical company to further validate the potential of our Dolasynthen platform, to enable novel ADC product candidates, to provide near-term funding and to drive significant long-term value. We have also used strategic partnering to accelerate bringing Dolaflexin ADCs to patients. In 2014, we entered into a collaboration with Merck KGaA for the development and commercialization of ADC product candidates

utilizing Dolaflexin for up to six target antigens; we refer to this as the Merck KGaA Collaboration. In entering into the Merck KGaA Collaboration, our primary objectives were to collaborate with leading pharmaceutical company to further validate the potential of ADC product candidates utilizing Dolaflexin, as well as to provide near-term funding and to drive significant long-term value. Under these collaboration agreements, we own the rights to any improvements to our ADC platform(s). The details of our material existing strategic partnerships are as follows:

Janssen Collaboration

In February 2022, we entered into the Janssen Collaboration pursuant to which we granted Janssen an exclusive license to use our proprietary Dolasynthen platform and other technology to develop, manufacture and commercialize antibody-drug conjugates directed to up to three targets selected by Janssen. Our responsibilities are to perform bioconjugation activities to create ADCs for Janssen based on antibodies provided by Janssen. We will also perform certain chemistry, manufacturing and controls development and early stage manufacturing activities for ADCs that Janssen progresses through development, up to and including the manufacturing of clinical drug substance, at Janssen's cost. Except with respect to this limited manufacturing, Janssen will be responsible for the further development, manufacturing and commercialization of the ADCs developed under the Janssen Collaboration, including obtaining any necessary regulatory approvals, at Janssen's cost.

Under the terms of the Janssen Collaboration, we received an upfront payment of $40 million. Certain development and regulatory milestones will also be payable by Janssen for the research programs, including upon certain discovery milestones, initiation of certain clinical trials, and regulatory approval of certain licensed products in certain geographies, with an aggregate total of up to $501 million in the event ADCs directed to all three targets are advanced by Janssen. In the event the ADCs developed by Janssen are commercialized, we are eligible to receive certain commercial milestones for each program upon the achievement of specified aggregate sales thresholds based on all ADCs for an applicable target, with an aggregate total of up to approximately $530 million in the event ADCs directed to all three targets are commercialized by Janssen. In addition, we are eligible to receive tiered royalties at percentages ranging from the mid-single digits to the low-double digits on future net sales of ADCs.

The Janssen Collaboration will remain in effect, unless earlier terminated, until the expiration of the last-to-expire royalty term for the last ADC. Royalty term means on an ADC-by-ADC and country-by-country basis, the period commencing upon the first commercial sale of an ADC in such country and ending upon the latest to occur of: (a) the date of expiration of the last royalty-bearing patent claim with respect to such ADC in such country; (b) the expiration of regulatory exclusivity for such ADC in such country, if any; and (c) the tenth (10th) anniversary of the first commercial sale of such ADC in such country. Upon the expiration of the royalty term with respect to an ADC in a country, Janssen's license becomes a perpetual, irrevocable, non-exclusive, fully-paid and royalty-free right and license, with the right to grant sublicenses, under the relevant platform technology and our interest in any joint technology to develop, manufacture, commercialize and otherwise exploit such ADC in such country.

Merck KGaA Collaboration

In June 2014, we entered into the Merck KGaA Collaboration under which we formed a strategic partnership with Merck KGaA because of their expertise in oncology drug development. Under this agreement, we are responsible for generating ADC product candidates against Merck KGaA-selected target antigens. Merck KGaA received rights to select up to six target antigens, of which it has selected all six. Merck KGaA is responsible for generating antibodies against the target antigens, and we are responsible for generating Dolaflexin and conjugating this to such antibodies to create the ADC product candidates. With respect to each target antigen selected by Merck KGaA, we granted Merck KGaA an exclusive, worldwide license under certain of our Fleximer ADC-related patents and know-how to develop, manufacture and commercialize ADC product candidates directed to such target antigen. Merck KGaA is then responsible for the further development and commercialization of these ADC product candidates. In addition, if Merck KGaA advances candidates, we are responsible for manufacturing these ADC product candidates for good laboratory practices toxicology studies and Phase 1 clinical trials at Merck KGaA's expense and Merck KGaA is responsible for all further manufacture of these ADC product candidates. Merck KGaA is required to pay its own costs in the development, commercialization and manufacture of these ADC product candidates and to reimburse us for our costs incurred in performing our research activities under this agreement.

Through December 31, 2021, we have received an upfront payment of $12 million and milestone payments of $3 million under the Merck KGaA Collaboration. If products are successfully developed and commercialized against all six target antigens, we would be entitled to receive future development, regulatory and commercial milestones of up to $777 million. We are entitled to receive tiered royalties in the low- to mid-single digit percentages on net sales of products targeting Merck KGaA's target

antigens during the applicable royalty term if products are successfully developed and commercialized by Merck KGaA under the Merck KGaA Collaboration.

Unless earlier terminated, the Merck KGaA Collaboration will expire upon the expiration of the last royalty term for a product under the agreement in all countries or, if Merck KGaA does not designate any ADC product candidates produced by us under the agreement as preclinical development candidates, upon the expiration of the last-to-expire research program. The royalty term means, on a product-by-product and country-by-country basis, the period commencing upon the first commercial sale of a product and ending upon the later to occur of: (i) the expiration of the last Mersana patent right that covers or claims the exploitation of such product in such country, or (ii) 10 years from the date of first commercial sale of such product in such country. Upon the expiration of each royalty term for each product on a country-by-country basis, Merck KGaA's exclusive license will convert to a perpetual, non-exclusive, royalty-free license with respect to such product in such country. Merck KGaA may terminate the Merck KGaA Collaboration in its entirety or with respect to any target antigen for convenience upon 60 days' prior written notice. Each party may terminate the Merck KGaA Collaboration in its entirety upon an uncured material breach of the agreement by the other party.

Asana Biosciences collaboration agreement

In March 2012, we entered to a collaboration agreement with Asana Biosciences, or Asana (by assignment from Endo Pharmaceuticals Inc.). Pursuant to the terms of this agreement, we used Asana's novel antibodies to develop novel ADCs using our fleximer technology. Asana is responsible for product development, manufacturing and commercialization of any ADC products.

Strategic partnerships to access antibodies and develop new platforms to progress our proprietary pipeline

Our focus is to progress our proprietary pipeline of ADCs. For this reason, we have partnered with biotechnology companies that have the capability to generate high quality antibodies or that have existing antibodies that we can license for inclusion in our ADCs. We have also entered into license agreements with biotechnology companies that own certain patent rights and related know-how that enable us to develop new ADC platforms. These strategic partnerships have facilitated the acceleration of our proprietary pipeline.

Recepta license for the NaPi2b antibody

In July 2015, we entered into a license agreement with Recepta Biopharma S.A., or Recepta, a Brazilian biopharmaceutical company, licensing Recepta's NaPi2b antibody for use in UpRi and XMT-1592 and granting Recepta the exclusive right to commercialize UpRi and XMT-1592 in Brazil, which was amended in September 2021. We refer to this as the Recepta License. Under the Recepta License, Recepta granted us an exclusive license and sub-license with respect to certain patents licensed by Recepta from Ludwig Institute for Cancer Research and technology owned by Recepta to develop and exploit products containing Recepta's NaPi2b antibody, including UpRi and XMT-1592, worldwide for the diagnosis, prophylaxis and treatment of human cancer. We granted Recepta an exclusive license under our rights in such patents and technology and certain of our ADC-related patents and technology to commercialize any such products developed by us, including UpRi and XMT-1592, in Brazil. We are responsible for using commercially reasonable efforts to develop and commercialize products under the Recepta License globally, with at least one trial site in our Phase 3 clinical trials, and at our own expense in certain major markets. Recepta may conduct development activities in Brazil at its own expense after providing us the opportunity to first conduct such activities at Recepta's expense. If a product is successfully developed and commercialized by Recepta in Brazil, we will use diligent efforts to enter into an agreement for the supply of such products to Recepta for sale in Brazil.

Under the Recepta License, we paid Recepta an upfront payment of $1 million during the year ended December 31, 2015 and are obligated to pay Recepta up to $65.5 million in development, regulatory and commercial milestones and tiered royalties in the low-single digit percentages on net sales of products outside of Brazil until the expiration of the royalty term if products are successfully developed and commercialized. Through December 31, 2021, we have incurred $4.0 million and paid $2.8 million in development milestone payments. We are entitled to receive tiered royalties in the low- to mid-single digit percentages on net sales of products in Brazil until the expiration of the royalty term if products are successfully developed and commercialized. The royalty term means, on a product-by-product and country-by-country basis, the period ending upon the later of (i) with respect to products commercialized by Mersana, the expiration of the last-to-expire Recepta patent that covers the product in such country (including the term of any applicable supplementary protection certificate) or with respect to products commercialized by Recepta, the expiration of the last-to-expire Mersana patent that covers the product in Brazil (including the term of any applicable supplementary protection certificate) or (ii) 10 years from the date of first commercial sale of such product in such country. Upon the expiration of each royalty term in each country for each applicable product, the exclusive

licenses granted to each party under the agreement will become fully-paid up and royalty-free. The Recepta License will remain in effect until otherwise terminated as set forth below. We may terminate the Recepta License for convenience in its entirety or on a country-by-country basis (except with respect to Brazil) or product-by-product basis upon 180 days' prior written notice for a termination in its entirety or upon 45 days' prior written notice for a termination in part. Each party may terminate the Recepta License in its entirety upon bankruptcy or similar proceedings of the other party, upon a patent challenge by the other party or upon an uncured material breach of the agreement by the other party. However, if such breach only relates to one country, the Recepta License may only be terminated with respect to such country.

Synaffix commercial license agreement

In January 2019, we entered into a commercial license agreement with Synaffix B.V., or Synaffix, which we amended and restated in November 2021 to expand our relationship with Synaffix. We refer to the amended and restated agreement as the Synaffix License. Under the Synaffix License, we have the right to develop, manufacture and commercialize ADCs directed to targets using Synaffix's proprietary site-specific conjugation technology for up to twelve targets. Through December 31, 2021, we have licensed two targets from Synaffix in connection with our development of XMT-1592 and XMT-1660, for which we have paid $1.5 million in license fees, and $0.8 million in milestone payments. We are required to make milestone payments to Synaffix of up to an aggregate of $28.0 million in development and regulatory milestones and up to $20.0 million in one-time sales milestones based on the achievement of annual sales objectives for each of these two targets. Additionally, we paid upfront fees of $2.5 million at the time of amending and restating the Synaffix License in November 2021, which may be applied to reservation and license fees associated with our selection of the next three targets. Upon licensing any future targets, we will be obligated to pay in the range of $48.0 million to $117.0 million for issuance, development, regulatory and one-time sales milestones. We further amended the Synaffix License in February 2022 in connection with the Janssen Collaboration and agreed to pay Synaffix an additional fee of $1.5 million which may be applied to future reservation and license fees, as well as certain portions of potential future development milestones.

Upon commencement of commercial sales of any ADC product directed to a licensed target, if any, we are required to pay to Synaffix tiered royalties in the low-single digit percentages on net sales of the respective products. The Synaffix License remains in effect on a country-by-country and licensed product-by-licensed product basis until the expiration of the last-to-expire valid claim in a patent licensed under the Synaffix License covering such product in such country. Upon the expiration of the Synaffix License for each licensed product in each country, the licenses granted to us for such product in such country will become fully paid-up and perpetual. We may terminate the Synaffix License in its entirety or on a licensed product-by-licensed product basis at any time. Either party may terminate the Synaffix License, subject to a specified notice and cure period, for a breach by the other party of a material provision of the agreement or upon an insolvency-related event experienced by the other party.

Manufacturing

We do not own or operate and currently have no plans to establish any current good manufacturing practices, or cGMP, compliant manufacturing facilities. We currently rely, and expect to continue to rely, on external Contract Manufacturing Organizations, or CMOs, for the manufacture of product to support our activities through regulatory approval and commercial manufacturing. We have personnel with pharmaceutical development and manufacturing experience who are responsible for the relationships with our CMOs. In the future, we expect to use these CMOs to manufacture commercial supply of our products, which will require these CMOs to increase scale of production. We do not currently have qualified alternate suppliers in the event the current CMOs that we utilize are unable to scale production for commercial manufacturing. The Dolaflexin, Dolasynthen and Immunosynthen manufacturing processes involve readily available starting materials and use unit operations that are well-precedented in the field of chemical/pharmaceutical production. The current UpRi supply chain utilizes the same vendors that we could use for commercialization. The current XMT-1592 supply chain utilizes the same vendors that we could use for commercialization with the exception of components necessary for the Synaffix bioconjugation technology, where the identification of a commercially capable vendor is ongoing. The current supply chains for XMT-1660 and XMT-2056 have several vendors in common, and based on what we know today, we believe we could use these vendors for commercialization purposes.

Government regulation

The research, development, testing, manufacture, quality control, packaging, labeling, storage, record-keeping, distribution, import, export, promotion, advertising, marketing, sale, pricing and reimbursement of drug and biologic products are extensively regulated by governmental authorities in the United States and other countries. The processes for obtaining regulatory approvals in the United States and in foreign countries and jurisdictions, along with compliance with applicable statutes and regulations and other regulatory requirements, both pre-approval and post-approval, require the expenditure of

substantial time and financial resources. The regulatory requirements applicable to biological product development, approval and marketing are subject to change, and regulations and administrative guidance often are revised or reinterpreted by the agencies in ways that may have a significant impact on our business.

U.S. government regulation of biological products

In the United States, the FDA licenses biological products, or biologics, under the Public Health Service Act, or the PHSA, and regulates such products under the Food, Drug and Cosmetic Act, or FDCA. A company, institution, or organization which takes responsibility for the initiation and management of a clinical development program for such products, and for their regulatory approval, is typically referred to as a sponsor. A sponsor seeking approval to market and distribute a new biologic in the United States must satisfactorily complete each of the following steps:

- completion of preclinical laboratory tests, animal studies and formulation studies according to good laboratory practices, or GLP, regulations or other applicable regulations;
- design of a clinical protocol and submission to the FDA of an IND, which must become effective before human clinical trials may begin and must be updated when certain changes are made;
- approval by an independent institutional review board, or IRB, or ethics committee representing each clinical trial site before each clinical trial may be initiated;
- performance of adequate and well-controlled human clinical trials in accordance with applicable IND regulations, good clinical practices, or GCPs, and other clinical-trial related regulations to evaluate the safety and efficacy of the investigational product for each proposed indication;
- preparation and submission to the FDA of a BLA requesting marketing approval for one or more proposed indications, including payment of application user fees;
- review of the BLA by an FDA advisory committee, where applicable;
- satisfactory completion of one or more FDA inspections of the manufacturing facility or facilities at which the biologic is produced to assess compliance with cGMP requirements to assure that the facilities, methods and controls are adequate to preserve the product's identity, strength, quality and purity;
- satisfactory completion of any FDA audits of clinical trial sites to assure compliance with GCPs and the integrity of the clinical data submitted in support of the BLA; and
- FDA review and approval of the BLA, which may be subject to additional post- approval requirements, including the potential requirement to implement a Risk Evaluation and Mitigation Strategy, or REMS, and any post- approval clinical trials required by the FDA.

Preclinical studies

Before a sponsor begins testing a product candidate with potential therapeutic value in humans, the product candidate enters the preclinical testing stage. Preclinical tests include laboratory evaluations of product chemistry, formulation and stability, as well as other studies to evaluate, among other things, the toxicity of the product candidate. The conduct of the preclinical tests and formulation of the compounds for testing must comply with federal regulations and requirements, including GLP regulations and standards and the United States Department of Agriculture's Animal Welfare Act, if applicable. The results of the preclinical tests, together with manufacturing information and analytical data, are submitted to the FDA as part of an IND.

Some long-term preclinical testing, such as animal tests of reproductive adverse events and carcinogenicity, and long-term toxicity studies, may continue after the IND is submitted.

The IND and IRB processes

An IND is an exemption from the FDCA that allows an unapproved product candidate to be shipped in interstate commerce for use in an investigational clinical trial and a request for FDA authorization to administer such investigational product to humans. An IND must be secured prior to interstate shipment and administration of any product candidate that is not the subject of an approved BLA. In support of a request for an IND, sponsors must submit a protocol for each clinical trial and any subsequent protocol amendments must be submitted to the FDA as part of the IND. An IND automatically becomes effective 30 days after receipt by the FDA, unless before that time the FDA raises concerns or questions related to one or more proposed clinical trials and places the trial on a clinical hold. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial may proceed. As a result, submission of an IND may not result in the FDA allowing clinical trials to commence.

Following commencement of a clinical trial under an IND, the FDA may also place a clinical hold or partial clinical hold on that trial. A clinical hold is an order issued by the FDA to the sponsor to delay a proposed clinical investigation or to suspend an ongoing investigation. A partial clinical hold is a delay or suspension of only part of the clinical work requested under the IND. For example, a partial clinical hold might state that a specific protocol or part of a protocol may not proceed, while other parts of a protocol or other protocols may do so. No more than 30 days after the imposition of a clinical hold or partial clinical hold, the FDA will provide the sponsor a written explanation of the basis for the hold. Following the issuance of a clinical hold or partial clinical hold, a clinical investigation may only resume once the FDA has notified the sponsor that the investigation may proceed. The FDA will base that determination on information provided by the sponsor correcting the deficiencies previously cited or otherwise satisfying the FDA that the investigation can proceed or recommence. Occasionally, clinical holds are imposed due to manufacturing issues that may present safety issues for the clinical trial subjects.

A sponsor may choose, but is not required, to conduct a foreign clinical trial under an IND. When a foreign clinical trial is conducted under an IND, all IND requirements must be met unless waived by the FDA. When a foreign clinical trial is not conducted under an IND, the sponsor must ensure that the trial complies with certain regulatory requirements of the FDA in order to use the trial data as support for an IND or application for marketing approval. Specifically, the trials must be conducted in accordance with GCP, including undergoing review and receiving approval by an independent ethics committee, or IEC, and seeking and receiving informed consent from subjects. GCP requirements encompass both ethical and data integrity standards for clinical trials. The FDA's regulations are intended to help ensure the protection of human subjects enrolled in non-IND foreign clinical trials, as well as the quality and integrity of the resulting data.

In addition to the foregoing IND requirements, an IRB representing each institution participating in the clinical trial must review and approve the plan for any clinical trial before it commences at that institution, and the IRB must conduct continuing review and re-approve the trial at least annually. The IRB, which must operate in compliance with FDA regulations, must review and approve, among other things, the clinical trial protocol and informed consent information to be provided to trial subjects and must monitor the trial until completed. An IRB can suspend or terminate approval of a clinical trial at its institution, or an institution it represents, if the clinical trial is not being conducted in accordance with the IRB's requirements or if the product candidate has been associated with unexpected serious harm to patients.

Additionally, some trials are overseen by an independent group of qualified experts organized by the trial sponsor, known as a data safety monitoring board, or DSMB. This group provides authorization as to whether or not a trial may move forward at designated checkpoints based on review of available data from the trial, to which only the DSMB maintains access. Suspension or termination of development during any phase of a clinical trial can occur if the DSMB determines that the participants or patients are being exposed to an unacceptable health risk.

Expanded access

Expanded access, sometimes called "compassionate use," is the use of investigational new products outside of clinical trials to treat patients with serious or immediately life-threatening diseases or conditions when there are no comparable or satisfactory alternative treatment options. The rules and regulations related to expanded access are intended to improve access to investigational products for patients who may benefit from investigational therapies. FDA regulations allow access to investigational products under an IND by the company or the treating physician for treatment purposes on a case-by-case basis for: individual patients (single-patient IND applications for treatment in emergency settings and non-emergency settings);

intermediate-size patient populations; and larger populations for use of the investigational product under a treatment protocol or Treatment IND Application.

When considering an IND application for expanded access to an investigational product with the purpose of treating a patient or a group of patients, the sponsor and treating physicians or investigators will determine suitability when all of the following criteria apply: patient(s) have a serious or immediately life-threatening disease or condition, and there is no comparable or satisfactory alternative therapy to diagnose, monitor, or treat the disease or condition; the potential patient benefit justifies the potential risks of the treatment and the potential risks are not unreasonable in the context or condition to be treated; and the expanded use of the investigational product for the requested treatment will not interfere with the initiation, conduct or completion of clinical investigations that could support marketing approval of the product or otherwise compromise the potential development of the product.

There is no obligation for a sponsor to make its investigational products available for expanded access; however, as required by amendments to the FDCA included in the 21st Century Cures Act, or the Cures Act, passed in 2016, if a sponsor has a policy regarding how it responds to expanded access requests with respect to product candidates in development to treat serious diseases or conditions, it must make that policy publicly available. Sponsors are required to make such policies publicly available upon the earlier of initiation of a Phase 2 or Phase 3 trial for a covered investigational product; or 15 days after the investigational product receives designation from the FDA as a breakthrough therapy, fast track product, or regenerative medicine advanced therapy.

In addition, on May 30, 2018, the Right to Try Act was signed into law. The law, among other things, provides a federal framework for certain patients to access certain investigational new products that have completed a Phase 1 clinical trial and that are undergoing investigation for FDA approval. Under certain circumstances, eligible patients can seek treatment without enrolling in clinical trials and without obtaining FDA permission under the FDA expanded access program. There is no obligation for a manufacturer to make its products available to eligible patients as a result of the Right to Try Act, but the manufacturer must develop an internal policy and respond to patient requests according to that policy.

Human clinical trials

Clinical trials involve the administration of the investigational product candidate to human subjects under the supervision of a qualified investigator in accordance with GCP requirements which include, among other things, the requirement that all research subjects provide their informed consent in writing before they participate in any clinical trial. Clinical trials are conducted under written clinical trial protocols detailing, among other things, the objectives of the trial, inclusion and exclusion criteria, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated. Each protocol, and any subsequent material amendment to the protocol, must be submitted to the FDA as part of the IND, and progress reports detailing the status of the clinical trials must be submitted to the FDA annually. The FDA has issued regulations authorizing a sponsor to transfer certain responsibilities for the conduct of a clinical trial to a contract research organization, or CRO.

Human clinical trials are typically conducted in three sequential phases, but the phases may overlap or be combined. Additional trials may also be required after approval.

Phase 1 clinical trials are initially conducted in a limited population, which may be healthy volunteers or subjects with the target disease, to test the product candidate for safety, including adverse effects, dose tolerance, absorption, metabolism, distribution, excretion and pharmacodynamics in healthy humans or in patients. During Phase 1 clinical trials, information about the product candidate’s pharmacokinetics and pharmacological effects may be obtained to permit the design of well-controlled and scientifically valid Phase 2 clinical trials.

Phase 2 clinical trials are generally conducted in a limited patient population to identify possible adverse effects and safety risks, evaluate the efficacy of the product candidate for specific targeted indications and determine dose tolerance and optimal dosage. Multiple Phase 2 clinical trials may be conducted by the sponsor to obtain information prior to beginning larger and more costly Phase 3 clinical trials. Phase 2 clinical trials are typically well-controlled and closely monitored.

Phase 3 clinical trials proceed if the Phase 2 clinical trials demonstrate that a dose range of the product candidate is potentially effective and has an acceptable safety profile. Phase 3 clinical trials are undertaken using a larger patient population to further evaluate dosage, provide substantial evidence of clinical efficacy and further test for safety in an expanded and diverse patient population at multiple geographically dispersed clinical trial sites. A well-controlled, statistically robust Phase 3 clinical trial may be designed to deliver the data that regulatory authorities will use to decide whether or not to approve, and, if approved, how to appropriately label a new biologic product. Such Phase 3 clinical trials are referred to as “pivotal” trials.

A clinical trial may combine the elements of more than one phase and the FDA often requires more than one Phase 3 trial to support marketing approval of a product candidate. A company's designation of a clinical trial as being of a particular phase is not necessarily indicative that the trial will be sufficient to satisfy the FDA requirements of that phase because this determination cannot be made until the protocol and data have been submitted to and reviewed by the FDA. Moreover, as noted above, a pivotal trial is a clinical trial that is believed to satisfy FDA requirements for the evaluation of a product candidate's safety and efficacy such that it can be used, alone or with other pivotal or non-pivotal trials, to support regulatory approval. Generally, pivotal trials are Phase 3 trials, but they may be Phase 2 trials if the design provides a well-controlled and reliable assessment of clinical benefit, particularly in an area of unmet medical need.

In some cases, the FDA may approve a BLA for a product candidate but require the sponsor to conduct additional clinical trials to further assess the product candidate's safety and effectiveness after approval. Such post-approval trials, typically referred to as Phase 4 clinical trials, may be conducted after initial marketing approval. These trials are used to gain additional experience from the treatment of a larger number of patients in the intended treatment group. In certain instances, the FDA may mandate the performance of Phase 4 clinical trials, such as to verify clinical benefit in the case of products approved under accelerated approval regulations. Failure to exhibit due diligence with regard to conducting mandatory Phase 4 clinical trials could result in withdrawal of FDA approval for products.

In August 2018, the FDA released a draft guidance entitled "Expansion Cohorts: Use in First-In-Human Clinical Trials to Expedite Development of Oncology Drugs and Biologics," which outlines how developers can utilize an adaptive trial design commonly referred to as a seamless trial design in early stages of oncology biological product development (i.e., the first-in-human clinical trial) to compress the traditional three phases of trials into one continuous trial called an expansion cohort trial. Information to support the design of individual expansion cohorts are included in IND applications and assessed by FDA. Expansion cohort trials can potentially bring efficiency to product development and reduce developmental costs and time.

Finally, sponsors of clinical trials are required to register and disclose certain clinical trial information on a public registry (clinicaltrials.gov) maintained by the U.S. National Institutes of Health, or NIH. In particular, information related to the product, patient population, phase of investigation, clinical trial sites and investigators and other aspects of the clinical trial is made public as part of the registration of the clinical trial. The NIH's Final Rule on registration and reporting requirements for clinical trials became effective in 2017, and both NIH and the FDA have recently signaled the government's willingness to begin enforcing those requirements against non-compliant clinical trial sponsors.

Interactions with FDA during the clinical development program

Following the clearance of an IND and the commencement of clinical trials, the sponsor will continue to have interactions with the FDA. Progress reports detailing the results of clinical trials must be submitted annually within 60 days of the anniversary dates that the IND went into effect and more frequently if serious adverse events occur. These reports must include a development safety update report, or DSUR. In addition, IND safety reports must be submitted to the FDA for any of the following: serious and unexpected suspected adverse reactions; findings from other trials or animal or *in vitro* testing that suggest a significant risk in humans exposed to the product; and any clinically important increase in the occurrence of a serious suspected adverse reaction over that listed in the protocol or investigator brochure. Phase 1, Phase 2 and Phase 3 clinical trials may not be completed successfully within any specified period, or at all. The FDA will typically inspect one or more clinical sites to assure compliance with GCP and the integrity of the clinical data submitted.

In addition, sponsors are given opportunities to meet with the FDA at certain points in the clinical development program. Specifically, sponsors may meet with the FDA prior to the submission of an IND (Pre-IND meeting), at the end of Phase 2 clinical trial (EOP2 meeting) and before a BLA is submitted (Pre-BLA meeting). Meetings at other times may also be requested. There are three types of meetings that occur between sponsors and the FDA. Type A meetings are those that are necessary for an otherwise stalled product development program to proceed or to address an important safety issue. Type B meetings include pre-IND and pre-BLA meetings, as well as end of phase meetings such as EOP2 meetings. A Type C meeting is any meeting other than a Type A or Type B meeting regarding the development and review of a product, including for example meetings to facilitate early consultations on the use of a biomarker as a new surrogate endpoint that has never been previously used as the primary basis for product approval in the proposed context of use.

Manufacturing and other regulatory requirements

Concurrent with clinical trials, sponsors usually complete additional animal safety studies, develop additional information about the chemistry and physical characteristics of the product candidate and finalize a process for manufacturing commercial quantities of the product candidate in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the product candidate and, among other criteria, the sponsor must develop methods

for testing the identity, strength, quality, and purity of the finished product. Additionally, appropriate packaging must be selected and tested, and stability studies must be conducted to demonstrate that the product candidate does not undergo unacceptable deterioration over its shelf life.

Specifically, the FDA's regulations require that pharmaceutical products be manufactured in specific approved facilities and in accordance with cGMPs. The cGMP regulations include requirements relating to organization of personnel, buildings and facilities, equipment, control of components and product containers and closures, production and process controls, packaging and labeling controls, holding and distribution, laboratory controls, records and reports and returned or salvaged products. Manufacturers and other entities involved in the manufacture and distribution of approved pharmaceuticals are required to register their establishments with the FDA and some state agencies, and they are subject to periodic unannounced inspections by the FDA for compliance with cGMPs and other requirements. Inspections must follow a "risk-based schedule" that may result in certain establishments being inspected more frequently. Manufacturers may also have to provide, on request, electronic or physical records regarding their establishments. Delaying, denying, limiting, or refusing inspection by the FDA may lead to a product being deemed to be adulterated. Changes to the manufacturing process, specifications or container closure system for an approved product are strictly regulated and often require prior FDA approval before being implemented. The FDA's regulations also require, among other things, the investigation and correction of any deviations from cGMP and the imposition of reporting and documentation requirements upon the sponsor and any third-party manufacturers involved in producing the approved product.

Pediatric trials

Under the Pediatric Research Equity Act, or PREA, applications and certain types of supplements to applications 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 sponsor must submit an initial Pediatric Study Plan, or PSP, within 60 days of an end-of-phase 2 meeting or as may be agreed between the sponsor and the FDA. Those plans must contain an outline of the proposed pediatric clinical trial or trials that the sponsor plans to conduct, including trial objectives and design, age groups, relevant endpoints and statistical approach, or a justification for not including such detailed information, and any request for a deferral of pediatric assessments or a full or partial waiver of the requirement to provide data from pediatric trials along with supporting information. The sponsor and the FDA must reach agreement on a final plan. A sponsor can submit amendments to an agreed-upon initial PSP at any time if changes to the pediatric plan need to be considered based on data collected from nonclinical studies, early phase clinical trials, and/or other clinical development programs.

For investigational products intended to treat a serious or life-threatening disease or condition, the FDA must, upon the request of a sponsor, meet to discuss preparation of the initial PSP or to discuss deferral or waiver of pediatric assessments. In addition, the FDA will meet early in the development process to discuss pediatric study plans with sponsors, and the FDA must meet with sponsors by no later than the end-of-phase 1 meeting for serious or life-threatening diseases and by no later than ninety days after the FDA's receipt of the PSP.

The FDA may, on its own initiative or at the request of the sponsor, 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. A deferral may be granted for several reasons, including a finding that the product or therapeutic candidate is ready for approval for use in adults before pediatric trials are complete or that additional safety or effectiveness data needs to be collected before the pediatric trials begin. The law now requires the FDA to send a PREA Non-Compliance letter to sponsors who have failed to submit their pediatric assessments required under PREA, have failed to seek or obtain a deferral or deferral extension or have failed to request approval for a required pediatric formulation. Unless otherwise required by regulation, the pediatric data requirements do not apply to products with orphan designation, although FDA has recently taken steps to limit what it considers abuse of this statutory exemption in PREA. The FDA also maintains a list of diseases that are exempt from PREA requirements due to low prevalence of disease in the pediatric population.

Expedited review programs

The FDA is authorized to expedite the review of applications in several ways. Under the Fast Track program, the sponsor of a product candidate may request the FDA to designate the product for a specific indication as a Fast Track product concurrent with or after the filing of the IND. Candidate products are eligible for Fast Track designation if they are intended to treat a serious or life-threatening condition and demonstrate the potential to address unmet medical needs for the condition. Fast Track designation applies to the combination of the product candidate and the specific indication for which it is being studied. In

addition to other benefits, such as the ability to have greater interactions with the FDA, the FDA may initiate review of sections of a Fast Track application before the application is complete, a process known as rolling review.

Any product candidate submitted to the FDA for marketing, including under a Fast Track program, may be eligible for other types of FDA programs intended to expedite development and review, such as breakthrough therapy designation, priority review and accelerated approval.

- *Breakthrough therapy designation.* To qualify for the breakthrough therapy program, product candidates must be intended to treat a serious or life-threatening disease or condition and preliminary clinical evidence must indicate that such product candidates may demonstrate substantial improvement on one or more clinically significant endpoints over existing therapies. The FDA will seek to ensure the sponsor of a breakthrough therapy product candidate receives intensive guidance on an efficient development program, intensive involvement of senior managers and experienced staff on a proactive, collaborative and cross-disciplinary review and rolling review.

- *Priority review.* A product candidate is eligible for priority review if it treats a serious condition and, if approved, it would be a significant improvement in the safety or effectiveness of the treatment, diagnosis or prevention compared to marketed products. FDA aims to complete its review of priority review applications within six months as opposed to 10 months for standard review.

- *Accelerated approval.* Biologic products studied for their safety and effectiveness in treating serious or life-threatening illnesses and that provide meaningful therapeutic benefit over existing treatments may receive accelerated approval. Accelerated approval means that a product candidate may be approved on the basis of adequate and well controlled clinical trials establishing that the product candidate has an effect on a surrogate endpoint that is reasonably likely to predict a clinical benefit, or on the basis of an effect on a clinical endpoint other than survival or irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity and prevalence of the condition and the availability or lack of alternative treatments. As a condition of approval, the FDA may require that a sponsor of a biologic product candidate receiving accelerated approval perform adequate and well controlled post-marketing clinical trials. In addition, the FDA currently requires as a condition for accelerated approval pre-approval of promotional materials.

- *Regenerative advanced therapy.* With passage of the 21st Century Cures Act, or the Cures Act, in December 2016, Congress authorized the FDA to accelerate review and approval of products designated as regenerative advanced therapies. A product is eligible for this designation if it is a regenerative medicine therapy that is intended to treat, modify, reverse or cure a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the product candidate has the potential to address unmet medical needs for such disease or condition. The benefits of a regenerative advanced therapy designation include early interactions with the FDA to expedite development and review, benefits available to breakthrough therapies, potential eligibility for priority review and accelerated approval based on surrogate or intermediate endpoints.

None of these expedited programs changes the standards for approval but each may help expedite the development or approval process governing product candidates.

Submission and filing of BLAs

Assuming successful completion of the required clinical testing, the results of the preclinical studies and clinical trials, along with information relating to the product's chemistry, manufacturing, controls, safety updates, patent information, abuse information and proposed labeling, are submitted to the FDA as part of an application requesting approval to market the product candidate for one or more indications. To support marketing approval, the data submitted must be sufficient in quality and quantity to establish the safety, potency and purity of the biological product to the satisfaction of the FDA. The fee required for the submission and review of an application under the Prescription Drug User Fee Act, or PDUFA, is substantial (for example, for FY2022 this application fee is approximately $3.1 million), and the sponsor of an approved application is also subject to an annual program fee, currently more than $369,000 per eligible prescription product. These fees are typically adjusted annually, and exemptions and waivers may be available under certain circumstances, including where the applicant is a small business submitting its first human therapeutic application for review.

The FDA conducts a preliminary review of all applications within 60 days of receipt and must inform the sponsor at that time or before whether an application is sufficiently complete to permit substantive review. In pertinent part, FDA's regulations state that an application "shall not be considered as filed until all pertinent information and data have been received" by the FDA. In the event that FDA determines that an application does not satisfy this standard, it will issue a Refuse to File, or RTF,

determination to the applicant. Typically, an RTF will be based on administrative incompleteness, such as clear omission of information or sections of required information such that substantive and meaningful review is precluded. The FDA may request additional information rather than accept an application for filing. In this event, the application must be resubmitted with the additional information. The resubmitted application is also subject to review before the FDA accepts it for filing.

After the submission is accepted for filing, the FDA begins an in-depth substantive review of the application. The FDA reviews the application to determine, among other things, whether the proposed product is safe and effective for its intended use, whether it has an acceptable purity profile and whether the product is being manufactured in accordance with cGMP. Under the goals and policies agreed to by the FDA under PDUFA, the FDA has ten months from the filing date in which to complete its initial review of a standard application that is a new molecular entity, and six months from the filing date for an application with "priority review." The review process may be extended by the FDA for three additional months to consider new information or in the case of a clarification provided by the applicant to address an outstanding deficiency identified by the FDA following the original submission. Despite these review goals, it is not uncommon for FDA review of an application to extend beyond the PDUFA goal date.

In connection with its review of an application, the FDA will typically submit information requests to the applicant and set deadlines for responses thereto. The FDA will also conduct a pre-approval inspection of the manufacturing facilities for the new product to determine whether the manufacturing processes and facilities comply with cGMPs. The FDA will not approve the product unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and are adequate to assure consistent production of the product within required specifications. The FDA also may inspect the sponsor and one or more clinical trial sites to assure compliance with IND and GCP requirements and the integrity of the clinical data submitted to the FDA.

Additionally, the FDA may refer an application, including applications for novel product candidates which present difficult questions of safety or efficacy, to an advisory committee for review, evaluation and recommendation as to whether the application should be approved and under what conditions. Typically, an advisory committee is a panel of independent experts, including clinicians and other scientific experts that reviews, evaluates and provides a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendation of an advisory committee, but it considers such recommendations when making final decisions on approval.

The FDA also may require submission of a REMS if it determines that a REMS is necessary to ensure that the benefits of the product outweigh its risks and to assure the safe use of the product. The REMS could include medication guides, physician communication plans, assessment plans and/or elements to assure safe use, such as restricted distribution methods, patient registries or other risk minimization tools. The FDA determines the requirement for a REMS, as well as the specific REMS provisions, on a case-by-case basis. If the FDA concludes a REMS is needed, the sponsor of the application must submit a proposed REMS and the FDA will not approve the application without a REMS.

Decisions on BLAs

After evaluating the application and all related information, including the advisory committee recommendations, if any, and inspection reports of manufacturing facilities and clinical trial sites, the FDA will issue either a Complete Response Letter, or CRL, or an approval letter. To reach this determination, the FDA must determine that the expected benefits of the proposed product outweigh its potential risks to patients. This assessment is informed by the severity of the underlying condition and how well patients' medical needs are addressed by currently available therapies; uncertainty about how the premarket clinical trial evidence will extrapolate to real-world use of the product in the post-market setting; and whether risk management tools are necessary to manage specific risks.

A CRL indicates that the review cycle of the application is complete, and the application will not be approved in its present form. A CRL generally outlines the deficiencies in the submission and may require substantial additional testing or information in order for the FDA to reconsider the application. The CRL may require additional clinical or other data, additional pivotal Phase 3 clinical trial(s) and/or other significant and time- consuming requirements related to clinical trials, preclinical studies or manufacturing. If a CRL is issued, the applicant will have one year to respond to the deficiencies identified by the FDA, at which time the FDA can deem the application withdrawn or, in its discretion, grant the applicant an additional six month extension to respond. The FDA has committed to reviewing resubmissions in response to an issued CRL in either two or six months depending on the type of information included. Even with the submission of this additional information, however, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval.

An approval letter, on the other hand, authorizes commercial marketing of the product with specific prescribing information for specific indications. That is, the approval will be limited to the conditions of use (e.g., patient population, indication) described

in the FDA-approved labeling. Further, depending on the specific risk(s) to be addressed, the FDA may require that contraindications, warnings or precautions be included in the product labeling, require that post-approval trials, including Phase 4 clinical trials, be conducted to further assess a product's safety after approval, require testing and surveillance programs to monitor the product after commercialization or impose other conditions, including distribution and use restrictions or other risk management mechanisms under a REMS which can materially affect the potential market and profitability of the product. The FDA may prevent or limit further marketing of a product based on the results of post-marketing trials or surveillance programs. After approval, some types of changes to the approved product, such as adding new indications, manufacturing changes and additional labeling claims, are subject to further testing requirements and FDA review and approval.

Post-approval requirements

Following approval of a new prescription product, the manufacturer, the approved product and the product's manufacturing locations are subject to pervasive and continuing regulation by the FDA, governing, among other things, monitoring and record-keeping activities, reporting of adverse experiences with the product and product problems to the FDA, product sampling and distribution, manufacturing and promotion and advertising. Although physicians may prescribe legally available products for unapproved uses or patient populations (i.e., "off-label uses"), manufacturers may not market or promote such uses. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant liability. In September 2021, the FDA published final regulations which describe the types of evidence that the agency will consider in determining the intended use of a biologic.

If a company is found to have promoted off-label uses, it may become subject to administrative and judicial enforcement by the FDA, the Department of Justice, or the Office of the Inspector General of the Department of Health and Human Services, as well as state authorities. This could subject a company to a range of penalties that could have a significant commercial impact, including civil and criminal fines and agreements that materially restrict the manner in which a company promotes or distributes products, as well as adverse public relations and reputational harm. The federal government has levied large civil and criminal fines against companies for alleged improper promotion, and has also requested that companies enter into consent decrees or permanent injunctions under which specified promotional conduct is changed or curtailed.

Further, if there are any modifications to the product, including changes in indications, labeling or manufacturing processes or facilities, the sponsor may be required to submit and obtain FDA approval of a new application or supplement, which may require the sponsor to develop additional data or conduct additional preclinical studies and clinical trials. Securing FDA approval for new indications is similar to the process for approval of the original indication and requires, among other things, submitting data from adequate and well-controlled clinical trials to demonstrate the product's safety and efficacy in the new indication. Even if such trials are conducted, the FDA may not approve any expansion of the labeled indications for use in a timely fashion, or at all. There also are continuing, annual user fee requirements that are now assessed as program fees for certain products.

In addition, the FDA may withdraw the approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in mandatory revisions to the approved labeling to add new safety information, imposition of post-market clinical trials requirement to assess new safety risks or imposition of distribution or other restrictions under a REMS program.

Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of the product, complete withdrawal of the product from the market or product recalls;
- safety alerts, Dear Healthcare Provider letters, press releases or other communications containing warnings or other safety information about a product;
- mandated modification of promotional materials and labeling and issuance of corrective information;
- fines, warning letters, untitled letters or other enforcement-related letters or clinical holds on post-approval clinical trials;

- refusal of the FDA to approve pending applications or supplements to approved applications, or suspension or revocation of product approvals;
- product seizure or detention, or refusal to permit the import or export of products;
- injunctions or the imposition of civil or criminal penalties; and
- consent decrees, corporate integrity agreements, debarment, or exclusion from federal health care programs.

Regulatory exclusivity governing biologics

When a biological product is licensed for marketing by FDA with approval of a BLA, the product may be entitled to certain types of market and data exclusivity barring FDA from approving competing products for certain periods of time. In March 2010, the Patient Protection and Affordable Care Act was enacted in the United States and included the Biologics Price Competition and Innovation Act of 2009, or the BPCIA. The BPCIA amended the PHSA to create an abbreviated approval pathway for biological products that are biosimilar to or interchangeable with an FDA-licensed reference biological product. To date, the FDA has approved a number of biosimilars and the first interchangeable biosimilar product was approved on July 30, 2021 and a second product previously approved as a biosimilar was designated as interchangeable in October 2021.

Under the BPCIA, a manufacturer may submit an application for a product that is "biosimilar to" a previously approved biological product, which the statute refers to as a "reference product." In order for the FDA to approve a biosimilar product, it must find that there are no clinically meaningful differences between the reference product and the proposed biosimilar product in terms of safety, purity and potency. The biosimilar sponsor may demonstrate that its product is biosimilar to the reference product on the basis of data from analytical studies, animal studies and one or more clinical trials to demonstrate safety, purity and potency in one or more appropriate conditions of use for which the reference product is approved.

For the FDA to approve a biosimilar product as interchangeable with a reference product, the agency must find not only that the product is biosimilar to the reference product but also that it can be expected to produce the same clinical results as the reference product such that the two products may be switched without increasing safety risks or risks of diminished efficacy relative to exclusive use of the reference biologic. Upon licensure by the FDA, an interchangeable biosimilar may be substituted for the reference product without the intervention of the health care provider who prescribed the reference product. Following approval of the interchangeable biosimilar product, the FDA may not grant interchangeability status for any second biosimilar until one year after the first commercial marketing of the first interchangeable biosimilar product.

A reference biological product is granted 12 years of exclusivity from the time of first licensure of the product, and the FDA will not accept an application for a biosimilar or interchangeable product based on the reference biological product until four years after the date of first licensure of the reference product. Even if a product is considered to be a reference product eligible for exclusivity, however, another company could market a competing version of that product if the FDA approves a full 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 government proposals to reduce the 12-year reference product exclusivity period, but none has been enacted to date. At the same time, since passage of the BPCIA, many states have passed laws or amendments to laws, which address pharmacy practices involving biosimilar products.

Orphan drug designation and exclusivity

Orphan drug designation in the United States is designed to encourage sponsors to develop products intended for treatment of rare diseases or conditions. In the United States, a rare disease or condition is statutorily defined as a condition that affects fewer than 200,000 individuals in the United States or that affects more than 200,000 individuals in the United States and for which there is no reasonable expectation that the cost of developing and making available the product for the disease or condition will be recovered from sales of the product in the United States.

Orphan drug designation qualifies a company for tax credits and potentially market exclusivity for seven years following the date of the product's approval if granted by the FDA. An application for designation as an orphan product can be made any time prior to the filing of an application for approval to market the product. A product becomes an orphan when it receives orphan drug designation from the Office of Orphan Products Development at the FDA based on acceptable confidential requests. The product must then go through the review and approval process like any other product.

A sponsor may request orphan drug designation of a previously unapproved product or new orphan indication for an already marketed product. In addition, a sponsor of a product that is otherwise the same product as an already approved orphan drug

may seek and obtain orphan drug designation for the subsequent product for the same rare disease or condition if it can present a plausible hypothesis that its product may be clinically superior to the first approved product. More than one sponsor may receive orphan drug designation for the same product for the same rare disease or condition, but each sponsor seeking orphan drug designation must file a complete request for designation.

If a product with orphan designation receives the first FDA approval for the disease or condition for which it has such designation or for a select indication or use within the rare disease or condition for which it was designated, the product generally will receive orphan drug exclusivity. Orphan drug exclusivity means that the FDA may not approve another sponsor's marketing application for the same product for the same disease or condition for seven years, except in certain limited circumstances. If a product designated as an orphan drug ultimately receives marketing approval for an indication broader than what was designated in its orphan drug application, it may not be entitled to exclusivity.

The period of market exclusivity begins on the date that the marketing application is approved by the FDA and applies only to the disease or condition for which the product has been designated. Orphan drug exclusivity will not bar approval of another product under certain circumstances, including if the company with orphan drug exclusivity is not able to meet market demand or the subsequent product is shown to be clinically superior to the approved product on the basis of greater efficacy or safety, or providing a major contribution to patient care. Under Omnibus legislation signed by President Trump on December 27, 2020, the requirement for a product to show clinical superiority applies to drug products that received orphan drug designation before enactment of amendments to the FDCA in 2017 but have not yet been approved by FDA.

In September 2021, the Court of Appeals for the 11th Circuit held that, for the purpose of determining the scope of market exclusivity, the term "same disease or condition" in the statute means the designated "rare disease or condition" and could not be interpreted by the FDA to mean the "indication or use." Thus, the court concluded, orphan drug exclusivity applies to the entire designated disease or condition rather than the "indication or use." It is unclear how this court decision will be implemented by the FDA.

Pediatric exclusivity

Pediatric exclusivity is a type of non-patent marketing exclusivity in the United States and, if granted, provides for the attachment of an additional six months of exclusivity. For biologic products, the six month period may be attached to any existing regulatory exclusivities but not to any patent terms. The conditions for pediatric exclusivity include the FDA's determination that information relating to the use of a new product in the pediatric population may produce health benefits in that population, the FDA making a written request for pediatric clinical trials, and the sponsor agreeing to perform, and reporting on, the requested clinical trials within the statutory timeframe. This six-month exclusivity may be granted if a sponsor submits pediatric data that fairly respond to a written request from the FDA for such data. The data do not need to show the product to be effective in the pediatric population studied. If reports of requested pediatric studies are submitted to and accepted by the FDA within the statutory time limits, whatever statutory or regulatory periods of exclusivity or patents that cover the product are extended by six months. Although this is not a patent term extension, it effectively extends the regulatory period during which the FDA cannot approve another application.

Patent term restoration and extension

In the United States, a patent claiming a new product, its method of use or its method of manufacture may be eligible for a limited patent term extension under the Hatch-Waxman Act, which permits a patent extension of up to five years for patent term lost during product development and FDA regulatory review. Assuming grant of the patent for which the extension is sought, the restoration period for a patent covering a product is typically one-half the time between the effective date of the IND involving human beings and the submission date of the BLA, plus the time between the submission date of the application and the ultimate approval date. Patent term restoration cannot be used to extend the remaining term of a patent past a total of 14 years from the product's approval date in the United States. Only one patent applicable to an approved product is eligible for the extension, and the application for the extension must be submitted prior to the expiration of the patent for which extension is sought. A patent that covers multiple products for which approval is sought can only be extended in connection with one of the approvals. The USPTO reviews and approves the application for any patent term extension in consultation with the FDA.

Companion diagnostics

In August 2014, the FDA issued final guidance clarifying the requirements that will apply to approval of therapeutic products and *in vitro* companion diagnostics. According to the guidance, for novel biologics, a companion diagnostic device and its corresponding therapeutic should be approved or cleared contemporaneously by the FDA for the use indicated in the therapeutic product's labeling. Approval or clearance of the companion diagnostic device will ensure that the device has been

adequately evaluated and has adequate performance characteristics in the intended population. In July 2016, the FDA issued a draft guidance intended to assist sponsors of the therapeutic product and *in vitro* companion diagnostic device on issues related to co-development of the products.

The 2014 guidance also explains that a companion diagnostic device used to make treatment decisions in clinical trials of a biologic product candidate generally will be considered an investigational device, unless it is employed for an intended use for which the device is already approved or cleared. If used to make critical treatment decisions, such as patient selection, the diagnostic device generally will be considered a significant risk device under the FDA's Investigational Device Exemption, or IDE, regulations. Thus, the sponsor of the diagnostic device will be required to comply with the IDE regulations. According to the guidance, if a diagnostic device and a product are to be studied together to support their respective approvals, both products can be studied in the same investigational study, if the study meets both the requirements of the IDE regulations and the IND regulations. The guidance provides that depending on the details of the study plan and subjects, a sponsor may seek to submit an IND application alone, or both an IND- and IDE-application.

In April 2020, the FDA issued additional guidance which describes considerations for the development and labeling of companion diagnostic devices to support the indicated uses of multiple biological oncology products, when appropriate. This guidance builds upon existing policy regarding the labeling of companion diagnostics. In its 2014 guidance, the FDA stated that if evidence is sufficient to conclude that the companion diagnostic is appropriate for use with a specific group of therapeutic products, the companion diagnostic's intended use/indications for use should name the specific group of therapeutic products, rather than specific products. The 2020 guidance expands on the policy statement in the 2014 guidance by recommending that companion diagnostic developers consider a number of factors when determining whether their test could be developed, or the labeling for approved companion diagnostics could be revised through a supplement, to support a broader labeling claim such as use with a specific group of oncology therapeutic products (rather than listing an individual therapeutic product(s)).

Under the FDCA, *in vitro* diagnostics, including companion diagnostics, are regulated as medical devices. In the United States, the FDCA and its implementing regulations, and other federal and state statutes and regulations govern, among other things, medical device design and development, preclinical and clinical testing, premarket clearance or approval, registration and listing, manufacturing, labeling, storage, advertising and promotion, sales and distribution, export and import and post-market surveillance. Unless an exemption applies, diagnostic tests require pre-notification marketing clearance or approval from the FDA prior to commercial distribution.

The FDA previously has required *in vitro* companion diagnostics intended to select the patients who will respond to the product candidate to obtain pre-market approval, or PMA, simultaneously with approval of the therapeutic product candidate. The PMA process, including the gathering of clinical and preclinical data and the submission to and review by the FDA, can take several years or longer. It involves a rigorous premarket review during which the sponsor must prepare and provide the FDA with reasonable assurance of the device's safety and effectiveness and information about the device and its components regarding, among other things, device design, manufacturing and labeling. PMA applications are subject to an application fee.

Healthcare compliance

In the United States, biopharmaceutical manufacturers and their products are subject to extensive regulation at the federal and state level, such as laws intended to prevent fraud and abuse in the healthcare industry. Healthcare providers and third-party payors play a primary role in the recommendation and prescription of pharmaceutical products that are granted marketing approval. Arrangements with providers, consultants, third-party payors, and customers are subject to broadly applicable fraud and abuse, anti-kickback, false claims laws, reporting of payments to healthcare providers and patient privacy laws and regulations and other healthcare laws and regulations that may constrain our business and/or financial arrangements. Restrictions under applicable federal and state healthcare laws and regulations, including certain laws and regulations applicable only if we have marketed products, include the following:

- federal false claims, false statements and civil monetary penalties laws prohibiting, among other things, any person from knowingly presenting, or causing to be presented, a false claim for payment of government funds or knowingly making, or causing to be made, a false statement to get a false claim paid;

- federal healthcare program anti-kickback law, which prohibits, among other things, persons from offering, soliciting, receiving or providing remuneration, directly or indirectly, to induce either the referral of an individual for, or the purchasing or ordering of, a good or service for which payment may be made under federal healthcare programs such as Medicare and Medicaid;

- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which, in addition to privacy protections applicable to healthcare providers and other entities, prohibits executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters;

- federal laws that require pharmaceutical manufacturers to report certain calculated product prices to the government or provide certain discounts or rebates to government authorities or private entities, often as a condition of reimbursement under government healthcare programs;

- federal Open Payments (or federal "sunshine" law), which requires pharmaceutical and medical device companies to monitor and report certain financial interactions with certain healthcare providers to the Center for Medicare & Medicaid Services, or CMS, within the U.S. Department of Health and Human Services, or HHS, for re-disclosure to the public, as well as ownership and investment interests held by certain healthcare providers and their immediate family members;

- federal consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm consumers;

- analogous state laws and regulations, including: state anti-kickback and false claims laws; state laws requiring pharmaceutical companies to comply with specific compliance standards, restrict financial interactions between pharmaceutical companies and healthcare providers or require pharmaceutical companies to report information related to payments to health care providers or marketing expenditures; and state laws governing privacy, security and breaches of health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts; and

- laws and regulations prohibiting bribery and corruption such as the Foreign Corrupt Practices Act, which, among other things, prohibits U.S. companies and their employees and agents from authorizing, promising, offering, or providing, directly or indirectly, corrupt or improper payments or anything else of value to foreign government officials, employees of public international organizations or foreign government-owned or affiliated entities, candidates for foreign public office, and foreign political parties or officials thereof.

Violations of these laws are punishable by criminal and/or civil sanctions, including, in some instances, exclusion from participation in federal and state health care programs, such as Medicare and Medicaid. Ensuring compliance is time consuming and costly. Similar healthcare laws and regulations exist in the European Union and other jurisdictions, including reporting requirements detailing interactions with and payments to healthcare providers and laws governing the privacy and security of personal information.

Healthcare reform

A primary trend in the U.S. healthcare industry and elsewhere is cost containment. There have been a number of federal and state proposals during the last few years regarding the pricing of pharmaceutical products, limiting coverage and reimbursement for medical products and other changes to the healthcare system in the United States.

In March 2010, the United States Congress enacted the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, or collectively the PPACA, which, among other things, includes changes to the coverage and payment for pharmaceutical products under government healthcare programs. Other legislative changes have been proposed and adopted since the PPACA was enacted. In August 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. These changes included aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, which went into effect in April 2013 and will remain in effect through 2031. These Medicare sequester reductions have been suspended through the end of March 2022. From April 2022 through June 2022, a 1% sequester cut will be in effect, with the full 2% cut resuming thereafter.

Since enactment of the PPACA, there have been, and continue to be, numerous legal challenges and Congressional actions to repeal and replace provisions of the law. For example, with enactment of the Tax Cuts and Jobs Act of 2017, or the Tax Act, which was signed by President Trump on December 22, 2017, Congress repealed the "individual mandate." The repeal of this provision, which requires most Americans to carry a minimal level of health insurance, became effective in 2019. On December

14, 2018, a U.S. District Court judge in the Northern District of Texas ruled that the individual mandate portion of the PPACA is an essential and inseverable feature of the PPACA, and therefore because the mandate was repealed as part of the Tax Act, the remaining provisions of the PPACA are invalid as well. The U.S. Supreme Court heard this case on November 10, 2020 and, on June 17, 2021, dismissed this action after finding that the plaintiffs do not have standing to challenge the constitutionality of the ACA. Litigation and legislation over the PPACA are likely to continue, with unpredictable and uncertain results.

The Trump Administration also took executive actions to undermine or delay implementation of the PPACA, including directing federal agencies with authorities and responsibilities under the PPACA to waive, defer, grant exemptions from, or delay the implementation of any provision of the PPACA that would impose a fiscal or regulatory burden on states, individuals, healthcare providers, health insurers, or manufacturers of pharmaceuticals or medical devices. On January 28, 2021, however, President Biden rescinded those orders and issued a new executive order that directs federal agencies to reconsider rules and other policies that limit access to healthcare, and consider actions that will protect and strengthen that access. Under this order, federal agencies are directed to re-examine: policies that undermine protections for people with pre-existing conditions, including complications related to COVID-19; demonstrations and waivers under Medicaid and the PPACA that may reduce coverage or undermine the programs, including work requirements; policies that undermine the Health Insurance Marketplace or other markets for health insurance; policies that make it more difficult to enroll in Medicaid and under the PPACA; and policies that reduce affordability of coverage or financial assistance, including for dependents.

Pharmaceutical prices

The prices of prescription pharmaceuticals have also been the subject of considerable discussion in the United States. There have been several recent U.S. congressional inquiries, as well as proposed and enacted state and federal legislation designed to, among other things, bring more transparency to pharmaceutical pricing, review the relationship between pricing and manufacturer patient programs, and reduce the costs of pharmaceuticals under Medicare and Medicaid. In 2020, President Trump issued several executive orders intended to lower the costs of prescription products and certain provisions in these orders have been incorporated into regulations. These regulations include an interim final rule implementing a most favored nation model for prices that would tie Medicare Part B payments for certain physician-administered pharmaceuticals to the lowest price paid in other economically advanced countries, effective January 1, 2021. That rule, however, has been subject to a nationwide preliminary injunction and, on December 29, 2021, CMS issued a final rule to rescind it. With issuance of this rule, CMS stated that it will explore all options to incorporate value into payments for Medicare Part B pharmaceuticals and improve beneficiaries' access to evidence-based care.

In addition, in October 2020, the HHS and the FDA published a final rule allowing states and other entities to develop a Section 804 Importation Program, or SIP, to import certain prescription products from Canada into the United States. The final rule is currently the subject of ongoing litigation, but at least six states (Vermont, Colorado, Florida, Maine, New Mexico, and New Hampshire) have passed laws allowing for the importation of products from Canada with the intent of developing SIPs for review and approval by the FDA. Further, on November 20, 2020, HHS finalized a regulation removing safe harbor protection for price reductions from pharmaceutical manufacturers to plan sponsors under Part D, either directly or through pharmacy benefit managers, unless the price reduction is required by law. The implementation of the rule has been delayed by the Biden administration from January 1, 2022 to January 1, 2023 in response to ongoing litigation. The rule also creates a new safe harbor for price reductions reflected at the point-of-sale, as well as a new safe harbor for certain fixed fee arrangements between pharmacy benefit managers and manufacturers, the implementation of which have also been delayed by the Biden administration until January 1, 2023.

On July 9, 2021, President Biden signed Executive Order 14063, which focuses on, among other things, the price of pharmaceuticals. The Order directs the HHS to create a plan within 45 days to combat “excessive pricing of prescription pharmaceuticals and enhance domestic pharmaceutical supply chains, to reduce the prices paid by the federal government for such pharmaceuticals, and to address the recurrent problem of price gouging.” On September 9, 2021, HHS released its plan to reduce pharmaceutical prices. The key features of that plan are to: (a) make pharmaceutical prices more affordable and equitable for all consumers and throughout the health care system by supporting pharmaceutical price negotiations with manufacturers; (b) improve and promote competition throughout the prescription pharmaceutical industry by supporting market changes that strengthen supply chains, promote biosimilars, and increase transparency; and (c) foster scientific innovation to promote better healthcare and improve health by supporting public and private research and making sure that market incentives promote discovery of valuable and accessible new treatments.

At the state level, individual states are increasingly aggressive in passing legislation and implementing regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. A number of states, for example, require pharmaceutical manufacturers and other entities in the supply chain, including health carriers, pharmacy benefit managers, wholesale distributors, to disclose information about pricing of pharmaceuticals. In addition, regional healthcare organizations and individual hospitals are increasingly using bidding procedures to determine what pharmaceutical products and which suppliers will be included in their prescription pharmaceutical and other healthcare programs. These measures could reduce the ultimate demand for our products, once approved, or put pressure on our product pricing. We expect that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in reduced demand for our product candidates or additional pricing pressures.

Federal and state data privacy laws

There are multiple privacy and data security laws that may impact our business activities, in the United States and in other countries where we conduct trials or where we may do business in the future. These laws are evolving and may increase both our obligations and our regulatory risks in the future. In the health care industry generally, under HIPAA, the HHS has issued regulations to protect the privacy and security of protected health information, or PHI, used or disclosed by covered entities including certain healthcare providers, health plans and healthcare clearinghouses. HIPAA also regulates standardization of data content, codes and formats used in healthcare transactions and standardization of identifiers for health plans and providers. HIPAA also imposes certain obligations on the business associates of covered entities that obtain protected health information in providing services to or on behalf of covered entities. HIPAA may apply to us in certain circumstances and may also apply to our business partners in ways that may impact our relationships with them. Our clinical trials are regulated by the Common Rule, which also includes specific privacy-related provisions. In addition to federal privacy regulations, there are a number of state laws governing confidentiality and security of health information that may be applicable to our business. In addition to possible federal civil and criminal penalties for HIPAA violations, state attorneys general are authorized to file civil actions for damages or injunctions in federal courts to enforce HIPAA and seek attorney's fees and costs associated with pursuing federal civil actions. In addition, state attorneys general (along with private plaintiffs) have brought civil actions seeking injunctions and damages resulting from alleged violations of HIPAA's privacy and security rules. State attorneys general also have authority to enforce state privacy and security laws. New laws and regulations governing privacy and security may be adopted in the future as well.

At the state level, California has enacted legislation that has been dubbed the first "GDPR-like" law in the United States. Known as the California Consumer Privacy Act, or 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 went into effect on January 1, 2020 and requires covered companies to provide new disclosures to California consumers, provide such consumers new ways to opt-out of certain sales of personal information, and allow for a new cause of action for data breaches. Additionally, effective starting on January 1, 2023, the California Privacy Rights Act, or CPRA, will significantly modify the CCPA, including by expanding consumers' rights with respect to certain sensitive personal information. The CPRA also creates a new state agency that will be vested with authority to implement and enforce the CCPA and the CPRA. The CCPA and CPRA could impact our business activities depending on how it is interpreted and exemplifies the vulnerability of our business to not only cyber threats but also the evolving regulatory environment related to personal data and individually identifiable health information. These provisions may apply to some of our business activities. In addition, other states, including Virginia and Colorado, already have passed state privacy laws and other states will likely be considering similar laws in the near future.

Because of the breadth of these laws and the narrowness of the statutory exceptions and regulatory safe harbors available under such laws, it is possible that some of our current or future business activities, including certain clinical research, sales and marketing practices and the provision of certain items and services to our customers, could be subject to challenge under one or more of such privacy and data security laws. The heightening compliance environment and the need to build and maintain robust and secure systems to comply with different privacy compliance and/or reporting requirements in multiple jurisdictions could increase the possibility that a healthcare company may fail to comply fully with one or more of these requirements. If our operations are found to be in violation of any of the privacy or data security laws or regulations described above that are applicable to us, or any other laws that apply to us, we may be subject to penalties, including potentially significant criminal, civil and administrative penalties, damages, fines, contractual damages, reputational harm, diminished profits and future earnings, additional reporting requirements and/or oversight if we become subject to a consent decree or similar agreement to resolve allegations of non-compliance with these laws, and the curtailment or restructuring of our operations, any of which

could adversely affect our ability to operate our business and our results of operations. To the extent that any product candidates we may develop, once approved, are sold in a foreign country, we may be subject to similar foreign laws.

Approval and regulation of medical products in the European Union

In addition to regulations in the United States, we will be subject to a variety of foreign regulations governing clinical trials and commercial sales and distribution of our products outside of the United States. Whether or not we obtain FDA approval for a product candidate, we must obtain approval by the comparable regulatory authorities of foreign countries or economic areas, such as the 27-member European Union, before we may commence clinical trials or market products in those countries or areas. In the European Union, our product candidates also may be subject to extensive regulatory requirements. As in the United States, medicinal products can be marketed only if a marketing authorization from the competent regulatory agencies has been obtained. Similar to the United States, the various phases of preclinical and clinical research in the European Union are subject to significant regulatory controls.

With the exception of the European Union and European Economic Area, or EEA, applying the harmonized regulatory rules for medicinal products, the approval process and requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary greatly between countries and jurisdictions and can involve additional testing and additional administrative review periods. The time required to obtain approval in other countries and jurisdictions might differ from and be longer than that required to obtain FDA approval. Regulatory approval in one country or jurisdiction does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country or jurisdiction may negatively impact the regulatory process in others.

Clinical trials

On January 31, 2022, the new Clinical Trials Regulation (EU) No 536/2014 became effective in the European Union and replaced the prior Clinical Trials Directive 2001/20/EC. The new regulation aims at simplifying and streamlining the authorization, conduct and transparency of clinical trials in the European Union. Under the new coordinated procedure for the approval of clinical trials, the sponsor of a clinical trial to be conducted in more than one Member State of the European Union, or EU Member State, will only be required to submit a single application for approval. The submission will be made through the Clinical Trials Information System, a new clinical trials portal overseen by the EMA and available to clinical trial sponsors, competent authorities of the EU Member States and the public.

The new regulation did not change the preexisting requirement that a sponsor must obtain prior approval from the competent national authority of the EU Member State in which the clinical trial is to be conducted. If the clinical trial is conducted in different EU Member States, the competent authorities in each of these EU Member States must provide their approval for the conduct of the clinical trial. Furthermore, the sponsor may only start a clinical trial at a specific clinical site after the applicable ethics committee has issued a favorable opinion.

Parties conducting certain clinical trials must, as in the United States, post clinical trial information in the European Union at the EudraCT website: https://eudract.ema.europa.eu.

Marketing authorization in the European Union

Marketing authorization applications, or MAAs, can be filed either under the so-called centralized or national authorization procedures, albeit through the mutual recognition or decentralized procedure for a product to be authorized in more than one EU Member State.

The centralized procedure provides for the grant of a single marketing authorization following a favorable opinion by the European Medicines Agency, or EMA, that is valid in all EU Member States, as well as Iceland, Liechtenstein and Norway, which are part of the EEA. The centralized procedure is compulsory for medicines produced by specified biotechnological processes, products designated as orphan medicinal products, advanced-therapy medicines (such as gene-therapy, somatic cell-therapy or tissue-engineered medicines) and products with a new active substance indicated for the treatment of specified diseases, such as HIV/ AIDS, cancer, diabetes, neurodegenerative disorders or autoimmune diseases and other immune dysfunctions and viral diseases. The centralized procedure is optional for products that represent a significant therapeutic, scientific or technical innovation, or whose authorization would be in the interest of public health. Under the centralized procedure the maximum timeframe for the evaluation of an MAA by the EMA is 210 days, excluding clock stops, when additional written or oral information is to be provided by the sponsor in response to questions asked by the Committee for Medicinal Products for Human Use, or the CHMP. Accelerated assessment might be granted by the CHMP in exceptional

cases, when a medicinal product is expected to be of a major public health interest, particularly from the point of view of therapeutic innovation. The timeframe for the evaluation of an MAA under the accelerated assessment procedure is of 150 days, excluding stop-clocks.

There are also two other possible routes to authorize medicinal products in several EU countries, which are available for investigational medicinal products that fall outside the scope of the centralized procedure:

- *Decentralized procedure*. Using the decentralized procedure, a sponsor may apply for simultaneous authorization in more than one EU country of medicinal products that have not yet been authorized in any EU country and that do not fall within the mandatory scope of the centralized procedure. The sponsor may choose a member state as the reference member State to lead the scientific evaluation of the application.

- *Mutual recognition procedure*. In the mutual recognition procedure, a medicine is first authorized in one EU Member State (which acts as the reference member state), in accordance with the national procedures of that country. Following this, further marketing authorizations can be progressively sought from other EU countries in a procedure whereby the countries concerned agree to recognize the validity of the original, national marketing authorization produced by the reference member state.

Under the above-described procedures, before granting the marketing authorization, the EMA or the competent authorities of the Member States of the EEA make an assessment of the risk-benefit balance of the product on the basis of scientific criteria concerning its quality, safety and efficacy.

Conditional approval

In particular circumstances, EU legislation (Article 14–a Regulation (EC) No 726/2004 (as amended by Regulation (EU) 2019/5 and Regulation (EC) No 507/2006 on Conditional Marketing Authorizations for Medicinal Products for Human Use) enables sponsors to obtain a conditional marketing authorization prior to obtaining the comprehensive clinical data required for an application for a full marketing authorization. Such conditional approvals may be granted for product candidates (including medicines designated as orphan medicinal products) if (1) the product candidate is intended for the treatment, prevention or medical diagnosis of seriously debilitating or life-threatening diseases; (2) the product candidate is intended to meet unmet medical needs of patients; (3) a marketing authorization may be granted prior to submission of comprehensive clinical data provided that the benefit of the immediate availability on the market of the medicinal product concerned outweighs the risk inherent in the fact that additional data are still required; (4) the risk-benefit balance of the product candidate is positive, and (5) it is likely that the sponsor will be in a position to provide the required comprehensive clinical trial data. A conditional marketing authorization may contain specific obligations to be fulfilled by the marketing authorization holder, including obligations with respect to the completion of ongoing or new clinical trials and with respect to the collection of pharmacovigilance data. Conditional marketing authorizations are valid for one year, and may be renewed annually, if the risk-benefit balance remains positive, and after an assessment of the need for additional or modified conditions or specific obligations. The timelines for the centralized procedure described above also apply with respect to the review by the CHMP of applications for a conditional marketing authorization.

Pediatric trials

Prior to obtaining a marketing authorization in the European Union, sponsors have to demonstrate compliance with all measures included in an EMA-approved Pediatric Investigation Plan, or PIP, covering all subsets of the pediatric population, unless the EMA has granted a product-specific waiver, a class waiver or a deferral for one or more of the measures included in the PIP. The respective requirements for all marketing authorization procedures are set forth in Regulation (EC) No 1901/2006, which is referred to as the Pediatric Regulation. This requirement also applies when a company wants to add a new indication, pharmaceutical form or route of administration for a medicine that is already authorized. The Pediatric Committee of the EMA, or PDCO, may grant deferrals for some medicines, allowing a company to delay development of the medicine in children until there is enough information to demonstrate its effectiveness and safety in adults. The PDCO may also grant waivers when development of a medicine in children is not needed or is not appropriate because (a) the product is likely to be ineffective or unsafe in part or all of the pediatric population; (b) the disease or condition occurs only in adult population; or (c) the product does not represent a significant therapeutic benefit over existing treatments for pediatric population. Before a marketing authorization application can be filed, or an existing marketing authorization can be amended, the EMA determines that companies actually comply with the agreed studies and measures listed in each relevant PIP.

PRIME designation

In March 2016, the EMA launched an initiative to facilitate development of product candidates in indications, often rare, for which few or no therapies currently exist. The PRIority MEdicines, or PRIME, scheme is intended to encourage product development in areas of unmet medical need and provides accelerated assessment of products representing substantial innovation reviewed under the centralized procedure. Products from small- and medium-sized enterprises, or SMEs, may qualify for earlier entry into the PRIME scheme than larger companies. Many benefits accrue to sponsors of product candidates with PRIME designation, including but not limited to, early and proactive regulatory dialogue with the EMA, frequent discussions on clinical trial designs and other development program elements, and accelerated marketing authorization application assessment once a dossier has been submitted. Importantly, a dedicated agency contact and rapporteur from the CHMP or Committee for Advanced Therapies are appointed early in the PRIME scheme, facilitating increased understanding of the product at EMA's Committee level. A kick-off meeting initiates these relationships and includes a team of multidisciplinary experts at the EMA to provide guidance to the sponsor on the overall development and regulatory strategies.

Periods of authorization and renewals

A marketing authorization is valid for five years in principle and the marketing authorization may be renewed after five years on the basis of a re-evaluation of the risk-benefit balance by the EMA or by the competent authority of the authorizing member state. To this end, the marketing authorization holder must provide the EMA or the competent authority with a consolidated version of the file in respect of quality, safety and efficacy, including all variations introduced since the marketing authorization was granted, at least nine months before the marketing authorization ceases to be valid. Once renewed, the marketing authorization is valid for an unlimited period, unless the European Commission or the competent authority decides, on justified grounds relating to pharmacovigilance, to proceed with one additional five-year renewal. Any authorization which is not followed by the actual placing of the product on the EU market (in case of centralized procedure) or on the market of the authorizing member state within three years after authorization ceases to be valid (the so-called sunset clause).

Regulatory requirements after marketing authorization

As in the United States, both marketing authorization holders and manufacturers of medicinal products are subject to comprehensive regulatory oversight by the EMA and the competent authorities of the individual EU Member States both before and after grant of the manufacturing and marketing authorizations. The holder of an EU marketing authorization for a medicinal product must, for example, comply with EU pharmacovigilance legislation and its related regulations and guidelines which entail many requirements for conducting pharmacovigilance, or the assessment and monitoring of the safety of medicinal products. The manufacturing process for medicinal products in the European Union is also highly regulated and regulators may shut down manufacturing facilities that they believe do not comply with regulations. Manufacturing requires a manufacturing authorization, and the manufacturing authorization holder must comply with various requirements set out in the applicable EU laws, including compliance with EU cGMP standards when manufacturing medicinal products and active pharmaceutical ingredients.

In the European Union, the advertising and promotion of approved products are subject to EU Member States' laws governing promotion of medicinal products, interactions with clinicians, misleading and comparative advertising and unfair commercial practices. In addition, other legislation adopted by individual EU Member States may apply to the advertising and promotion of medicinal products. These laws require that promotional materials and advertising in relation to medicinal products comply with the product's Summary of Product Characteristics, or SmPC, as approved by the competent authorities. Promotion of a medicinal product that does not comply with the SmPC is considered to constitute off-label promotion, which is prohibited in the European Union.

Regulatory exclusivity

In the European Union, new products authorized for marketing (i.e., reference products) qualify for eight years of data exclusivity and an additional two years of market exclusivity upon marketing authorization. The data exclusivity period prevents generic sponsors from relying on the preclinical and clinical trial data contained in the dossier of the reference product when applying for a generic marketing authorization in the European Union during a period of eight years from the date on which the reference product was first authorized in the European Union. The market exclusivity period prevents a successful generic sponsor from commercializing its product in the European Union until ten years have elapsed from the initial authorization of the reference product in the European Union. The ten-year market exclusivity period can be extended to a maximum of eleven years if, during the first eight years of those ten years, the marketing authorization holder obtains an authorization for one or more new therapeutic indications which, during the scientific evaluation prior to their authorization, are held to bring a significant clinical benefit in comparison with existing therapies.

Orphan drug designation and exclusivity

The criteria for designating an orphan medicinal product in the European Union are similar in principle to those in the United States. Under Article 3 of Regulation (EC) 141/2000, a medicinal product may be designated as orphan if (1) it is intended for the diagnosis, prevention or treatment of a life-threatening or chronically debilitating condition, (2) either (a) such condition affects no more than five in 10,000 persons in the European Union when the application is made, or (b) the product, without the benefits derived from orphan status, would not generate sufficient return in the European Union to justify investment and (3) there exists no satisfactory method of diagnosis, prevention or treatment of such condition authorized for marketing in the European Union, or if such a method exists, the product will be of significant benefit to those affected by the condition. The term 'significant benefit' is defined in Regulation (EC) 847/2000 to mean a clinically relevant advantage or a major contribution to patient care.

Orphan medicinal products are eligible for financial incentives such as reduction of fees or fee waivers and are, upon grant of a marketing authorization, entitled to ten years of market exclusivity for the approved therapeutic indication. During this ten year market exclusivity period, the EMA or the competent authorities of the Member States of the EEA, cannot accept an application for a marketing authorization for a similar medicinal product for the same indication. A similar medicinal product is defined as a medicinal product containing a similar active substance or substances as contained in an authorized orphan medicinal product, and which is intended for the same therapeutic indication. The application for orphan designation must be submitted before the application for marketing authorization. The sponsor will receive a fee reduction for the marketing authorization application if the orphan designation has been granted, but not if the designation is still pending at the time the marketing authorization is submitted. Orphan designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process.

The ten-year market exclusivity in the European Union may be reduced to six years if, at the end of the fifth year, it is established that the product no longer meets the criteria for orphan designation, for example, if the product is sufficiently profitable not to justify maintenance of market exclusivity. Additionally, marketing authorization may be granted to a similar product for the same indication at any time if: (1) the second sponsor can establish that its product, although similar, is safer, more effective or otherwise clinically superior; (2) the sponsor consents to a second orphan medicinal product application; or (3) the sponsor cannot supply enough orphan medicinal product.

Pediatric exclusivity

If a sponsor obtains a marketing authorization in all EU Member States, or a marketing authorization granted in the centralized procedure by the European Commission, and the trial results for the pediatric population are included in the product information, even when negative, the medicine is then eligible for an additional six-month period of qualifying patent protection through extension of the term of the Supplementary Protection Certificate, or SPC, or alternatively a one year extension of the regulatory market exclusivity from ten to eleven years, as selected by the marketing authorization holder.

Patent term extensions

The European Union also provides for patent term extension through Supplementary Protection Certificates, or SPCs. The rules and requirements for obtaining a SPC are similar to those in the United States. An SPC may extend the term of a patent for up to five years after its originally scheduled expiration date and can provide up to a maximum of fifteen years of marketing exclusivity for a product. In certain circumstances, these periods may be extended for six additional months if pediatric exclusivity is obtained. Although SPCs are available throughout the European Union, sponsors must apply on a country-by-country basis. Similar patent term extension rights exist in certain other foreign jurisdictions outside the European Union.

Reimbursement and pricing of prescription pharmaceuticals

In the European Union, similar political, economic and regulatory developments to those in the United States may affect our ability to profitably commercialize our product candidates, if approved. In markets outside of the United States and the European Union, reimbursement and healthcare payment systems vary significantly by country and many countries have instituted price ceilings on specific products and therapies. In many countries, including those of the European Union, the pricing of prescription pharmaceuticals is subject to governmental control and access. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product. To obtain reimbursement or pricing approval in some countries, pharmaceutical firms may be required to conduct a clinical trial that compares the cost-effectiveness of the product to other available therapies.

Approval of companion diagnostic devices

In the European Union, medical devices such as companion diagnostics must comply with the General Safety and Performance Requirements, or SPRs, detailed in Annex I of the EU Medical Devices Regulation (Regulation (EU) 2017/745), or MDR which came into force on May 26, 2021 and replaced the previously applicable EU Medical Devices Directive (Council Directive 93/42/EEC). Compliance with SPRs and additional requirements applicable to companion medical devices is a prerequisite to be able to affix the CE Mark of Conformity to medical devices, without which they cannot be marketed or sold. To demonstrate compliance with the SPRs, a manufacturer must undergo a conformity assessment procedure, which varies according to the type of medical device and its classification. The MDR is meant to establish a uniform, transparent, predictable, and sustainable regulatory framework across the European Union for medical devices.

Separately, the regulatory authorities in the European Union also adopted a new In Vitro Diagnostic Regulation, or IVDR, (EU) 2017/746, which will become effective in May 2022. The new regulation will replace the In Vitro Diagnostics Directive (IVDD) 98/79/EC. Manufacturers wishing to apply to a notified body for a conformity assessment of their in vitro diagnostic medical device have until May 2022 to update their Technical Documentation to meet the requirements and comply with the new, more stringent Regulation. Once applicable, the regulation will, among other things: strengthen the rules on placing devices on the market and reinforce surveillance once they are available; establish explicit provisions on manufacturers' responsibilities for the follow-up of the quality, performance, and safety of devices placed on the market; improve the traceability of medical devices throughout the supply chain to the end-user or patient through a unique identification number; set up a central database to provide patients, healthcare professionals and the public with comprehensive information on products available in the European Union; and strengthen rules for the assessment of certain high-risk devices, such as implants, which may have to undergo an additional check by experts before they are placed on the market.

General Data Protection Regulation

Many countries outside of the United States maintain rigorous laws governing the privacy and security of personal information. The collection, use, disclosure, transfer, or other processing of personal data, including personal health data, regarding individuals who are located in the EEA, and the processing of personal data that takes place in the EEA, is subject to the General Data Protection Regulation, or GDPR, which became effective on May 25, 2018. The GDPR is wide-ranging in scope and imposes numerous requirements on companies that process personal data, and it imposes heightened requirements on companies that process health and other sensitive data, such as requiring in many situations that a company obtain the consent of the individuals to whom the sensitive personal data relate before processing such data. Examples of obligations imposed by the GDPR on companies processing personal data that fall within the scope of the GDPR include providing information to individuals regarding data processing activities, implementing safeguards to protect the security and confidentiality of personal data, appointing a data protection officer, providing notification of data breaches and taking certain measures when engaging third-party processors.

The GDPR also imposes strict rules on the transfer of personal data to countries outside the EEA, including the United States, and permits data protection authorities to impose large penalties for violations of the GDPR, including potential fines of up to €20 million or 4% of annual global revenues, whichever is greater. The GDPR also confers a private right of action on data subjects and consumer associations to lodge complaints with supervisory authorities, seek judicial remedies, and obtain compensation for damages resulting from violations of the GDPR. Compliance with the GDPR is a rigorous and time-intensive process that may increase the cost of doing business or require companies to change their business practices to ensure full compliance. In July 2020, the Court of Justice of the European Union, or the CJEU, invalidated the EU-U.S. Privacy Shield framework, one of the mechanisms used to legitimize the transfer of personal data from the EEA to the United States. The CJEU decision also drew into question the long-term viability of an alternative means of data transfer, the standard contractual clauses, for transfers of personal data from the EEA to the United States. Following the withdrawal of the United Kingdom from the European Union, the U.K. Data Protection Act 2018 applies to the processing of personal data that takes place in the United Kingdom and includes parallel obligations to those set forth by GDPR.

Brexit and the regulatory framework in the United Kingdom

The United Kingdom's withdrawal from the European Union took place on January 31, 2020. The European Union and the United Kingdom reached an agreement on their new partnership in the Trade and Cooperation Agreement, or the Agreement, which was applied provisionally beginning on January 1, 2021 and which entered into force on May 1, 2021. The Agreement focuses primarily on free trade by ensuring no tariffs or quotas on trade in goods, including healthcare products such as medicinal products. Thereafter, the European Union and the United Kingdom will form two separate markets governed by two distinct regulatory and legal regimes. As such, the Agreement seeks to minimize barriers to trade in goods while accepting that border checks will become inevitable as a consequence that the United Kingdom is no longer part of the single market. As of

January 1, 2021, the Medicines and Healthcare products Regulatory Agency, or the MHRA, became responsible for supervising medicines and medical devices in Great Britain, comprising England, Scotland and Wales under domestic law whereas Northern Ireland continues to be subject to EU rules under the Northern Ireland Protocol. The MHRA will rely on the Human Medicines Regulations 2012 (SI 2012/1916) (as amended), or the HMR, as the basis for regulating medicines. The HMR has incorporated into the domestic law the body of EU law instruments governing medicinal products that pre-existed prior to the United Kingdom's withdrawal from the European Union.

Intellectual property

We actively seek to protect the proprietary technology that we consider important to our business, including pursuing patents that cover our ADC platforms, proprietary compositions of matter, ADC product candidates and methods of using and manufacturing the same, as well as any other relevant inventions and improvements that are considered commercially important to the development of our business. We also rely on trade secrets, know-how and continuing technological innovation to develop and maintain our proprietary and intellectual property position.

Our commercial success will depend significantly on our ability to obtain and maintain patents and other proprietary protection for the technology, inventions and improvements we consider important to our business, and to defend our patents, preserve the confidentiality of our trade secrets and operate without infringing the patents and proprietary rights of third parties. Our policy is to seek to protect our proprietary and intellectual property position by, among other methods, filing U.S., international (under Patent Cooperation Treaty, or PCT) and foreign patent applications related to our proprietary technology, inventions and improvements that we consider to be important to the development and implementation of our business. We also believe in protecting our unpatented trade secrets and know-how and continuing our technological innovation to develop our business and to maintain our competitive position.

The term of individual patents depends upon the legal term for patents in the countries in which they are obtained. In most countries, including the United States, the patent term is 20 years from the earliest filing date of a non-provisional patent application. In the United States, a patent's term may be lengthened by patent term adjustment, which compensates a patentee for administrative delays by the USPTO in examining and granting a patent or may be shortened if a patent is terminally disclaimed over an earlier filed patent. The term of a patent that covers a drug or biological product may also be eligible for patent term extension when FDA approval is granted, provided statutory and regulatory requirements are met. In the future, if and when our drug candidates receive approval by the FDA or foreign regulatory authorities, we expect to apply for patent term extensions on issued patents covering those drugs, depending upon the length of the clinical trials for each drug and other factors. There can be no assurance that any of our pending patent applications will issue or that we will benefit from any patent term extension or favorable adjustments to the terms of any of our patents.

As with other biotechnology and pharmaceutical companies, our ability to maintain and solidify our proprietary and intellectual property position for our drug candidates and technologies will depend on our success in obtaining effective patent claims and enforcing those claims if granted. However, our pending patent applications, and any patent applications that we may in the future file or license from third parties, may not result in the issuance of patents. We also cannot predict the breadth of claims that may be allowed or enforced in our patents. Any issued patents that we may currently own or license or may receive in the future may be challenged, invalidated, circumvented or have the scope of their claims narrowed. For example, we cannot be certain of the priority of inventions covered by pending third party patent applications. If third parties prepare and file patent applications in the United States that also claim technology or therapeutics to which we have rights, we may have to participate in interference proceedings in the USPTO to determine priority of invention, which could result in substantial costs to us, even if the eventual outcome is favorable to us, which is highly unpredictable. In addition, because of the extensive time required for clinical development and regulatory review of a drug candidate we may develop, it is possible that, before any of our drug candidates can be commercialized, any related patent may expire or remain in force for only a short period following commercialization, thereby limiting the protection such patent would afford the respective product and any competitive advantage such patent may provide. For more information regarding the risks related to our intellectual property, please see "Risk factors—Risks related to our intellectual property."

As of January 31, 2022, we owned, in all of our patent portfolios, 22 issued U.S. patents, 13 pending non-provisional U.S. patent applications, five pending provisional U.S. patent applications, 102 issued foreign patents, five pending PCT patent applications and 138 pending foreign patent applications (including four allowed foreign patent applications) in a number of foreign jurisdictions, including, but being not limited to, Argentina, Australia, Brazil, Canada, China, Europe, Eurasia, Gulf Cooperation Council, Hong Kong, Israel, India, Japan, Mexico, Macau, Pakistan, New Zealand, Russia, South Korea, South Africa, and Taiwan. Our 10 issued U.S. patents covering our Fleximer ADC platform are projected to expire in 2032, excluding any additional term for patent term adjustments or patent term extensions; our two issued U.S. patents covering our Dolaflexin

ADC platform are projected to expire in 2034 and 2038, excluding any additional term for patent term adjustments or patent term extensions; our one issued U.S. patent covering our STING agonist payload is projected to expire in 2040, excluding any additional term for patent term adjustments or patent term extensions; our additional nine issued U.S. patents are projected to expire between 2032 and 2037, excluding any additional term for patent term adjustments or patent term extensions; and any patent that may issue from our pending U.S. applications is projected to expire between 2037 and 2042, in each case, excluding any additional term for patent term adjustments or patent term extensions. In addition, we have exclusively in licensed four issued U.S. patents and one issued European patent for the NaPi2b antibody from Recepta, which Recepta licensed from Ludwig Institute for Cancer Research. These in-licensed issued U.S. and European patents are projected to expire in 2029, excluding any additional term for patent term adjustments or patent term extensions. Recepta still owns one pending Brazilian patent application for the NaPi2b antibody, which is not licensed to us. A patent issuing from this Brazilian patent application is projected to expire in 2029. We have also non-exclusively in-licensed from Synaffix certain patents and patent applications for their proprietary site-specific conjugation technology. These in-licensed Synaffix patents and patent applications are seven issued US patents, four pending non-provisional U.S. patent applications, eight issued foreign patents, one pending PCT patent applications and 14 pending foreign patent applications, in a number of foreign jurisdictions, including, but being not limited to, China, Europe, India, Japan, and Netherlands. These in-licensed issued U.S. and European patents are projected to expire from 2031 to 2040, excluding any additional term for patent term adjustments or patent term extensions. We have so far not filed for patent protection in all national and regional jurisdictions where such protection may be available. In addition, we may decide to abandon national and regional patent applications before they are granted. Finally, the grant proceeding of each national or regional patent is an independent proceeding which may lead to situations in which applications might in some jurisdictions be refused by the relevant registration authorities, while granted by others. It is also quite common that depending on the country, various scopes of patent protection may be granted on the same product candidate or technology.

The intellectual property portfolio of our ADC platforms, our ADC product candidates and components thereof and companion diagnostics are summarized below. Some of these portfolios are in very early stages and prosecution has yet to commence on some of the pending patent applications. Prosecution is a lengthy process, during which the scope of the claims initially submitted for examination by the USPTO may be narrowed (sometimes significantly) by the time they issue, if they issue at all. We expect this to be the case with respect to our pending patent applications referred to below.

Fleximer ADC platform

The intellectual property portfolio for our Fleximer ADC platform is directed to compositions of matter for the Fleximer ADCs, as well as methods of using and making these novel conjugates, compositions of matter for Fleximer drug conjugates prior to conjugation with the antibody or antibody fragment and methods of making the same, and compositions of matter for our proprietary auristatin DolaLock compounds and conjugates thereof (e.g., to Fleximer and/or an antibody or antibody fragment). As of January 31, 2022, we owned 10 issued U.S. patents, one pending non-provisional U.S. patent application, 48 issued foreign patents, and four pending foreign patent applications (including one allowed foreign patent application) in a number of foreign jurisdictions, including, but not limited to, Australia, Brazil, Canada, China, Europe, Hong Kong, Israel, India, Japan, Macau, Mexico, Russia, South Korea, and Taiwan. Any U.S. or foreign patent issuing from the pending applications covering the Fleximer ADC platform is projected to expire in 2032, excluding any additional term for patent term adjustments or patent term extensions.

Dolaflexin ADC platform

The intellectual property portfolio for our Dolaflexin ADC platform is directed to compositions of matter for the Dolaflexin ADCs, as well as methods of using and making these novel conjugates, compositions of matter for Dolaflexin drug conjugates prior to conjugation with the antibody or antibody fragment and methods of making the same. As of January 31, 2022, we owned two issued U.S. patents, 34 issued foreign patent, and 11 pending foreign patent applications in a number of foreign jurisdictions, including, but not limited to, Australia, Brazil, Canada, China, Eurasia, Europe, Hong Kong, Israel, India, Japan, South Korea, Mexico, Russia, South Africa and Taiwan. Any U.S. or foreign patent issuing from the pending applications covering Dolaflexin ADC platform is projected to expire in 2034, and any U.S. or foreign patent issuing from the pending applications covering the method of making the Dolaflexin ADC is projected to expire in 2038, excluding any additional term for patent term adjustments or patent term extensions.

UpRi ADC

The intellectual property portfolio for UpRi, our leading NaPi2b ADC product candidate is directed to compositions of matter for our novel ADC based on exclusively in licensed NaPi2b antibody and our Dolaflexin platform, as well as methods of using, making these novel conjugates, methods of administration and companion diagnostics. As of January 31, 2021, we owned four pending non-provisional U.S. patent applications (including one allowed U.S. patent application), 37 pending foreign patent applications, and one pending PCT application directed to the composition of matter for UpRi, methods of using and making

same, companion diagnostics for UpRi ADC and UpRi dosing regimens. We also intend to enter the national/regional phase of the pending PCT patent application in foreign jurisdictions, including, but not limited to, Australia, Brazil, Canada, China, Eurasia, Europe, Hong Kong, Israel, India, Japan, South Korea, Macau, Mexico and South Africa. Any U.S. or foreign patent issuing from the pending applications covering UpRi is projected to expire in 2037, and any U.S. or foreign patent issuing from the pending applications covering UpRi companion diagnostics is projected to expire in 2038, excluding any additional term for patent term adjustments or patent term extensions, and any U.S. or foreign patent issuing from the pending applications covering the UpRi dosing regimens is projected to expire in 2039.

In addition, as mentioned above, we have exclusively in licensed four issued U.S. patents and one issued European patent for the novel NaPi2b antibody from Recepta, which Recepta licensed from Ludwig Institute for Cancer Research. These in licensed issued U.S. and European patents are projected to expire in 2029, excluding any additional term for patent term adjustments or patent term extensions. Recepta still owns one pending Brazilian patent application for the NaPi2b antibody, which is not licensed to us. A patent issuing from this Brazilian patent application is projected to expire in 2029.

Dolasynthen ADC platform

The intellectual property portfolio for our novel Dolasynthen platform is directed to compositions of matter for the novel scaffold and ADCs thereof, as well as methods of using and making these novel conjugates and scaffolds. As of January 31, 2022, we owned one issued U.S. patent, two pending non-provisional U.S. patent application, 30 pending foreign patent applications. in a number of foreign jurisdictions, including, but not limited to, Australia, Brazil, Canada, China, Eurasia, Europe, Hong Kong, Israel, India, Japan, Macau, Mexico, South Korea, and Taiwan. Any U.S. or foreign patent issuing from the pending applications covering the novel Dolasynthen platform is projected to expire between 2037 and 2039, excluding any additional term for patent term adjustments or patent term extensions.

XMT-1592 ADC

The intellectual property portfolio for XMT-1592, our other NaPi2b ADC product candidate, is directed to compositions of matter for our novel ADC based on exclusively in licensed NaPi2b antibody and our Dolasynthen platform, as well as methods of using, making, and administration of these novel conjugates. As of January 31, 2022, we owned one pending non-provisional U.S. patent application, three pending foreign patent applications, including Taiwan, and one pending PCT patent application. We intend to enter the national/regional phase of the PCT patent applications in a number of foreign jurisdictions, including, but not limited to, Australia, Brazil, Canada, China, Eurasia, Europe, Hong Kong, Israel, India, Japan, Macau, Mexico, South Korea, New Zealand, South Africa, Saudi Arabia, and United Arab Emirates. Any U.S. or foreign patent issuing from the pending applications covering XMT-1592 is projected to expire in 2041, excluding any additional term for patent term adjustments or patent term extensions.

In addition, as described above with respect to NaPi2b antibody, we have exclusively in-licensed four issued U.S. patents and one issued European patent for the novel NaPi2b antibody from Recepta, which Recepta licensed from Ludwig Institute for Cancer Research. These in-licensed issued U.S. and European patents are projected to expire in 2029, excluding any additional term for patent term adjustments or patent term extensions. Recepta still owns one pending Brazilian patent application for the NaPi2b antibody, which is not licensed to us. A patent issuing from this Brazilian patent application is projected to expire in 2029. We have also non-exclusively in-licensed from Synaffix certain patents and patent applications for their proprietary site-specific conjugation technology. These in-licensed Synaffix patents and patent applications are seven issued US patents, four pending non-provisional U.S. patent applications, eight issued foreign patents, one pending PCT patent applications and 14 pending foreign patent applications, in a number of foreign jurisdictions, including, but being not limited to, China, Europe, India, Japan, and Netherlands. These in-licensed issued U.S. and European patents are projected to expire from 2031 to 2040, excluding any additional term for patent term adjustments or patent term extensions.

XMT-1660 ADC

The intellectual property portfolio for XMT-1660, our site-specific B7-H4 ADC product candidate is directed to compositions of matter for our novel ADC based on our novel B7-H4 antibody and our Dolasynthen platform, as well as methods of using, making these novel conjugates and administration of these novel conjugates. As of January 31, 2022, we owned one pending non-provisional U.S. patent application, one pending provisional application, three pending foreign patent applications, including Taiwan, and one pending PCT patent application. We intend to enter the national/regional phase of the PCT patent applications in a number of foreign jurisdictions, including, but not limited to, Australia, Brazil, Canada, China, Eurasia, Europe, Hong Kong, Israel, India, Japan, Macau, Mexico, South Korea, New Zealand, South Africa, Saudi Arabia, and United Arab Emirates. Any U.S. or foreign patent issuing from the pending applications covering XMT-1660 is projected to expire in 2042, excluding any additional term for patent term adjustments or patent term extensions.

Immunosynthen ADC platform and XMT-2056

The intellectual property portfolio for our novel Immunosynthen platform is directed to compositions of matter for the novel STING agonists and ADCs thereof, including XMT-2056, our Her-2 ADC development candidate that targets a novel epitope of HER2, as well as methods of using and methods of making these novel payloads and ADCs. As of January 31, 2022, we owned one issued U.S. patent, one pending non-provisional U.S. patent applications, five pending foreign patent applications, including Taiwan, and two pending PCT patent applications related to our the novel STING agonists, and one pending non-provisional U.S. patent application, three pending foreign patent applications, including Taiwan, and one pending PCT patent applications related to our Immunosynthen platform. We intend to enter the national/regional phase of the PCT patent applications in a number of foreign jurisdictions, including, but not limited to, Australia, Brazil, Canada, China, Eurasia, Europe, Hong Kong, Israel, India, Japan, Macau, Mexico, South Korea, New Zealand, South Africa, Saudi Arabia, and United Arab Emirates. Any U.S. or foreign patent issuing from the pending applications covering the novel STING agonists is projected to expire between 2040 and 2041, and any U.S. or foreign patent issuing from the pending applications covering the Immunosynthen platform and XMT-2056 is projected to expire in 2041, excluding any additional term for patent term adjustments or patent term extensions.

In addition to the above with respect to XMT-2056 as of January 31, 2022, we owned two issued U.S. patent, one pending non-provisional U.S. patent applications, seven issued foreign patent, and 11 pending foreign patent applications (including one allowed foreign patent application), in a number of foreign jurisdictions, including, but not limited to, Australia, Brazil, Canada, China, Eurasia, Europe, Hong Kong, Israel, India, Japan, Macau, Mexico, South Korea, New Zealand and Taiwan, directed to the novel Her-2 antibody. Any U.S. or foreign patent issuing from the pending applications covering the novel Her-2 antibody is projected to expire in 2035, excluding any additional term for patent term adjustments or patent term extensions.

In addition to patents, we rely upon unpatented trade secrets and know-how and continuing technological innovation to develop and maintain our competitive position. We seek to protect our proprietary information, in part, by executing confidentiality and assignment of inventions agreements with our employees and consultants, which agreements may also include appropriate non-competition and non-solicit agreements depending on level and role, as well as confidentiality agreements with our collaborators and scientific advisors. We have also executed agreements requiring assignment of inventions with selected scientific advisors and collaborators. The confidentiality agreements we enter into are designed to protect our proprietary information and the agreements or clauses requiring assignment of inventions to us are designed to grant us ownership of technologies that are developed through our relationship with the respective counterparty. We cannot guarantee, however, that we will have executed such agreements with all applicable employees and contractors, or that these agreements will afford us adequate protection of our intellectual property and proprietary information rights. Trade secrets and know-how can be difficult to protect. In particular, we anticipate that with respect to our technology platforms, trade secrets and know-how will over time be disseminated within the industry through independent development and public presentations describing the methodology. For more information regarding the risks associated with our trade secrets, please see “Risk factors—Risks related to our intellectual property—Confidentiality agreements with employees and third parties may not prevent unauthorized disclosure of trade secrets and other proprietary information.”

Competition

The biotechnology and biopharmaceutical industries, and the oncology subsector, are characterized by rapid evolution of technologies, fierce competition and strong defense of intellectual property. Any product candidates that we successfully develop and commercialize will have to compete with existing therapies and new therapies that may become available in the future. While we believe that our proprietary ADC platforms and scientific expertise provide us with competitive advantages, a wide variety of institutions, including large biopharmaceutical companies, specialty biotechnology companies, academic research departments and public and private research institutions, are actively developing potentially competitive products and technologies. These competitors generally fall within the following categories:

New cancer treatments: Many global pharmaceutical companies, as well as medium and small biotechnology companies, are pursuing new cancer treatments whether small molecules, biologics or ADCs. Any of these treatments could prove to be superior clinically to our products.

ADC platforms: Although Dolaflexin, Dolasynthen, Immunosynthen and other initiatives we have underway are highly differentiated and proprietary, many companies continue to invest in innovation in the ADC field including new payload classes, new conjugation approaches and new targeting moieties. Any of these initiatives could lead to a platform that has superior properties to ours. We are also aware of multiple companies with ADC technologies that may be competitive to our platforms, including Daiichi Sankyo, ImmunoGen, Gilead (Immunomedics), Pfizer and SeaGen. These companies or their

partners, including Astellas, AstraZeneca, AbbVie, Genentech/Roche and Takeda, may develop product candidates which compete in the same indications as our current and future product candidates. Multiple companies are also developing immune stimulating ADCs which could compete with our Immunosynthen products, including Bolt Biotherapeutics, Inc., Takeda, and Silverback Therapeutics, Inc. We expect to compete based on our innovative technology and the efficacy, safety and tolerability profile of our ADCs compared to other product candidates but if our ADCs are not demonstrably superior in these respects, we may not be able to compete effectively.

Ovarian cancer: The first indication that we are targeting for UpRi, our most advanced clinical candidate, is ovarian cancer. There are multiple therapies currently available to treat both newly diagnosed and relapsed ovarian cancer, including platinum agents, non-platinum chemotherapy, PARP inhibitors and bevacizumab. In addition, multiple investigational product candidates are in development to treat these ovarian cancer patients, including the following investigational ADCs: mirvetuximab soravtansine (Immunogen), MORAb-202 (Eisai Co., Ltd. and Bristol Myers Squibb) and STRO-002 (Sutro Biopharma). Our ability to compete effectively with these and other emerging ovarian cancer treatments will depend on our ability to differentiate UpRi from these other therapies based on target patient selection, efficacy and tolerability. If we are unable to effectively differentiate UpRi, this will negatively impact our ability to compete in ovarian cancer.

Many of our competitors, either alone or with strategic partners, have substantially greater financial, technical and human resources than we do. Accordingly, our competitors may be more successful than us in obtaining approval for treatments and achieving widespread market acceptance, rendering our treatments obsolete or non-competitive. Accelerated merger and acquisition activity in the biotechnology and biopharmaceutical industries may result in even more resources being concentrated among a smaller number of our competitors. These companies also compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and patient enrollment for clinical trials and acquiring technologies complementary to, or necessary for, our programs. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. Our commercial opportunity could be substantially limited in the event that our competitors develop and commercialize products that are more effective, safer, more convenient or less expensive than our comparable products. In geographies that are critical to our commercial success, competitors may also obtain regulatory approvals before us, resulting in our competitors building a strong market position in advance of our products' entry. We believe the factors determining the success of our programs will be the efficacy, safety and tolerability of our product candidates.

Employees and Human Capital

As of January 31, 2022, we had 169 full time employees, including 90 with M.D., Ph.D. or other advanced degrees. Of these full time employees, 128 are engaged in research and development and 41 are engaged in general and administrative activities. None of our employees are represented by a labor union or covered by a collective bargaining agreement. We consider our relationship with our employees to be good.

We believe that our future success largely depends upon our continued ability to attract and retain highly skilled employees. Our human capital objectives include, as applicable, identifying, recruiting, retaining, incentivizing and integrating our existing and additional employees, and focusing on employee well-being and workplace safety. We provide our employees with competitive salaries and bonuses, opportunity for equity ownership, development programs that enable continued learning and growth, and a robust employment package that promotes wellness across all aspects of their lives, including healthcare, retirement planning, and paid time off.

We also believe that fostering diversity, equity, and inclusion is a key element to discovering, developing, and bringing therapies to patients with cancer. As of January 31, 2022, 56% of our global workforce and 40% of our leadership (at the executive director level and above) were female. We strive to build a workforce representative of the communities and patients we serve and to nurture an inclusive culture where all voices are welcomed, heard, and respected.

Facilities

Our corporate headquarters are located in Cambridge, Massachusetts. We occupy approximately 45,000 square feet of office and laboratory space that we lease in the multi-tenant building in which our corporate headquarters are located. Our lease expires in March 2026. We have an option to extend the lease term for an additional five years thereafter. We believe that this office and laboratory space is sufficient to meet our current needs and that suitable additional space will be available as and when needed.

Corporate Information

We were incorporated in 2001 as a Delaware corporation. Our principal executive offices are located at 840 Memorial Drive, Cambridge, MA 02139, and our telephone number is 617-498-0020. Our internet site is www.mersana.com. We routinely make available important information free of charge, including copies of our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act, as soon as reasonably practicable after such reports are electronically filed with, or furnished to, the SEC. We recognize our website as a key channel of distribution to reach public investors and as a means of disclosing material non-public information to comply with our disclosure obligations under SEC Regulation FD. Information contained on our website shall not be deemed incorporated into, or to be part of this Annual Report on Form 10-K, and any website references are not intended to be made through active hyperlinks.

ITEM 1A. RISK FACTORS

The following risk factors and other information included in this Annual Report on Form 10-K should be carefully considered. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently believe to be immaterial may also adversely affect our business. If any of the following risks occur, our business, financial condition, results of operations and future growth prospects could be materially and adversely affected. We undertake no obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise.

Risks related to development and approval of our ADC product candidates

Failure of a discovery program or product candidate may occur at any stage of preclinical or clinical development, and, because our and our partner's discovery programs and our product candidates are in early stages of preclinical or clinical development, there is a high risk of failure and we or our partners may never succeed in obtaining regulatory approval and generating revenue from such discovery programs or product candidates.

Our early clinical results for UpRi (upifitamab rilsodotin), our lead product candidate, our early preclinical results for XMT-1592 and the early results from preclinical studies or clinical trials of any other current or future product candidates, are not necessarily predictive of the results from our ongoing or future discovery programs, preclinical studies or clinical trials. Promising results in preclinical studies and early encouraging clinical results of a drug candidate may not be predictive of similar results in later-stage preclinical studies or in humans during clinical trials. Many companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in clinical trials after achieving positive results in earlier stages of clinical development, and we cannot be certain that we will not face similar setbacks. These companies' setbacks have been caused by, among other things, preclinical findings made while clinical trials were underway or safety or efficacy events in preclinical or clinical trials, including previously unreported adverse events. Similarly, the design of a clinical trial can determine whether its results will support approval of a product and flaws in the design of a clinical trial may not become apparent until the clinical trial is well advanced.

Any clinical trials that we may conduct may not demonstrate the efficacy and safety necessary to obtain regulatory approval to market our product candidates. In addition, clinical trial results for one of our product candidates or for competitor products utilizing similar technology, may raise concerns about the safety or efficacy of other products in our pipeline. If the results of our ongoing or future clinical trials are inconclusive with respect to the efficacy of our product candidates or if we do not meet the clinical endpoints with statistical significance or if there are safety concerns or adverse events associated with our product candidates, we may be prevented or delayed in obtaining marketing approval for our product candidates. For example, patients in our ongoing Phase 1b/2 clinical trial of UpRi have experienced serious adverse events, including without limitation death, pneumonitis, renal impairment, abdominal pain, fatigue, vomiting, sepsis, and pyrexia. We expect that certain patients in ongoing and future clinical trials will experience additional serious adverse events, including those that may result in death, as our product candidates progress through clinical development.

There can be significant variability in safety or efficacy results between different clinical trials of the same product candidate due to numerous factors, including changes in trial procedures set forth in protocols, differences in the size and type of the patient populations, changes in and adherence to the dosing regimen and other clinical trial protocols and the rate of dropout among clinical trial participants. Moreover, preclinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain U.S. Food and Drug Administration (FDA) approval. Even if we, or our collaborators, believe that the results of clinical trials of our product candidates warrant marketing approval, the FDA or comparable foreign regulatory authorities may disagree and may not grant marketing approval of our product candidates.

Alternatively, even if we obtain regulatory approval, that approval may be for indications or patient populations that are not as broad as intended or desired or may require labeling that includes significant use or distribution restrictions or safety warnings. We may also be required to perform additional or unanticipated clinical trials to obtain approval or be subject to additional post-marketing testing requirements to maintain regulatory approval. In addition, regulatory authorities may withdraw their approval of a product or impose restrictions on its distribution, such as in the form of a risk evaluation and mitigation strategy (REMS) program. The failure to obtain timely regulatory approval of product candidates, any product marketing limitations or a product withdrawal would negatively impact our business, results of operations and financial condition.

Interim, top-line and preliminary data from our clinical trials that we announce or publish from time to time may change as more patient data become available and are subject to audit and verification procedures that could result in material changes in the final data.

From time to time, we may publish interim, top-line or preliminary data from our clinical trials. Positive preliminary data may not be predictive of such trial's subsequent or overall results. Interim data from clinical trials that we may complete do not necessarily predict final results and are subject to the risk that one or more of the clinical outcomes may materially change as patient enrollment continues and more patient data become available. For example, we have reported interim data from our ongoing Phase 1b/2 clinical trial of UpRi, but we have not yet reported final data from the trial. Preliminary or top-line data also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary or top-line data we may publish. As a result, interim and preliminary data should be viewed with caution until the final data are available. Adverse differences between preliminary or interim data and final data could significantly harm our business prospects.

We currently have only two ADC product candidates, UpRi and XMT-1592, in clinical trials. A failure of any of our product candidates in clinical development would adversely affect our business and may require us to discontinue development of other ADC product candidates based on the same technology.

UpRi and XMT-1592 are currently our only clinical-stage development product candidates. While we have certain other preclinical programs in development and we intend to develop other product candidates, including XMT-1660 and XMT-2056 each for which we plan to submit investigational new drug, or IND, applications in 2022, it will take additional investment and time for such programs to reach the clinical stage of development. In addition, we have other product candidates in our current pipeline that are based on the same platforms as UpRi and XMT-1592. If either product candidate fails in development as a result of any underlying problem with our platforms, then we may be required to discontinue development of the product candidates that are based on the same technologies. If we were required to discontinue development of UpRi or XMT-1592, or if UpRi or XMT-1592 were to fail to receive regulatory approval or were to fail to achieve sufficient market acceptance, we could be prevented from or significantly delayed in achieving profitability.

Events that may delay or prevent successful commencement, enrollment or completion of clinical trials of our product candidates could result in increased costs to us as well as a delay in obtaining, or failure to obtain, regulatory approval, or cause us to suspend or terminate a clinical trial, which could prevent us from commercializing our product candidates on a timely basis, or at all.

We cannot guarantee that clinical trials, including our ongoing and future anticipated additional clinical trials of UpRi, our lead product candidate, and XMT-1592, will be conducted as planned or completed on schedule, if at all. A failure of one or more clinical trials can occur at any stage of testing, and other events may cause us to temporarily or permanently cease a clinical trial. Events that may prevent successful or timely commencement, enrollment or completion of clinical development include, among others:

- delays in reaching a consensus with regulatory agencies on trial design;
- delays in reaching, or failing to reach, agreement on acceptable terms with prospective clinical research organizations, or CROs, and clinical trial sites;
- difficulties in obtaining required Institutional Review Board, or IRB, or Ethics Committee, or EC, approval at each clinical trial site;
- challenges in recruiting and enrolling suitable patients to participate in clinical trials that meet the criteria of the protocol for the clinical trial;

- imposition of a clinical hold by regulatory agencies or IRBs or ECs for any reason, including safety concerns or after an inspection of clinical operations or trial sites;
- failure by CROs, other third parties or us to adhere to clinical trial requirements;
- failure to perform in accordance with the FDA's good clinical practices, or GCP, or applicable regulatory guidelines in other countries;
- inadequate quantity or quality of a product candidate or other materials necessary to conduct clinical trials, including, for example, delays in the testing, validation, manufacturing or delivery of the product candidates to the clinical sites;
- patients not completing participation in a trials or not returning for post-treatment follow-up, including as a result of the ongoing COVID-19 pandemic;
- expected or unexpected safety issues, including occurrence of serious adverse events, or SAEs, associated with our product candidates in clinical trials that are viewed as outweighing the product candidate's potential benefits or reports may arise from preclinical or clinical testing of other similar cancer therapies that raise safety or efficacy concerns about our product candidates;
- changes in regulatory requirements or guidance that require amending or submitting new clinical protocols or submitting additional data;
- lack of adequate funding to continue the clinical trial; or
- geopolitical or other events that unexpectedly disrupt, delay or generally interfere in regional or worldwide operations of clinical trial sites, clinical vendors or other operations relevant to the conduct of relevant development activities.

Delays, including delays caused by the above factors, can be costly and could negatively affect our ability to complete a clinical trial. If we or our partners are not able to successfully complete clinical trials, we or they will not be able to obtain regulatory approval and will not be able to commercialize our product candidates or our partners' product candidates based on our technology.

An inability to enroll sufficient numbers of patients in our clinical trials could result in increased costs and longer development periods for our product candidates.

Clinical trials require sufficient patient enrollment, which is a function of many factors, including:

- the size and nature of the patient population;
- the severity of the disease under investigation;
- the nature and complexity of the trial protocol, including eligibility criteria for the trial;
- the design of the trial;
- the number of clinical trial sites and the proximity of patients to those sites;
- standard of care in the diseases under investigation;
- the commitment of clinical investigators to identify eligible patients;
- clinicians' and patients' perceptions as to the potential advantages and risks of the drug being studied in relation to other available therapies, including any new drugs that may be approved for the indications we are investigating;
- the risk that patients enrolled in clinical trials will drop out of the trials before completion or, because they are late-stage cancer patients, will not survive the full terms of the clinical trials;

- the ability of our clinical trial sites to continue key activities, such as clinical trial site data monitoring and patient visits, due to limitations on travel imposed or recommended by federal or state governments, employers and others as a result of the COVID-19 pandemic or other worldwide events; and

- the risk that patients may be affected by COVID-19 or measures taken in response to the COVID-19 pandemic and are unable to travel to our clinical trial sites.

In addition, our clinical trials will compete with other clinical trials for product candidates that are in the same therapeutic areas as our current and future product candidates. This competition will reduce the number and types of patients available to us, because some patients who might have opted to enroll in our trials may instead opt to enroll in a trial conducted by one of our competitors. Since the number of qualified clinical investigators is limited, we expect to conduct some of our clinical trials at the same clinical trial sites that some of our competitors use, which will reduce the number of patients who are available for our clinical trials at such sites. Moreover, because our current and future product candidates represent a departure from more commonly used methods for cancer treatment, potential patients and their doctors may be inclined to use conventional therapies, such as chemotherapy, rather than enroll patients in our ongoing or any future clinical trial.

Challenges in recruiting and enrolling suitable patients to participate in clinical trials that meet the criteria of the protocol could increase costs and result in delays to our current development plan for UpRi, our lead product candidate, XMT-1592 or any other current or future product candidate.

Our product candidates or ADCs developed or commercialized by our competitors may cause undesirable side effects or have other properties that halt their clinical development, delay or prevent regulatory approval of our product candidates or limit their commercial potential.

Undesirable side effects caused by our product candidates or ADCs being developed or commercialized by our partners or competitors could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the denial of regulatory approval by the FDA or other regulatory authorities and potential product liability claims. Further, clinical trials by their nature utilize a sample of the potential patient population. With a limited number of subjects and limited duration of exposure, rare and severe side effects of our product candidates or those of our competitors may only be uncovered with a significantly larger number of patients exposed to the drug. SAEs, including death, deemed to be caused by our product candidates or those of our competitors, either before or after receipt of marketing approval, could have a material adverse effect on the development of our product candidates and our business as a whole.

Patients in our ongoing clinical trials have experienced SAEs, including without limitation death, pneumonitis, renal impairment, abdominal pain, fatigue, vomiting, sepsis, and pyrexia. We expect that certain patients in ongoing and future trials will experience additional SAEs, including those that may result in death, as our product candidates progress through clinical development. These or additional undesirable side effects caused by our product candidates or those of our competitors, either before or after receipt of marketing approval, could result in a number of potentially significant negative consequences, including:

- our clinical trials may be put on hold;

- treatment-related side effects could affect patient recruitment for our clinical trials;

- we may be unable to obtain regulatory approval for our product candidates;

- regulatory authorities may withdraw or limit their approvals of our product candidates;

- regulatory authorities may require the addition of labeling statements, such as a contraindication, black box warnings or additional warnings;

- the FDA may require development of a REMS with Elements to Assure Safe Use as a condition of approval or post-approval;

- we may decide to remove such product candidates from the marketplace;

- we may be subject to regulatory investigations and government enforcement actions;

- we could be sued and held liable for harm caused to patients; and
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of our product candidates and could substantially increase commercialization costs.

We may choose not to develop a potential product candidate, or we may suspend or terminate one or more discovery or preclinical programs or our product candidates.

At any time and for any reason, we may determine that one or more of our discovery programs, preclinical programs or product candidates does not have sufficient potential to warrant the allocation of resources toward such program or product candidate. Furthermore, because we have limited financial and personnel resources, we have placed significant focus on the development of our product candidates UpRi and XMT-1592. Accordingly, we may choose not to develop a product candidate or elect to suspend or terminate one or more of our discovery or preclinical programs. If we suspend or terminate a program or product candidate in which we have invested significant resources, we will have expended resources on a program or product candidate that will not provide a full return on our investment. We may also cease developing a product candidate for a particular indication. For example, in November 2021, we determined to cease developing UpRi as a single agent in patients with NSCLC and determined to focus future development on patients with ovarian cancer. As a result, we may have missed an opportunity to have allocated those resources to potentially more productive uses, including existing or future programs or product candidates. If we do not accurately evaluate the commercial potential or target market for a particular future product candidate, we may relinquish valuable rights to future product candidates through collaboration, licensing or other royalty arrangements.

We or our partners may fail to discover and develop additional potential product candidates.

Our and our partners' research programs to identify new product candidates will require substantial technical, financial and human resources, and we or our partners may be unsuccessful in our or their efforts to identify new product candidates. If we or our partners are unable to identify suitable additional product candidates for preclinical and clinical development, our or their ability to develop product candidates and our ability to obtain revenues from commercializing our products or to receive royalties from our partners' sales of their products in future periods could be compromised, which could result in significant harm to our financial position and adversely impact our stock price.

Risks related to our financial position and need for additional capital

We have incurred net losses since our inception, we have no products approved for commercial sale and we anticipate that we will continue to incur substantial operating losses for the foreseeable future. We may never achieve or sustain profitability.

We have incurred net losses since our inception. Our net loss was $170.1 million for the year ended December 31, 2021. As of December 31, 2021, we had an accumulated deficit of $450.5 million. We do not know when or whether we will become profitable. To date, we have not commercialized any products and therefore have never generated any revenues from the sale of products, and we do not expect to generate any product revenues in the foreseeable future. Our losses have resulted principally from costs incurred in our discovery and development activities. Our net losses may fluctuate significantly from quarter to quarter and year to year.

We have devoted most of our financial resources to research and development, including our clinical and preclinical development activities. To date, we have financed our operations primarily with the proceeds from our initial public offering, our follow-on public offerings in 2019 and 2020, the use of our at-the-market, or ATM, equity offering program, and our strategic partnerships. The amount of our future net losses will depend, in part, on the rate of our future expenditures. We have not completed pivotal clinical trials for any product candidate and only have two product candidates in clinical trials. It will be several years, if ever, before we have a product candidate ready for commercialization. Even if we obtain regulatory approval to market a product candidate, our future revenues would depend upon the size of the market or markets in which our product candidates received such approval and our ability to achieve sufficient market acceptance, reimbursement from third-party payors and adequate market share for our product candidates in those markets.

We expect to continue to incur significant expenses and operating losses over the next several years. We anticipate that our expenses will increase significantly in connection with our ongoing activities, as we:

- continue clinical development activities for our clinical product candidates UpRi and XMT-1592;

- develop a diagnostic assay for the NaPi2b biomarker;
- complete IND-enabling studies for our preclinical development candidates XMT-2056 and XMT-1660;
- continue activities to discover, validate and develop additional product candidates;
- obtain marketing approvals for our current and future product candidates for which we complete clinical trials;
- develop a sustainable and scalable manufacturing process for our product candidates, including establishing and maintaining commercially viable supply and manufacturing relationships with third parties;
- address any competing technological and market developments;
- maintain, expand and protect our intellectual property portfolio; and
- hire additional research, development and general and administrative personnel.

If we are required by the FDA or any equivalent foreign regulatory authority to perform clinical trials or preclinical trials in addition to those we currently expect to conduct, or if there are any delays in completing the clinical trials of UpRi, XMT-1592, or any other current or future product candidates, our expenses could increase.

To become and remain profitable, we must succeed in developing our product candidates, obtaining regulatory approval for them, and manufacturing, marketing and selling those products for which we may obtain regulatory approval. We may not succeed in these activities, and we may never generate revenue from product sales or strategic partnerships in an amount sufficient to achieve profitability. Even if we achieve profitability in the future, we may not be able to sustain profitability in subsequent periods. Our failure to become or remain profitable would depress our market value and could impair our ability to raise capital, expand our business, discover or develop other product candidates or continue our operations.

We have a credit facility that requires us to comply with certain operating covenants and places restrictions on our operating and financial flexibility.

In October 2021, we entered into a Loan and Security Agreement, or the New Credit Facility, with Oxford Finance LLC as the collateral agent and a lender, and SVB as a lender, together, the Lenders. Pursuant to the New Credit Facility, as amended in February 2022, we may borrow up to an aggregate of $100 million, which includes $60 million available immediately, $20 million in a tranche that is subject to meeting certain development milestones, and an additional tranche of $20 million, which is subject to conditional approval from the Lenders. The New Credit Facility is secured by substantially all of our personal property owned or later acquired, excluding intellectual property (but including the right to payments and proceeds from intellectual property), and a negative pledge on intellectual property.

The New Credit Facility also includes customary representations and warranties, affirmative and negative covenants and conditions to drawdowns, as well as customary events of default. Certain of the customary negative covenants limit our ability, among other things, to incur future debt, grant liens, make investments, make acquisitions, distribute dividends, make certain restricted payments and sell assets, subject in each case to certain exceptions. Our failure to comply with these covenants would result in an event of default under the Loan Agreement and could result in the acceleration of the obligations we owe pursuant to the New Credit Facility.

We will require substantial additional financing to achieve our goals, and a failure to obtain this necessary capital when needed could force us to delay, limit, reduce or terminate our product development or commercialization efforts.

Our cash and cash equivalents were $177.9 million as of December 31, 2021. We have utilized substantial amounts of cash since our inception and expect that we will continue to expend substantial resources for the foreseeable future developing UpRi, XMT-1592, and any other current or future product candidates. These expenditures may include costs associated with research and development, conducting preclinical studies and clinical trials, potentially obtaining regulatory approvals and manufacturing products, as well as marketing and selling products approved for sale, if any, and potentially acquiring new technologies. In addition, other unanticipated costs may arise. Because the outcome of our planned and anticipated clinical trials is highly uncertain, we cannot reasonably estimate the actual amounts necessary to successfully complete the development and commercialization of our product candidates. Our costs will increase if we experience any delays in our clinical trials for UpRi, XMT-1592 or any other current or future product candidates, including delays in enrollment of patients. We also incur costs associated with operating as a public company, hiring additional personnel and expanding our facilities.

Our future capital requirements depend on many factors, including:

- the scope, progress, results and costs of researching and developing UpRi, XMT-1592 and any other current or future product candidates and conducting preclinical studies and clinical trials;
- the timing of, and the costs involved in, obtaining regulatory approvals for UpRi, XMT-1592 and any other current or future product candidates if preclinical studies and clinical trials are successful;
- the cost of manufacturing UpRi, XMT-1592 and any other current or future product candidates for clinical trials in preparation for regulatory approval and in preparation for commercialization;
- the cost of commercialization activities for UpRi, XMT-1592 and any other current or future product candidates, if any product candidates are approved for sale, including manufacturing, marketing, sales and distribution costs;
- our ability to establish and maintain strategic partnerships, licensing or other arrangements and the financial terms of such agreements;
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims, including litigation costs and the outcome of such litigation;
- the timing, receipt and amount of sales of, or royalties on, our future products, if any, or products developed by our partners;
- the emergence of competing cancer therapies and other adverse market developments; and
- the requirement for or the cost of developing companion diagnostics and/or complementary diagnostics.

As of December 31, 2021, we had cash and cash equivalents of $177.9 million and, subsequently, we received a $40 million upfront payment under the Janssen Collaboration and $45.6 million of net proceeds received from sales of our common stock under our 2020 ATM. In addition, we currently have the option to borrow $35 million under the New Credit Facility. Taken together, we believe that our current cash and cash equivalents plus the available borrowings under the New Credit Facility will be sufficient to fund our current operating plan commitments into the second half of 2023. However, we have based these estimates on assumptions that may prove to be wrong, and our operating plan may change as a result of many factors currently unknown to us and we may need additional funds sooner than planned. Additional funds may not be available when we need them on terms that are acceptable to us, or at all. Our ability to borrow funds under the New Credit Facility is subject to us complying with the applicable covenants at the time we request a drawdown. If adequate funds are not available to us on a timely basis, we may be required to delay, limit, reduce or terminate preclinical studies, clinical trials or other development activities for one or more of our product candidates or delay, limit, reduce or terminate our establishment of sales and marketing capabilities or other activities that may be necessary to commercialize our product candidates. 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.

Raising additional capital may cause dilution to our existing stockholders, restrict our operations or require us to relinquish rights to our technologies or ADC product candidates.

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our capital need through a variety of means, including through private and public equity offerings, debt financings, collaborations, strategic alliances and licensing arrangements. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interests of our common stockholders will be diluted, and the terms of such equity or convertible debt securities may include liquidation or other preferences that are senior to or otherwise adversely affect the rights of our common stockholders. Additional debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take certain actions, such as incurring future debt, making capital expenditures, declaring dividends or encumbering our assets to secure future indebtedness, each of which could adversely impact our ability to conduct our business and execute our operating plan. If we raise additional funds through strategic partnerships with third parties, we may have to relinquish valuable rights to our technologies, including our platforms, or product candidates, or grant licenses on terms that are not favorable to us. If we are unable to raise additional funds through equity or debt financing when needed, we may be required to delay, limit, reduce or terminate our product development or commercialization efforts for UpRi, XMT-1592, or any other current or future product candidates, or grant rights to third parties to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

We may expend our resources to pursue a particular product candidate and fail to capitalize on product candidates that may be more profitable or for which there is a greater likelihood of success.

Because we have limited financial and managerial resources, we focus on specific product candidates. As a result, we may forgo or delay pursuit of opportunities with other product candidates that later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Failure to properly assess potential product candidates could result in our focus on product candidates with low market potential, which would harm our business and financial condition. Our spending on current and future research and development programs and product candidates for specific indications may not yield any commercially viable product candidates. If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that product candidate through partnering, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such product candidate.

Risks related to our reliance on third parties

Because we rely on third-party manufacturing and supply partners, our supply of research and development, preclinical and clinical development materials may become limited or interrupted or may not be of satisfactory quantity or quality.

We rely on third-party contract manufacturers to manufacture our preclinical and clinical trial product supplies, and we lack the internal resources and the capability to manufacture any product candidates on a clinical or commercial scale. The facilities used by our contract manufacturers to manufacture the active pharmaceutical ingredient and final drug product must be acceptable to the FDA and other comparable foreign regulatory agencies pursuant to inspections that would be conducted after we submit our marketing application or relevant foreign regulatory submission to the applicable regulatory agency. There can be no assurance that our preclinical and clinical development product supplies will be sufficient, uninterrupted or of satisfactory quality or continue to be available at acceptable prices. If our contract manufacturers cannot successfully manufacture material that conforms to our specifications and the strict regulatory requirements of the FDA or applicable foreign regulatory agencies, they will not be able to secure or maintain regulatory approval for their manufacturing facilities. Any replacement of our manufacturers could require significant effort and expertise because there may be a limited number of qualified replacements.

The manufacturing process for a product candidate is subject to FDA and foreign regulatory authority review. Suppliers and manufacturers must meet applicable manufacturing requirements and undergo rigorous facility and process validation tests required by regulatory authorities in order to comply with regulatory standards, such as cGMP. We have no direct control over our contract manufacturers' ability to maintain adequate quality control, quality assurance and qualified personnel. In the event that any of our manufacturers fails to comply with regulatory requirements or to perform its obligations to us in relation to quality, timing or otherwise, or if our supply of components or other materials becomes limited or interrupted for other reasons, we may be forced to manufacture the materials ourselves, for which we currently do not have the capabilities or resources, or enter into an agreement with another third party, which we may not be able to do on reasonable terms, if at all. In some cases, the technical skills or technology required to manufacture our product candidates may be unique or proprietary to the original manufacturer and we may have difficulty transferring such skills or technology to another third party and a feasible alternative may not exist. These factors would increase our reliance on such manufacturer or require us to obtain a license from such manufacturer in order to have another third-party manufacture our product candidates. If we are required to change manufacturers for any reason, we will be required to verify that the new manufacturer maintains facilities and procedures that comply with quality standards and with all applicable regulations and guidelines. The delays associated with the verification of a new manufacturer could negatively affect our ability to develop product candidates in a timely manner or within budget. Our reliance on contract manufacturers also exposes us to the possibility that they, or third parties with access to their facilities, will have access to and may appropriate our trade secrets or other proprietary information.

We expect to continue to rely on third-party manufacturers if we receive regulatory approval for any product candidate. To the extent that we have existing, or enter into future, manufacturing arrangements with third parties, we will depend on these third parties to perform their obligations in a timely manner consistent with contractual and regulatory requirements, including those related to quality control and assurance. If we are unable to obtain or maintain third-party manufacturing for product candidates, or to do so on commercially reasonable terms, we may not be able to develop and commercialize our product candidates successfully. Our or a third party's failure to execute on our manufacturing requirements and comply with cGMP could adversely affect our business in a number of ways, including:

- a delay or inability to initiate or continue clinical trials of product candidates under development;
- delay in submitting regulatory applications, or delay or failure to receive regulatory approvals, for product candidates;

- loss of the cooperation of an existing or future strategic partner;
- subjecting third-party manufacturing facilities or our manufacturing facilities to additional inspections by regulatory authorities;
- a requirement to cease distribution or to recall batches of our product candidates;
- in the event of approval to market and commercialize a product candidate, an inability to meet commercial demands for our products; and
- fines, adverse publicity, and civil and criminal enforcement and sanctions.

We, or our third-party manufacturers, may be unable to successfully scale-up manufacturing of our ADC product candidates in sufficient quality and quantity, which would delay or prevent us from developing our ADC product candidates and commercializing approved products, if any.

In order to conduct clinical trials of our product candidates and commercialize any approved product candidates, we, or our manufacturing partners, will need to manufacture them in large quantities. We, or our manufacturing partners, may be unable to successfully increase the manufacturing capacity for any of our product candidates in a timely or cost-effective manner, or at all. In addition, quality issues may arise during scale-up activities. If we, or any manufacturing partners, are unable to successfully scale up the manufacture of our product candidates in sufficient quality and quantity, the development, testing and clinical trials of that product candidate may be delayed or infeasible, and regulatory approval or commercial launch of any resulting product may be delayed or not obtained, which could significantly harm our business. We have evaluated which third-party manufacturers to engage for scale-up to commercial supply of our product candidates, including UpRi and XMT-1592, and we have begun to transfer and scale-up certain manufacturing activities. If we are unable to obtain or maintain third-party manufacturing for commercial supply of our product candidates, or to do so on commercially reasonable terms, we may not be able to develop and commercialize our product candidates successfully.

We rely on third parties to conduct preclinical studies and clinical trials for UpRi and XMT-1592 and if such third parties do not properly, timely and successfully perform their obligations to us, we may not be able to obtain regulatory approvals for UpRi, XMT-1592, or any other current or future ADC product candidates.

We designed the ongoing clinical trials for UpRi and XMT-1592, and we intend to design any future clinical trials for any future unpartnered product candidates that we may develop if preclinical studies are successful. However, we rely on CROs, clinical sites, investigators and other third parties to assist in managing, monitoring and otherwise carrying out many of these trials. As a result, we have less direct control over the conduct, timing and completion of these clinical trials and the management of data developed through clinical trials than would be the case if we were relying entirely upon our own staff. These CROs, investigators and other third parties are not our employees and we have limited control over the amount of time and resources that they dedicate to our programs. We compete with many other companies for the resources of these third parties. These third parties may have contractual relationships with other entities, some of which may be our competitors, which may draw time and resources from our programs. The third parties with whom we contract might not be diligent, careful or timely in conducting our preclinical studies or clinical trials, or complying with cGLP or cGCP, as applicable, resulting in the preclinical studies or clinical trials being delayed or unsuccessful.

The third parties on whom we rely generally may terminate their engagements at any time, and having to enter into alternative arrangements would delay development and commercialization of our product candidates. Communicating with outside parties can also be challenging, potentially leading to mistakes as well as difficulties in coordinating activities. Outside parties may:

- have staffing difficulties;
- fail to comply with contractual obligations;
- experience regulatory compliance issues;
- undergo changes in priorities or become financially distressed; or
- form relationships with other entities, some of which may be our competitors.

The FDA and comparable foreign regulatory authorities require compliance with regulations and standards, including GCP, for designing, conducting, monitoring, recording, analyzing and reporting the results of clinical trials to assure that the data and results are credible and accurate and that the rights, integrity and confidentiality of trial participants are protected. Although we rely, and intend to continue to rely, on third parties to conduct our clinical trials, they are not our employees, and we are responsible for ensuring that each of these clinical trials is conducted in accordance with its general investigational plan, protocol and other requirements. Our reliance on these third parties for research and development activities will reduce our control over these activities but will not relieve us of our responsibilities. For any violations of laws and regulations during the conduct of our clinical trials, we could be subject to untitled and warning letters or enforcement action that may include civil penalties up to and including criminal prosecution.

If these third parties do not successfully carry out their duties under their agreements, if the quality or accuracy of the data they obtain is compromised due to their failure to adhere to clinical trial protocols or to regulatory requirements, or if they otherwise fail to comply with clinical trial protocols or meet expected deadlines, the clinical trials of our product candidates may not meet regulatory requirements. The FDA enforces GCP regulations through periodic inspections of clinical trial sponsors, principal investigators and trial sites. If we or our CROs fail to comply with applicable GCPs or other regulatory requirements, the clinical data generated in our clinical trials may be deemed unreliable, third parties may need to be replaced, we may be subject to negative publicity, fines and civil or criminal sanctions, and preclinical development activities or clinical trials may be extended, delayed, suspended or terminated. If any of these events occur, we may not be able to obtain regulatory approval of our product candidates on a timely basis or at all.

We depend on strategic partnerships with other companies to assist in the research, development and commercialization of our ADC platforms and ADC product candidates. If our existing partners do not perform as expected, this may negatively affect our ability to commercialize our ADC product candidates, generate revenues through technology licensing, or otherwise negatively affect our business.

We have established strategic partnerships and intend to continue to establish strategic partnerships with third parties to research, develop and commercialize our platforms and existing and future product candidates. In February 2022, we entered into a collaboration agreement with Janssen Biotech, Inc. for the research, development and commercialization of ADC candidates leveraging our Dolasynthen platform. We had also entered into a collaboration agreement with Merck KGaA for the development and commercialization of ADC candidates leveraging our Dolaflexin platform. Under these collaborations, we will depend on our partners to design and conduct their clinical trials. As a result, we will not be able to control or oversee the conduct of these programs by our partners and those programs may not be successful, which may negatively impact our business operations. In addition, if any of these partners withdraw support for these programs or proposed products or otherwise impair their development or experience negative results, our business and our product candidates could be negatively affected.

Our partners may terminate their agreements with us for cause under certain circumstances or at will in certain cases and discontinue use of our technologies. In addition, we cannot control the amount and timing of resources our partners may devote to products utilizing or incorporating our technology. Moreover, our relationships with our partners may divert significant time and effort of our scientific staff and management team and require effective allocation of our resources to multiple internal and collaborative projects. Our partners may fail to perform their obligations under the collaboration agreements or may not perform their obligations in a timely manner. If conflicts arise between our partners and us, the other party may act in a manner adverse to us and could limit our ability to implement our strategies. If any of our partners terminate or breach our agreements with them, or otherwise fail to complete their obligations in a timely manner, it may have a detrimental effect on our financial position by reducing or eliminating the potential for us to receive technology access and license fees, milestones and royalties, reimbursement of development costs, as well as possibly requiring us to devote additional efforts and incur costs associated with pursuing internal development of product candidates. Furthermore, if our partners do not prioritize and commit sufficient resources to programs associated with our product candidates or collaboration product candidates, we or our partners may be unable to commercialize these product candidates, which would limit our ability to generate revenue and become profitable.

Our partners may separately pursue competing products, therapeutic approaches or technologies to develop treatments for the diseases targeted by us or our partners. Competing products, either developed by the partners or to which the partners have rights, may result in the withdrawal of partner support for our product candidates. Even if our partners continue their contributions to the strategic partnerships, they may nevertheless determine not to actively pursue the development or commercialization of any resulting products. Additionally, if our partners pursue different clinical or regulatory strategies with their product candidates based on our platforms or technologies, adverse events with their product candidates could negatively affect our product candidates utilizing similar technologies. Any of these developments could harm our product development efforts.

To date, we have depended on a small number of partners for a substantial portion of our revenue. The loss of any one of these partners could result in a material decline in our revenue.

We have entered into strategic partnerships with a limited number of companies. To date, a substantial portion of our revenue has resulted from payments made under agreements with our strategic partners, and we expect that a portion of our revenue will continue to come from strategic partnerships. The loss of any of our partners, or the failure of our partners to perform their obligations under their agreements with us, including paying license or technology fees, milestone payments, royalties or reimbursements, could have a material adverse effect on our financial performance. Payments under our existing and future strategic partnerships are also subject to significant fluctuations in both timing and amount, which could cause our revenue to fall below the expectations of securities analysts and investors and cause a decrease in our stock price.

We may seek to establish additional strategic partnerships, and if we are not able to establish them on commercially reasonable terms, or maintain them, we may have to alter our development and commercialization plans.

We continue to strategically evaluate our partnerships and, as appropriate, we expect to enter into additional strategic partnerships in the future, including potentially with major biotechnology or biopharmaceutical companies. We face significant competition in seeking appropriate partners for our product candidates, and the negotiation process is time-consuming and complex. In order for us to successfully partner our product candidates, potential partners must view these product candidates as economically valuable in markets they determine to be attractive in light of the terms that we are seeking and other available products for licensing by other companies. Even if we are successful in our efforts to establish strategic partnerships, the terms that we agree upon may not be favorable to us, and we may not be able to maintain such strategic partnerships if, for example, development or approval of a product candidate is delayed or sales of an approved product are disappointing. Any delay in entering into strategic partnership agreements related to our product candidates could delay the development and commercialization of such candidates and reduce their competitiveness even if they reach the market. If we are not able to generate revenue under our strategic partnerships when and in accordance with our expectations or the expectations of industry analysts, this failure could harm our business and have an immediate adverse effect on the trading price of our common stock.

If we fail to establish and maintain additional strategic partnerships related to our unpartnered product candidates, we will bear all of the risk and costs related to the development of any such product candidate, and we may need to seek additional financing, hire additional employees and otherwise develop expertise, such as regulatory expertise, for which we have not budgeted. If we were not successful in seeking additional financing, hiring additional employees or developing additional expertise, our cash burn rate would increase or we would need to take steps to reduce our rate of product candidate development. This could negatively affect the development of any unpartnered product candidate.

Risks related to commercialization of our ADC product candidates

Our future commercial success depends upon attaining significant market acceptance of our ADC product candidates, if approved, among physicians, patients and health care payors.

Even if we obtain regulatory approval for UpRi, XMT-1592, or any other current or future product candidates that we may develop or acquire in the future, the product candidate may not gain market acceptance among physicians, health care payors, patients and the broader healthcare community. Market acceptance of any approved products depends on a number of factors, including:

- the efficacy and safety of the product, as demonstrated in clinical trials;
- the indications for which the product is approved and the label approved by regulatory authorities for use with the product, including any warnings that may be required on the label;
- acceptance by physicians and patients of the product as a safe and effective treatment;
- the cost, safety and efficacy of treatment in relation to alternative treatments;
- the availability of adequate reimbursement and pricing by third-party payors and government authorities;
- relative convenience and ease of administration;
- the prevalence and severity of adverse side effects; and

- the effectiveness of our sales and marketing efforts.

Perceptions of any product are influenced by perceptions of competitors' products that are in the same class of drugs or have a similar mechanism of action. As a result, adverse public perception of our competitors' products may negatively impact the market acceptance of our product candidates. Market acceptance is critical to our ability to generate significant revenue and become profitable. Any therapeutic candidate, if approved and commercialized, may be accepted in only limited capacities or not at all. If any approved products are not accepted by the market to the extent that we expect, we may not be able to generate significant revenue and our business would suffer.

The incidence and prevalence for target patient populations of our drug candidates have not been established with precision. If the market opportunities for our drug candidates are smaller than we estimate or if any approval that we obtain is based on a narrower definition of the patient population, our revenue and ability to achieve profitability will be adversely affected, possibly materially.

The precise incidence and prevalence of ovarian cancer and other cancers with NaPi2b expression are unknown. Our projections of both the number of people who have these diseases, as well as the subset of people with these diseases who have the potential to benefit from treatment with our product candidates, are based on estimates. The total addressable market opportunity for UpRi or XMT-1592 for the treatment of ovarian cancer and non-squamous non-small cell lung cancer with NaPi2b expression will ultimately depend upon, among other things, the diagnosis criteria included in the final label for UpRi or XMT-1592, if our product candidates are approved for sale for these indications, acceptance by the medical community and patient access, drug pricing and reimbursement. The number of patients who can be treated with our product candidates may turn out to be lower than expected, patients may not be otherwise amenable to treatment with our drugs, or new patients may become increasingly difficult to identify or gain access to, all of which would adversely affect our results of operations and our business.

If we are unable to establish sales, marketing and distribution capabilities, we may not be successful in commercializing our product candidates if and when they are approved.

We do not have a sales or marketing infrastructure and have no experience in the sale, marketing or distribution of products. To achieve commercial success for any product for which we have obtained marketing approval, we will need to establish a sales and marketing organization or pursue a collaborative arrangement for such sales and marketing.

In the future, we expect to build a focused sales and marketing infrastructure to market UpRi, XMT-1592, and any other current or future product candidates in the United States and certain foreign jurisdictions, if and when they are approved. There are risks involved with establishing our own sales, marketing and distribution capabilities.

For example, recruiting and training a sales force is expensive and time consuming and could delay any product launch. If the commercial launch of a product candidate for which we recruit a sales force and establish marketing capabilities is delayed or does not occur for any reason, we would have prematurely or unnecessarily incurred these commercialization expenses. This may be costly, and our investment would be lost if we cannot retain or reposition our sales and marketing personnel.

Factors that may inhibit our efforts to commercialize our products on our own include:

- our inability to recruit, train and retain adequate numbers of effective sales and marketing personnel;
- the inability of sales personnel to obtain access to physicians;
- the lack of adequate numbers of physicians to prescribe any future products;
- the lack of complementary products to be offered by sales personnel, which may put us at a competitive disadvantage relative to companies with more extensive product lines; and
- unforeseen costs and expenses associated with creating an independent sales and marketing organization.

If we are unable to establish our own sales, marketing and distribution capabilities and enter into arrangements with third parties to perform these services, our product revenues and our profitability, if any, are likely to be lower than if we were to market, sell and distribute any products that we develop ourselves.

In addition, we may not be successful in entering into arrangements with third parties to sell, market and distribute certain of our product candidates outside of the United States or may be unable to do so on terms that are favorable to us. We likely will have limited control over such third parties, and any of them may fail to devote the necessary resources and attention to sell and market our products effectively. If we do not establish sales, marketing and distribution capabilities successfully, either on our own or in collaboration with third parties, we will not be successful in commercializing our product candidates.

Reimbursement may be limited or unavailable in certain market segments for our ADC product candidates, which could make it difficult for us to sell our products profitably.

In both domestic and foreign markets, sales of any of our product candidates, if approved, will depend, in part, on the extent to which the costs of our products will be covered by third-party payors, such as government health programs, commercial insurance and managed health care organizations. These third-party payors decide which drugs will be covered and establish reimbursement levels for those drugs. The containment of health care costs has become a priority of foreign and domestic governments as well as private third-party payors. The prices of drugs have been a focus in this effort. Governments and private third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medications, which could affect our ability to sell our product candidates profitably. Cost-control initiatives could cause us to decrease the price we might establish for products, which could result in lower than anticipated product revenues.

Reimbursement by a third-party payor may depend upon a number of factors, including the third-party payor's determination that use of a product is:

- a covered benefit under its health plan;
- safe, effective and medically necessary;
- appropriate for the specific patient;
- cost-effective; and
- neither experimental nor investigational.

Adverse pricing limitations may hinder our ability to recoup our investment in UpRi, XMT-1592, or any other current or future product candidates, even if such product candidates obtain marketing approval.

Obtaining coverage and reimbursement approval for a product from a government or other third-party payor is a time consuming and costly process that could require us to provide supporting scientific, clinical and cost-effectiveness data for the use of our products to the payor. Further, there is significant uncertainty related to third-party payor coverage and reimbursement of newly approved drugs. We may not be able to provide data sufficient to gain acceptance with respect to coverage and reimbursement. We cannot be sure that coverage or adequate reimbursement will be available for any of our product candidates. Also, we cannot be sure that reimbursement amounts will not reduce the demand for, or the price of, our products. If reimbursement is not available or is available only to limited levels, we may not be able to commercialize certain of our products. In addition, in the United States, third-party payors are increasingly attempting to contain health care costs by limiting both coverage and the level of reimbursement of new drugs. As a result, significant uncertainty exists as to whether and how much third-party payors will reimburse patients for their use of newly approved drugs, which in turn will put pressure on the pricing of drugs. Manufacturers further may be required to offer price concessions to achieve sales or favorable coverage.

Price controls may be imposed in foreign markets, which may adversely affect our future profitability.

In some countries, including member states of the European Union, the pricing of prescription drugs is subject to governmental control. Additional countries may adopt similar approaches to the pricing of prescription drugs. In such countries, pricing negotiations with governmental authorities can take considerable time after receipt of marketing approval for a product. In addition, there can be considerable pressure by governments and other stakeholders on prices and reimbursement levels, including as part of cost containment measures. Political, economic and regulatory developments may further complicate pricing negotiations, and pricing negotiations may continue after reimbursement has been obtained. Reference pricing used by various European Union member states and parallel distribution, or arbitrage between low-priced and high-priced member states, can further reduce prices. In some countries, we may be required to conduct a clinical trial or other trials that compare the cost-effectiveness of our product candidates to other available therapies in order to obtain or maintain reimbursement or pricing approval. We cannot be sure that such prices and reimbursement will be acceptable to us or our strategic partners. Publication of discounts by third-party payors or authorities may lead to further pressure on the prices or reimbursement levels

within the country of publication and other countries. If pricing is set at unsatisfactory levels or if reimbursement of our products is unavailable or limited in scope or amount, our revenues from sales by us or our strategic partners and the potential profitability of our product candidates in those countries would be negatively affected.

We face substantial competition, and if our competitors develop and market products that are more effective, safer or less expensive than any of our current or future product candidates, our commercial opportunities will be negatively impacted.

The biotechnology and biopharmaceutical industries are characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. Many third parties compete with us in developing various approaches to cancer therapy. They include pharmaceutical companies, biotechnology companies, academic institutions and other research organizations. Any treatments developed by our competitors could be superior to our product candidates. It is possible that these competitors will succeed in developing technologies that are more effective than our platforms or product candidates or that would render our platforms obsolete, noncompetitive or not economical. We anticipate that we will face increased competition in the future as additional companies enter our market and scientific developments surrounding other cancer therapies continue to accelerate.

We are also aware of multiple companies with ADC technologies that may be competitive to our platforms, including Daiichi Sankyo, ImmunoGen, Gilead (Immunomedics), Pfizer and SeaGen. These companies or their partners, including Astellas, AstraZeneca, AbbVie, Genentech/Roche and Takeda, may develop product candidates which compete in the same indications as our current and future product candidates. Multiple companies are also developing immune stimulating ADCs which could compete with our Immunosynthen products, including Bolt Biotherapeutics, Inc., Takeda, and Silverback Therapeutics, Inc. We expect to compete on improved efficacy, safety and tolerability compared to other product candidates and if our products are not demonstrably superior in these respects compared to other approved therapeutics, we may not be able to compete effectively. Products we may develop in the future are also likely to face competition from other products and therapies, some of which we may not currently be aware.

Many of our competitors have significantly greater financial resources and expertise in research and development, manufacturing, preclinical studies, conducting clinical trials, obtaining regulatory approval and marketing than we do. In addition, many of these competitors are active in seeking patent protection and licensing arrangements in anticipation of collecting royalties for use of technology that they have developed. Large pharmaceutical companies, in particular, have extensive experience in clinical testing, obtaining marketing approvals, establishing clinical trial sites, recruiting patients and in manufacturing pharmaceutical products and may succeed in discovering, developing and commercializing products in our field before we do. Smaller or early-stage companies may also prove to be significant competitors, particularly through strategic partnerships with large and established companies. These third parties compete with us in recruiting and retaining qualified scientific and management personnel, as well as in acquiring technologies complementary to our programs.

In addition, if our product candidates are approved and commercialized, we may face competition from biosimilars. The route to market for biosimilars was established with the passage of the Health Care Reform Act in March 2010. The Biologics Price Competition and Innovation Act of 2009, or BPCIA, establishes a pathway for the FDA approval of follow-on biologics and provides twelve years data exclusivity for reference products. The BPCIA is complex and continues to be interpreted and implemented by the FDA. In addition, government proposals have sought to reduce the 12-year reference product exclusivity period. Further, since the BPCIA was enacted as part of the overall Health Care Reform Act, current litigation challenges to that Act, discussed more in full below, could impact the validity of the BPCIA. As a result, there still remains significant uncertainty as to the ultimate impact, implementation and regulatory interpretation of the BPCIA.

In Europe, the European Medicines Agency has issued guidelines for approving products through an abbreviated pathway, and biosimilars have been approved in Europe. If a biosimilar version of one of our potential products were approved in the United States or Europe, it could have a negative effect on sales and gross profits of the potential product and our financial condition.

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

- advance our technology platforms;
- obtain and maintain intellectual property protection for our technologies and products;
- obtain required government and other public and private approvals on a timely basis;

- attract and retain key personnel;
- commercialize effectively;
- obtain reimbursement for our products in approved indications;
- comply with applicable laws, regulations and regulatory requirements and restrictions with respect to the commercialization of our products, including with respect to any changed or increased regulatory restrictions; and
- enter into additional strategic partnerships to advance the development and commercialization of our product candidates.

Risks related to our intellectual property

If we are unable to obtain or protect intellectual property rights related to our technology and ADC product candidates, or if our intellectual property rights are inadequate, we may not be able to compete effectively.

Our success depends in large part on our ability to obtain and maintain protection with respect to our intellectual property and proprietary technology. We rely upon a combination of patents, trade secret protection and confidentiality agreements to protect the intellectual property related to our platforms and our product candidates, including UpRi and XMT-1592. The patent position of biopharmaceutical companies is generally uncertain because it involves complex legal and factual considerations and has, in recent years, been the subject of much litigation. As a result, the issuance, scope, validity, enforceability and commercial value of our patent rights is highly uncertain. The standards applied by the United States Patent and Trademark Office, or USPTO, and foreign patent offices in granting patents are not always applied uniformly or predictably. For example, there is no uniform worldwide policy regarding patentable subject matter or the scope of claims allowable in patents. In addition, changes in either the patent laws or interpretation of the patent laws in the United States and other countries may diminish the value of our patents or narrow the scope of our patent protection. The patent prosecution process is expensive, complex and time-consuming, and we may not be able to file, prosecute, maintain, enforce or license all necessary or desirable patents and patent applications at a reasonable cost or in a timely manner. It is also possible that we fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. There is no assurance that all potentially relevant prior art relating to our patents and patent applications has been found. We may be unaware of prior art that could be used to invalidate an issued patent or prevent our pending patent applications from issuing as patents.

The patent applications that we own or in-license may fail to result in issued patents, and even if they do issue as patents, such patents may not cover our platforms and product candidates in the United States or in other countries. The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, and our patents may be challenged in the courts or patent offices in the United States and abroad. Such challenges may result in loss of exclusivity or in patent claims being narrowed, invalidated or held unenforceable, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of our technology and product candidates. For example, even if patent applications we license or own do successfully issue as patents and even if such patents cover our platforms and product candidates, third parties may challenge their validity, enforceability or scope, which may result in such patents being narrowed or invalidated. Furthermore, even if they are unchallenged, our patents and patent applications may not provide adequate protection or exclusivity for our ADC platform or product candidates, prevent others from designing around our claims or otherwise provide us with a competitive advantage. Any of these outcomes could impair our ability to prevent competition from third parties, which may have an adverse impact on our business.

If patent applications we own or have in-licensed with respect to our platforms or our product candidates fail to issue as patents, if their breadth or strength of protection is threatened, or if they fail to provide meaningful exclusivity, it could dissuade companies from collaborating with us. We cannot offer any assurances about which, if any, patents will issue, the breadth of any such patents or whether any issued patents will be found invalid and unenforceable or will be threatened by third parties. Any successful challenge to these patents or any other patents owned by or licensed to us could deprive us of rights necessary for the successful development and commercialization of any product candidate. Since patent applications in the United States and most other countries are confidential for a period of time after filing, and some remain so until issued, we cannot be certain that we were the first to file any patent application related to a product candidate. Furthermore, if third parties have filed such patent applications, an interference proceeding in the United States can be initiated by the USPTO or a third-party to determine who was the first to invent any of the subject matter covered by the patent claims of our applications. In addition, patents have a limited lifespan. In the United States, the natural expiration of a patent is generally 20 years after it is filed. Various extensions may be available; however, the life of a patent and the protection it affords is limited. Given the amount of time required for the development, testing and regulatory review of new product candidates, our owned or in-licensed patents protecting such

candidates might expire before or shortly after such candidates are commercialized. If we encounter delays in obtaining regulatory approvals, the period of time during which we could market a drug under patent protection could be further reduced. Even if patents covering our product candidates are obtained, once the patent life has expired for a product, we may be open to competition from similar or generic products. The launch of a generic version of one of our products in particular would be likely to result in an immediate and substantial reduction in the demand for our product, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

On September 16, 2011, the Leahy-Smith America Invents Act, or the Leahy-Smith Act, was signed into law, which could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents. The Leahy-Smith Act includes a number of significant changes to U.S. patent law. These include provisions that affect the way patent applications are prosecuted, redefine prior art, may affect patent litigation and switch the U.S. patent system from a "first-to-invent" system to a "first-to-file" system. Under a first-to-file system, assuming the other requirements for patentability are met, the first inventor to file a patent application generally will be entitled to the patent on an invention regardless of whether another inventor had made the invention earlier. These provisions also allow third-party submission of prior art to the USPTO during patent prosecution and set forth additional procedures to attack the validity of a patent by the USPTO administered post grant proceedings. The USPTO developed additional regulations and procedures to govern administration of the Leahy-Smith Act, and many of the substantive changes to patent law associated with the Leahy-Smith Act, and, in particular, the first-to-file provisions, only became effective on March 16, 2013. Accordingly, it is not clear what, if any, impact the Leahy-Smith Act will have on the operation of our business. The Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Any loss of patent protection could have a material adverse impact on our business. We may be unable to prevent competitors from entering the market with a product that is similar to or the same as our product candidates.

Issued patents covering UpRi, XMT-1592, and any other current or future ADC product candidates could be found invalid or unenforceable if challenged in court or before the USPTO or comparable foreign authority.

If we or one of our licensing partners initiate legal proceedings against a third party to enforce a patent covering UpRi, XMT-1592, or any other current or future product candidates, the defendant could counterclaim that the patent covering our product candidate is invalid or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace, and there are numerous grounds upon which a third party can assert invalidity or unenforceability of a patent. Grounds for a validity challenge could be, among other things, an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness, lack of written description or non-enablement. Grounds for an unenforceability assertion could be, among other things, an allegation that someone connected with prosecution of the patent withheld relevant information from the USPTO, or made a misleading statement, during prosecution. Third parties may also raise similar claims before administrative bodies in the United States or abroad, even outside the context of litigation. Such mechanisms include re-examination, inter partes review, post-grant review, interference proceedings, derivation proceedings and equivalent proceedings in foreign jurisdictions (e.g., opposition proceedings). Such proceedings could result in revocation, cancellation or amendment to our patents in such a way that they no longer cover and protect our product candidates. The outcome following legal assertions of invalidity and unenforceability is unpredictable. With respect to the validity of our patents, for example, we cannot be certain that there is no invalidating prior art of which we, our licensors, our patent counsel and the patent examiner were unaware during prosecution. If a third party were to prevail on a legal assertion of invalidity or unenforceability, we would lose at least part, and perhaps all, of the patent protection on one or more of our product candidates. Any such loss of patent protection could have a material adverse impact on our business, financial condition, results of operations and prospects.

If we fail to comply with our obligations under any license, strategic partnership or other agreements, we may be required to pay damages and could lose intellectual property rights that are necessary for developing and protecting our ADC product candidates.

We rely, in part, on license, collaboration and other agreements. We may need to obtain additional licenses from others to advance our research or allow commercialization of our product candidates and it is possible that we may be unable to obtain additional licenses at a reasonable cost or on reasonable terms, if at all. The licensing or acquisition of third party intellectual property rights is a competitive area, and several more established companies may pursue strategies to license or acquire third party intellectual property rights that we may consider attractive. These established companies may have a competitive advantage over us due to their size, capital resources and greater clinical development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to use. We also may be

unable to license or acquire third-party intellectual property rights on terms that would allow us to make an appropriate return on our investment.

In addition, our existing licenses and collaboration agreements, including our license with Recepta Biopharma S.A., or Recepta, for intellectual property covering the NaPi2b antibody in UpRi and XMT-1592, and our license with Synaffix B.V., or Synaffix, for intellectual property covering components included in the Dolasynthen platform, impose, and any future licenses, collaborations or other agreements we enter into are likely to impose, various development, commercialization, funding, milestone, royalty, diligence, sublicensing, insurance, patent prosecution and enforcement or other obligations on us. If we breach any of these obligations, or use the intellectual property licensed to us in an unauthorized manner, we may be required to pay damages and the licensor may have the right to terminate the license, including, in the case of our agreement with Recepta, the license for the rights covering the NaPi2b antibody in UpRi and XMT-1592, and in the case of our agreement with Synaffix, the license for the rights covering components in the Dolasynthen platform. Any of the foregoing could result in us being unable to develop, manufacture and sell products that are covered by the licensed technology or enable a competitor to gain access to the licensed technology. Disputes may arise regarding intellectual property subject to a licensing, collaboration or other agreements, including:

- the scope of rights granted under the license agreement and other interpretation related issues;
- the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;
- the sublicensing of patent and other rights under our collaborative development relationships;
- our diligence obligations under the license agreement and what activities satisfy those diligence obligations;
- the inventorship and ownership of inventions and know how resulting from the joint creation or use of intellectual property by our licensors and us and our partners; and
- the priority of invention of patented technology.

In addition, the agreements under which we currently license intellectual property or technology to or from third parties are complex, and certain provisions in such agreements may be susceptible to multiple interpretations. The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant intellectual property or technology, or increase what we believe to be our financial or other obligations under the relevant agreement, either of which could have a material adverse effect on our business, financial condition, results of operations and prospects. Moreover, if disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on commercially acceptable terms, we may be unable to successfully develop and commercialize the affected product candidates.

In some circumstances, we may not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the patents, covering the technology that we license from third parties. For example, pursuant to our license agreement with Recepta, Ludwig Institute for Cancer Research Ltd., a co-owner of the intellectual property, retains control of such activities. Therefore, we cannot be certain that these patents and applications will be prosecuted, maintained and enforced in a manner consistent with the best interests of our business. If our licensors fail to obtain or maintain such intellectual property, or lose rights to such intellectual property, the rights we have licensed and our exclusivity may be reduced or eliminated and our right to develop and commercialize any of our products that are subject to such licensed rights could be adversely affected.

Moreover, our rights to our in-licensed patents and patent applications are dependent, in part, on inter-institutional or other operating agreements between the joint owners of such in-licensed patents and patent applications. If one or more of such joint owners breaches such inter-institutional or operating agreements, our rights to such in-licensed patents and patent applications may be adversely affected. In addition, while we cannot currently determine the amount of the royalty obligations we would be required to pay on sales of future products, if any, the amounts may be significant. The amount of our future royalty obligations will depend on the technology and intellectual property we use in products that we successfully develop and commercialize, if any. Therefore, even if we successfully develop and commercialize products, we may be unable to achieve or maintain profitability. Any of the foregoing could have a material adverse effect on our competitive position, business, financial conditions, results of operations and prospects.

If we are unable to successfully obtain rights to required third-party intellectual property rights or maintain the existing intellectual property rights we have, we may have to abandon development of the relevant program or product candidate and our business, financial condition, results of operations and prospects could suffer.

We may become involved in lawsuits to protect or enforce our intellectual property or to defend against intellectual property claims, which could be expensive, time consuming and unsuccessful.

Competitors and other third parties may infringe our patents or misappropriate or otherwise violate our owned and in-licensed intellectual property rights. To counter infringement or unauthorized use, litigation or other intellectual property proceedings may be necessary to enforce or defend our owned and in-licensed intellectual property rights, to protect our trade secrets or to determine the validity and scope of our own intellectual property rights or the proprietary rights of others. Such litigation or proceedings can be expensive and time consuming, and any such claims could provoke defendants to assert counterclaims against us, including claims alleging that we infringe their patents or other intellectual property rights. We may not have sufficient financial or other resources to adequately conduct such litigation or proceedings. Many of our current and potential competitors have the ability to dedicate substantially greater resources to litigate intellectual property rights than we can and have more mature and developed intellectual property portfolios. Accordingly, despite our efforts, we may not be able to prevent third parties from infringing upon or misappropriating our intellectual property. Even if resolved in our favor, litigation or other intellectual property proceedings could result in substantial costs and diversion of management attention and resources, which could harm our business and financial results.

In addition, in a litigation or other proceeding, a court or administrative judge may decide that a patent owned by or licensed to us is invalid or unenforceable, or a court may 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. An adverse result in any litigation or other proceeding could put one or more of our patents at risk of being invalidated, held unenforceable or interpreted narrowly. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation and other proceedings, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. During the course of any patent or other intellectual property litigation or other proceeding, there could be public announcements of the results of hearings, rulings on motions and other interim proceedings or developments and if securities analysts or investors regard these announcements as negative, the perceived value of our product candidates, programs or intellectual property could be diminished. Accordingly, the market price of our common stock may decline. Any of the foregoing could have a material adverse effect on our business, financial conditions, results of operations and prospects.

Third-party claims of intellectual property infringement or misappropriation may prevent or delay our development and commercialization efforts.

Our commercial success depends in part on our ability and the ability of our strategic partners to develop, manufacture, market and sell product candidates and use our proprietary technologies without infringing, misappropriating or otherwise violating the patents and proprietary rights of third parties. There is a substantial amount of litigation, both within and outside the United States, involving patent and other intellectual property rights in the biopharmaceutical industries, including patent infringement lawsuits, interferences, oppositions, reexamination, inter partes review, derivation and post grant review proceedings before the USPTO and corresponding foreign patent offices. Numerous U.S. and foreign issued patents and pending patent applications owned by third parties exist in the fields in which we are developing and may develop our product candidates. As the biopharmaceutical industries expand and more patents are issued, the risk increases that our product candidates may be subject to claims of infringement of the patent rights of third parties.

Third parties may assert that we, our customers, licensees or parties indemnified by us are employing their proprietary technology without authorization or have infringed upon, misappropriated or otherwise violated their intellectual property or other rights, regardless of their merit. For example, we may be subject to claims that we are infringing the patent, trademark or copyright rights of third parties, or that our employees have misappropriated or divulged their former employers' trade secrets or confidential information. There may be third-party patents or patent applications with claims to materials, formulations, methods of manufacture or methods for treatment related to the use or manufacture of our product candidates, that we failed to identify. For example, applications filed before November 29, 2000 and certain applications filed after that date that will not be filed outside the United States remain confidential until issued as patents. Except for certain exceptions, including the preceding exceptions, patent applications in the United States and elsewhere are generally published only after a waiting period of approximately 18 months after the earliest filing, and sometimes not at all. Therefore, patent applications covering our platforms or our product candidates could have been filed by others without our knowledge. Additionally, pending patent applications which have been published can, subject to certain limitations, be later amended in a manner that could cover our platforms, our product candidates or the use or manufacture of our product candidates.

Even if we believe a third party's claims against us are without merit, a court of competent jurisdiction could hold that such third party's patent is valid, enforceable and cover aspects of our product candidates, including the materials, formulations, methods of manufacture, methods of analysis, or methods for treatment, in which case, such third party would be able to block our ability to develop and commercialize the applicable technology or product candidate until such patent expired or unless we obtain a license and we may be required to pay such third-party monetary damages, which could be substantial. Such licenses may not be available on acceptable terms, if at all. Even if we were able to obtain a license, the rights may be nonexclusive, which could result in our competitors gaining access to the same intellectual property and it could require us to make substantial licensing and royalty payments. Ultimately, we could be prevented from commercializing a product, or be forced to cease some aspect of our business operations, if, as a result of actual or threatened patent infringement claims, we are unable to enter into licenses on acceptable terms.

Parties making claims against us may also obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize our technologies or one or more of our product candidates. Defending against claims of patent infringement, misappropriation of trade secrets or other violations of intellectual property could be costly and time consuming, regardless of the outcome. Thus, even if we were to ultimately prevail, or to settle at an early stage, such litigation could burden us with substantial unanticipated costs. In addition, litigation or threatened litigation could result in significant demands on the time and attention of our management team, distracting them from the pursuit of other company business. In the event of a successful claim of infringement against us, in addition to potential injunctive relief, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, pay royalties, redesign our infringing products or obtain one or more licenses from third parties, which may be impossible or require substantial time and monetary expenditure.

We may face a claim of misappropriation if a third party believes that we inappropriately obtained and used trade secrets of such third party. If we are found to have misappropriated a third party's trade secrets, we may be prevented from further using such trade secrets, limiting our ability to develop our product candidates, we may be required to obtain a license to such trade secrets which may not be available on commercially reasonable terms or at all and may be non-exclusive, and we may be required to pay damages, which could be substantial. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

We may not be able to protect our intellectual property and proprietary rights throughout the world.

Filing, prosecuting and defending patents on product candidates in all countries throughout the world where we expect there to be significant markets for our products could be prohibitively expensive, and the laws of foreign countries may not protect our rights to the same extent as the laws of the United States. In addition, our intellectual property license agreements may not always include worldwide rights. For example, certain U.S. and foreign issued patents and patent applications are licensed to us by Recepta on a worldwide basis, except that Recepta retains exclusive rights in such patents and patent applications in Brazil. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories where we have patent protection or licenses but enforcement is not as strong as that in the United States. These products may compete with our products, and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Additionally, the laws of some foreign countries do not protect intellectual property rights to the same extent as the laws of the United States, and many companies have encountered significant problems in protecting and defending such rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to biotechnology, which could make it difficult for us to stop the infringement of our licensed and owned patents or marketing of competing products in violation of our intellectual property and proprietary rights generally. Proceedings to enforce our intellectual property and proprietary rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly, could put our patent applications at risk of not issuing as patents, and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate, and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property and proprietary rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

Many countries have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In addition, many countries limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of such patent. If we or any

of our licensors is forced to grant a license to third parties with respect to any patents relevant to our business, our competitive position may be impaired, and our business, financial condition, results of operations and prospects may be adversely affected.

Confidentiality agreements with employees and third parties may not prevent unauthorized disclosure of trade secrets and other proprietary information.

In addition to the protection afforded by patents, we rely on trade secret protection and confidentiality agreements to protect proprietary know-how that is not patentable or that we elect not to patent, processes for which patents are difficult to enforce and any other elements of our platform technology and discovery and development processes that involve proprietary know-how, information or technology that is not covered by patents. However, trade secrets can be difficult to protect. We seek to protect our proprietary technology and processes, in part, by entering into confidentiality agreements with our employees, consultants and outside scientific advisors, contractors and partners. We cannot guarantee that we have entered into such agreement with each party that may have or have had access to our trade secrets or proprietary technology and processes. Additionally, our confidentiality agreements and other contractual protections may not be adequate to protect our intellectual property from unauthorized disclosure, third-party infringement or misappropriation. We may not have adequate remedies in the case of a breach of any such agreements, and our trade secrets and other proprietary information could be disclosed to our competitors or others may independently develop substantially equivalent or superior proprietary information and techniques or otherwise gain access to our trade secrets or disclose such technologies.

Enforcing a claim that a third party illegally obtained and is using any of our trade secrets is expensive and time consuming, and the outcome is unpredictable. In addition, some courts outside and within the United States sometimes are less willing to protect trade secrets. Misappropriation or unauthorized disclosure of our trade secrets could impair our competitive position and may have a material adverse effect on our business.

We may be subject to claims by third parties asserting that our licensors, employees, consultants, advisors or we have misappropriated their intellectual property, or claiming ownership of what we regard as our own intellectual property.

Many of our and our licensors' employees, including our senior management, consultants or advisors are currently, or previously were, employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Some of these employees, including members of our senior management, executed proprietary rights, non-disclosure and non-competition agreements, or similar agreements, in connection with such previous employment. Although we try to ensure that our employees, consultants and advisors do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or these individuals have used or disclosed intellectual property, including trade secrets or other proprietary information, of any such individual's current or former employer. Litigation may be necessary to defend against such claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel or sustain damages. Such intellectual property rights could be awarded to a third party, and we could be required to obtain a license from such third party to commercialize our technology or products. Such a license may not be available on commercially reasonable terms or at all. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management. Any of the foregoing may have a material adverse effect on our business, financial condition, results of operations and prospects.

In addition, while it is our policy to require our employees and contractors who may be involved in the conception or development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who, in fact, conceives or develops intellectual property that we regard as our own. The assignment of intellectual property rights may not be self-executing or the assignment agreements may be breached, and we may be forced to bring claims against third parties, or defend claims that they may bring against us, to determine the ownership of what we regard as our intellectual property.

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

Depending upon the timing, duration and specifics of any FDA marketing approval of any product candidates we may develop, one or more of our owned or in-licensed U.S. patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, or Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent term extension of up to five years as compensation for the patent term lost during the FDA regulatory review process. A patent term extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval, only one patent may be extended and only those claims covering the approved drug, a method for using it or a method for manufacturing it may be extended. However, we may not be granted an extension 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 less than we request, 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.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment, and other requirements imposed by government patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

Periodic maintenance fees, renewal fees, annuity fees and various other government fees on patents and patent applications will be due to be paid to the USPTO and various government patent agencies outside of the United States over the lifetime of our owned or licensed patents and applications. In certain circumstances, we rely on our licensing partners to pay these fees due to U.S. and non-U.S. patent agencies. The USPTO and various non-U.S. government agencies require compliance with several procedural, documentary, fee payment and other similar provisions during the patent application process. We are also dependent on our licensors to take the necessary action to comply with these requirements with respect to our licensed intellectual property. In some cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules. There are situations, however, in which non-compliance can result in abandonment or lapse of the patent or patent application, resulting in a partial or complete loss of patent rights in the relevant jurisdiction. In such an event, potential competitors might be able to enter the market with similar or identical products or technology, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Intellectual property rights do not necessarily address all potential threats.

The degree of future protection afforded by our intellectual property rights is uncertain because intellectual property rights have limitations and may not adequately protect our business or permit us to maintain our competitive advantage. For example:

- others may be able to make ADC products that are similar to any product candidates we may develop or utilize similar ADC-related technology but that are not covered by the claims of the patents that we license or may own in the future;
- we, or our license partners or current or future strategic partners, might not have been the first to make the inventions covered by the issued patent or pending patent application that we license or may own in the future;
- we, or our license partners or current or future strategic partners, might not have been the first to file patent applications covering certain of our or their inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our owned or licensed intellectual property rights;
- it is possible that our pending licensed patent applications or those that we may own in the future will not lead to issued patents;
- issued patents that we hold rights to may be held invalid or unenforceable, including as a result of legal challenges by our competitors;
- our competitors might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;

- we may not develop additional proprietary technologies that are patentable;
- the patents of others may harm our business; and
- we may choose not to file a patent in order to maintain certain trade secrets or know how, and a third party may subsequently file a patent covering such intellectual property.

Should any of these events occur, they could have a material adverse effect on our business, financial condition, results of operations and prospects.

Risks related to regulatory approval and other legal compliance matters

Even if we complete the necessary preclinical studies and clinical trials, the regulatory approval process is expensive, time consuming and uncertain and may prevent us from obtaining approvals for the commercialization of some or all of our product candidates. As a result, we cannot predict when or if, and in which territories, we will obtain marketing approval to commercialize a product candidate.

The research, testing, manufacturing, labeling, approval, selling, marketing, promotion and distribution of products are subject to extensive regulation by the FDA and comparable foreign regulatory authorities. We are not permitted to market our product candidates in the United States or in other countries until we receive approval of a biologics licensing application, or BLA, from the FDA or marketing approval from applicable regulatory authorities outside the United States. Our product candidates are in various stages of development and are subject to the risks of failure inherent in development. We have not submitted an application for or received marketing approval for any of our product candidates in the United States or in any other jurisdiction. We have no experience as a company in filing and supporting the applications necessary to gain marketing approvals and expect to rely on third-party CROs to assist us in this process.

The process of obtaining marketing approvals, both in the United States and abroad, is lengthy, expensive and uncertain. It may take many years, if approval is obtained at all, and can vary substantially based upon a variety of factors, including the type, complexity and novelty of the product candidates involved. Securing marketing approval requires the submission of extensive preclinical and clinical data and supporting information, including manufacturing information, to regulatory authorities for each therapeutic indication to establish the product candidate's safety and efficacy. The FDA or other regulatory authorities may determine that our product candidates are not safe and effective, only moderately effective or have undesirable or unintended side effects, toxicities or other characteristics that preclude our obtaining marketing approval or prevent or limit commercial use.

In addition, changes in marketing approval policies during the development period, changes in or the enactment or promulgation of additional statutes, regulations or guidance or changes in regulatory review for each submitted product application, may cause delays in the approval or rejection of an application. Regulatory authorities have substantial discretion in the approval process and varying interpretations of the data obtained from preclinical and clinical testing could delay, limit or prevent marketing approval of a product candidate. Any marketing approval we ultimately obtain may be limited or subject to restrictions or post-approval commitments that render the approved product not commercially viable.

Failure to obtain marketing approval in foreign jurisdictions would prevent our product candidates from being marketed abroad. Any approval we may be granted for our product candidates in the United States would not assure approval of our product candidates in foreign jurisdictions and any of our product candidates that may be approved for marketing in a foreign jurisdiction will be subject to risks associated with foreign operations.

We intend to market our current product candidates, including UpRi, our lead product candidate, and XMT-1592, each, if approved, in international markets either directly or through partnerships. In order to market and sell our products in the European Union and other foreign jurisdictions, we must obtain separate marketing approvals and comply with numerous and varying regulatory requirements. The approval procedure varies among countries and can involve additional testing. The time required to obtain approval may differ substantially from that required to obtain FDA approval. The marketing approval process outside the United States generally includes all of the risks associated with obtaining FDA approval. We may not obtain approvals from regulatory authorities outside the United States on a timely basis, if at all. Approval by the FDA does not ensure approval by regulatory authorities in other countries or jurisdictions, and approval by one regulatory authority outside the United States does not ensure approval by regulatory authorities in other countries or jurisdictions or by the FDA. We may file for marketing approvals but not receive necessary approvals to commercialize our products in any market.

In many countries outside the United States, a product candidate must also be approved for reimbursement before it can be sold in that country. In some cases, the price that we intend to charge for our products, if approved, is also subject to approval. Obtaining non-U.S. regulatory approvals and compliance with non-U.S. regulatory requirements could result in significant delays, difficulties and costs for us and could delay or prevent the introduction of our product candidates in certain countries. In addition, if we fail to obtain the non-U.S. approvals required to market our product candidates outside the United States or if we fail to comply with applicable non-U.S. regulatory requirements, our target markets will be reduced and our ability to realize the full market potential of our product candidates will be harmed and our business, financial condition, results of operations and prospects may be adversely affected.

Additionally, we could face heightened risks with respect to seeking marketing approval in the United Kingdom as a result of the withdrawal of the United Kingdom from the European Union, commonly referred to as Brexit. The United Kingdom is no longer part of the European Single Market and European Union Customs Union. As of January 1, 2021, the Medicines and Healthcare products Regulatory Agency, or the MHRA, became responsible for supervising medicines and medical devices in Great Britain, comprising England, Scotland and Wales under domestic law, whereas Northern Ireland will continue to be subject to European Union rules under the Northern Ireland Protocol. Any delay in obtaining, or an inability to obtain, any marketing approvals, as a result of Brexit or otherwise, may force us to restrict or delay efforts to seek regulatory approval in the United Kingdom for our product candidates, which could significantly and materially harm our business.

We expect that we will be subject to additional risks in commercializing any of our product candidates that receive marketing approval outside the United States, including tariffs, trade barriers and regulatory requirements; economic weakness, including inflation, or political instability in particular foreign economies and markets; compliance with tax, employment, immigration and labor laws for employees living or traveling abroad; foreign currency fluctuations, which could result in increased operating expenses and reduced revenue, and other obligations incident to doing business in another country; and workforce uncertainty in countries where labor unrest is more common than in the United States.

Any product candidate for which we obtain marketing approval is subject to ongoing regulation and could be subject to restrictions or withdrawal from the market, and we may be subject to substantial penalties if we fail to comply with regulatory requirements, when and if any of our product candidates are approved.

Any product candidate for which we obtain marketing approval will be subject to continual requirements of and review by the FDA and other regulatory authorities. These requirements include submissions of safety and other post-marketing information and reports, registration and listing requirements, cGMP requirements relating to quality control and manufacturing, quality assurance and corresponding maintenance of records and documents, and requirements regarding the distribution of samples to physicians and recordkeeping. In addition, the approval may be subject to limitations on the indicated uses for which the product may be marketed or to the conditions of approval, or contain requirements for costly post-marketing testing and surveillance to monitor the safety or efficacy of the medicine, including the requirement to implement a risk evaluation and mitigation strategy. Accordingly, if we receive marketing approval for one or more of our product candidates, we will continue to expend time, money and effort in all areas of regulatory compliance, including manufacturing, production, product surveillance and quality control. If we fail to comply with these requirements, we could have the marketing approvals for our products withdrawn by regulatory authorities and our ability to market any products could be limited, which could adversely affect our ability to achieve or sustain profitability.

We must also comply with requirements concerning advertising and promotion for any of our product candidates for which we obtain marketing approval. Promotional communications with respect to prescription products are subject to a variety of legal and regulatory restrictions and must be consistent with the information in the product's approved labeling. Thus, we will not be able to promote any products we develop for indications or uses for which they are not approved. The FDA and other agencies, including the Department of Justice, or the DOJ, closely regulate and monitor the post-approval marketing and promotion of products to ensure that they are marketed and distributed only for the approved indications and in accordance with the provisions of the approved labeling. In September 2021, the FDA published final regulations which describe the types of evidence that the agency will consider in determining the intended use of a drug or biologic. Violations of the Federal Food, Drug, and Cosmetic Act and other statutes, including the False Claims Act, relating to the promotion and advertising of prescription products may lead to investigations and enforcement actions alleging violations of federal and state health care fraud and abuse laws, as well as state consumer protection laws.

Failure to comply with regulatory requirements, may yield various results, including:

- restrictions on such products, manufacturers or manufacturing processes;

- restrictions on the labeling or marketing of a product;
- restrictions on distribution or use of a product;
- requirements to conduct post-marketing studies or clinical trials;
- warning letters or untitled letters;
- withdrawal of the products from the market;
- refusal to approve pending applications or supplements to approved applications that we submit;
- recall of products;
- damage to relationships with collaborators;
- unfavorable press coverage and damage to our reputation;
- fines, restitution or disgorgement of profits or revenues;
- suspension or withdrawal of marketing approvals;
- refusal to permit the import or export of our products;
- product seizure;
- injunctions or the imposition of civil or criminal penalties; and
- litigation involving patients using our products.

Similar restrictions apply to the approval of our products in the European Union. The holder of a marketing authorization is required to comply with a range of requirements applicable to the manufacturing, marketing, promotion and sale of medicinal products. These include compliance with the European Union's stringent pharmacovigilance or safety reporting rules, which can impose post-authorization studies and additional monitoring obligations; the manufacturing of authorized medicinal products, for which a separate manufacturer's license is mandatory; and the marketing and promotion of authorized drugs, which are strictly regulated in the European Union and are also subject to EU Member State laws.

Accordingly, in connection with our currently approved products and assuming we, or our collaborators, receive marketing approval for one or more of our product candidates, we, and our collaborators, and our and their contract manufacturers will continue to expend time, money and effort in all areas of regulatory compliance, including manufacturing, production, product surveillance and quality control. If we, and our collaborators, are not able to comply with post-approval regulatory requirements, our or our collaborators' ability to market any future products could be limited, which could adversely affect our ability to achieve or sustain profitability. Further, the cost of compliance with post-approval regulations may have a negative effect on our operating results and financial condition.

We may seek certain designations for our product candidates, including but not limited to Breakthrough Therapy, Fast Track and Priority Review designations in the United States, and PRIME Designation in the European Union, but we might not receive such designations, and even if we do, such designations may not lead to a faster development or regulatory review or approval process.

We may seek certain designations for one or more of our product candidates that could expedite review and approval by the FDA. A Breakthrough Therapy product is defined as a product that is intended, alone or in combination with one or more other products, to treat a serious condition, and preliminary clinical evidence indicates that the product may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. For products that have been designated as Breakthrough Therapies, interaction and communication between the FDA and the sponsor of the trial can help to identify the most efficient path for clinical development while minimizing the number of patients placed in ineffective control regimens.

The FDA may also designate a product for Fast Track review if it is intended, whether alone or in combination with one or more other products, for the treatment of a serious or life threatening disease or condition, and it demonstrates the potential to address unmet medical needs for such a disease or condition. For Fast Track products, sponsors may have greater interactions with the FDA and the FDA may initiate review of sections of a Fast Track product's application before the application is complete. This rolling review may be available if the FDA determines, after preliminary evaluation of clinical data submitted by the sponsor, that a Fast Track product may be effective. In August 2020, the FDA granted Fast Track Designation for UpRi for the treatment of patients with platinum-resistant high-grade serous ovarian cancer who have received up to three prior lines of systemic therapy or patients who have received four prior lines of systemic therapy regardless of platinum status.

We may also seek a priority review designation for one or more of our product candidates. If the FDA determines that a product candidate offers major advances in treatment or provides a treatment where no adequate therapy exists, the FDA may designate the product candidate for priority review. A priority review designation means that the goal for the FDA to review an application is six months, rather than the standard review period of ten months.

These designations are within the discretion of the FDA. Accordingly, even if we believe that one of our product candidates meets the criteria for these designations, the FDA may disagree and instead determine not to make such designation. Further, even if we receive a designation, the receipt of such designation for a product candidate may not result in a faster development or regulatory review or approval process compared to products considered for approval under conventional FDA procedures and does not assure ultimate approval by the FDA. In addition, even if one or more of our product candidates qualifies for these designations, the FDA may later decide that the product candidates no longer meet the conditions for qualification or decide that the time period for FDA review or approval will not be shortened.

In the European Union, we may seek PRIME designation for our product candidates in the future. PRIME is a voluntary program aimed at enhancing the EMA's role to reinforce scientific and regulatory support in order to optimize development and enable accelerated assessment of new medicines that are of major public health interest with the potential to address unmet medical needs. The program focuses on medicines that target conditions for which there exists no satisfactory method of treatment in the European Union or even if such a method exists, it may offer a major therapeutic advantage over existing treatments. PRIME is limited to medicines under development and not authorized in the European Union and the applicant intends to apply for an initial marketing authorization application through the centralized procedure. To be accepted for PRIME, a product candidate must meet the eligibility criteria in respect of its major public health interest and therapeutic innovation based on information that is capable of substantiating the claims.

The benefits of a PRIME designation include the appointment of a CHMP rapporteur to provide continued support and help to build knowledge ahead of a marketing authorization application, early dialogue and scientific advice at key development milestones, and the potential to qualify products for accelerated review, meaning reduction in the review time for an opinion on approvability to be issued earlier in the application process. PRIME enables an applicant to request parallel EMA scientific advice and health technology assessment advice to facilitate timely market access. Even if we receive PRIME designation for any of our product candidates, the designation may not result in a materially faster development process, review or approval compared to conventional EMA procedures. Further, obtaining PRIME designation does not assure or increase the likelihood of EMA's grant of a marketing authorization.

Inadequate funding for the FDA, the Securities and Exchange Commission and other government agencies, including from government shut downs, or other disruptions to these agencies' operations, could hinder their ability to hire and retain key leadership and other personnel, prevent new products and services from being developed or commercialized in a timely manner or otherwise prevent those agencies from performing normal business functions on which the operation of our business may rely, which could negatively impact our business.

The ability of the FDA to review and approve new products can be affected by a variety of factors, including government budget and funding levels, ability to hire and retain key personnel and accept the payment of user fees, and statutory, regulatory and policy changes. Average review times at the agency have fluctuated in recent years as a result. Disruptions at the FDA and other agencies may also slow the time necessary for new product candidates to be reviewed and/or approved by necessary government agencies, which would adversely affect our business. In addition, government funding of the Securities and Exchange Commission, or SEC, and other government agencies on which our operations may rely, including those that fund research and development activities, is subject to the political process, which is inherently fluid and unpredictable.

Disruptions at the FDA and other agencies may also slow the time necessary for new product candidates to be reviewed and/or approved by necessary government agencies, which would adversely affect our business. For example, over the last several

years the U.S. government has shut down several times and certain regulatory agencies, such as the FDA and the SEC, have had to furlough critical FDA, SEC and other government employees and stop critical activities. If a prolonged government shutdown occurs, it could significantly impact the ability of the FDA to timely review and process our regulatory submissions, which could have a material adverse effect on our business. Further, future government shutdowns could impact our ability to access the public markets and obtain necessary capital in order to properly capitalize and continue our operations.

Separately, in response to the COVID-19 pandemic, a number of companies announced receipt of complete response letters due to the FDA's inability to complete required inspections for their applications. As of May 26, 2021, the FDA noted it was continuing to ensure timely reviews of applications for medical products during the ongoing COVID-19 pandemic in line with its user fee performance goals and conducting mission critical domestic and foreign inspections to ensure compliance of manufacturing facilities with FDA quality standards. However, the FDA may not be able to continue its current pace and review timelines could be extended, including where a pre-approval inspection or an inspection of clinical sites is required and due to the ongoing COVID-19 pandemic and travel restrictions, the FDA is unable to complete such required inspections during the review period. Regulatory authorities outside the United States may adopt similar restrictions or other policy measures in response to the COVID-19 pandemic and may experience delays in their regulatory activities. If a prolonged government shutdown or other disruption occurs, it could significantly impact the ability of the FDA to timely review and process our regulatory submissions, which could have a material adverse effect on our business. Future shutdowns or other disruptions could also affect other government agencies such as the SEC, which may also impact our business by delaying review of our public filings, to the extent such review is necessary, and our ability to access the public markets.

We are currently conducting clinical trials for UpRi, and may conduct future clinical trials for our other product candidates at sites outside of the United States, and the FDA may not accept data from trials conducted in such locations or the complexity of regulatory burdens may otherwise adversely impact us.

We are currently conducting and we plan to continue to conduct clinical trials outside of the United States. Although the FDA may accept data from clinical trials conducted outside the United States, acceptance of these data is subject to conditions imposed by the FDA. For example, the clinical trial must be well designed and conducted and be performed by qualified investigators in accordance with GCPs. If the foreign data is the sole basis for a marketing application, then the data must be applicable to the U.S. population and U.S. medical practice in ways that the FDA deems clinically meaningful and the FDA must be able to validate the data through an on-site inspection, if necessary. In addition, while these clinical trials are subject to the applicable local laws, FDA acceptance of the data will depend on its determination that the trials also complied with all applicable U.S. laws and regulations. If the FDA does not accept the data from any clinical trial that we conduct outside the United States, it would likely result in the need for additional clinical trials, which would be costly and time-consuming and could delay or permanently halt our development of the applicable product candidates.

Our ability to successfully initiate, enroll and complete a clinical trial in any country outside of the United States is subject to numerous additional risks unique to conducting business in jurisdictions outside the United States, including:

- difficulty in establishing or managing relationships with qualified CROs, physicians and clinical trial sites;
- different local standards for the conduct of clinical trials;
- difficulty in complying with various and complex import laws and regulations when shipping drug to certain countries;
- the potential burden of complying with a variety of laws, medical standards and regulatory requirements, including the regulation of pharmaceutical and biotechnology products and treatments;
- lack of consistency in standard of care from country to country;
- diminished protection of intellectual property in some countries;
- foreign exchange fluctuations;
- cultural differences in medical practice and clinical research; and
- changes in country or regional regulatory requirements.

Furthermore, the COVID-19 pandemic may also have an impact on our ability to successfully conduct trials outside of the United States. For example, we are conducting UPLIFT in countries where clinical trial site staff have been diverted to care for COVID-19 patients and where regulatory authorities are short staffed due to the COVID-19 pandemic. If we have difficulty conducting our clinical trials in jurisdictions outside the United States as planned, we may need to delay, limit or terminate ongoing or planned clinical trials, any of which could have a material adverse effect on our business**.**

Accelerated approval by the FDA, even if granted for UpRi or any other current or future product candidates, may not lead to a faster development or regulatory review or approval process and it does not increase the likelihood that our product candidates will receive marketing approval.

We may seek approval of UpRi and any of our other current and future product candidates using the FDA's accelerated approval pathway. A product may be eligible for accelerated approval if it treats a serious or life-threatening condition, generally provides a meaningful advantage over available therapies, and demonstrates an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit. The FDA or other applicable regulatory agency makes the determination regarding whether a surrogate endpoint is reasonably likely to predict long-term clinical benefit.

Prior to seeking such accelerated approval, we will seek feedback from the FDA and otherwise evaluate our ability to seek and receive such accelerated approval. As a condition of approval, the FDA requires that a sponsor of a product receiving accelerated approval perform an adequate and well-controlled post-marketing confirmatory clinical trial or trials. These confirmatory trials must be completed with due diligence and we may be required to evaluate different or additional endpoints in these post-marketing confirmatory trials. These confirmatory trials may require enrollment of more patients than we currently anticipate and will result in additional costs, which may be greater than the estimated costs we currently anticipate. In addition, the FDA currently requires as a condition for accelerated approval preapproval of promotional materials, which could adversely impact the timing of the commercial launch of the product.

There can be no assurance that the FDA will agree with any proposed surrogate endpoints or that we will decide to pursue or submit an BLA for accelerated approval or any other form of expedited development, review or approval. Similarly, there can be no assurance that, after feedback from FDA, we will continue to pursue or apply for accelerated approval or any other form of expedited development, review or approval, even if we initially decide to do so. Furthermore, if we decide to submit an application for accelerated approval or under another expedited regulatory designation, there can be no assurance that such submission or application will be accepted or that any expedited review or approval will be granted on a timely basis, or at all.

The FDA may withdraw approval of a product candidate approved under the accelerated approval pathway if, for example, the trial required to verify the predicted clinical benefit of our product candidate fails to verify such benefit or does not demonstrate sufficient clinical benefit to justify the risks associated with the drug. The FDA may also withdraw approval if other evidence demonstrates that our product candidate is not shown to be safe or effective under the conditions of use, we fail to conduct any required post approval trial of our product candidate with due diligence or we disseminate false or misleading promotional materials relating to our product candidate. A failure to obtain accelerated approval or any other form of expedited development, review or approval for our product candidates, or withdrawal of a product candidate, would result in a longer time period for commercialization of such product candidate, could increase the cost of development of such product candidate and could harm our competitive position in the marketplace.

Even if we do receive accelerated approval, we may not experience a faster development or regulatory review or approval process, and receiving accelerated approval does not provide assurance of ultimate full FDA approval.

If we or our third-party collaborators are unable to successfully develop and commercialize any required companion diagnostics for our product candidates or engage a third party to do so, or we or they experience significant delays in doing so, we may not realize the full potential of our product candidates.

If a companion diagnostic is required for the label for UpRi, our lead product candidate, XMT-1592, or any of our other current or future product candidates, therefore conditioning our ability to market such product candidates on the commercial availability of an approved companion diagnostic, we may seek approval for our validated assay as a companion diagnostic or we may contract with third parties to create and obtain approval for a companion diagnostic. To be successful in developing and commercializing such a companion diagnostic, we need to address a number of scientific, technical and logistical challenges. We have little experience in the development and commercialization of companion diagnostics and may not be successful in developing and commercializing appropriate companion diagnostics to pair with UpRi, XMT-1592, or any of our other current or future product candidates. Companion diagnostics are subject to regulation by the FDA and equivalent foreign regulatory authorities as medical devices and require separate regulatory approval prior to commercialization. Given our limited

experience in developing diagnostics, we may rely in part or in whole on third parties for their design, manufacture and commercialization. We, our collaborators or such third parties may encounter difficulties in developing and obtaining approval for the companion diagnostics, including issues relating to selectivity/specificity, analytical validation, reproducibility or clinical validation. Any delay or failure by us, our collaborators or such third parties to develop or obtain regulatory approval of the companion diagnostics could delay or prevent approval of our product candidates. If we, or any third parties that we may contract with to assist us, are unable to successfully develop and commercialize companion diagnostics for our product candidates, or experience delays in doing so:

- the development of UpRi, XMT-1592, and our other current or future product candidates, may be adversely affected if we are unable to appropriately select patients for enrollment in our clinical trials;
- our product candidates may not receive marketing approval if safe and effective use of a product candidate depends on the availability of an companion diagnostic and/or complementary diagnostics and such diagnostic is not commercially available or otherwise approved or cleared by the appropriate regulatory authority; and
- we may not realize the full commercial potential of any product candidates that receive marketing approval if, among other reasons, we are unable to appropriately select patients who are likely to benefit from therapy with our products, if approved.

If any of these events were to occur, our business would be harmed, possibly materially.

In addition, third-party collaborators may encounter production difficulties that could constrain the supply of the companion diagnostics, and both they and we may have difficulties gaining acceptance of the use of the companion diagnostics in the clinical community. If such companion diagnostics fail to gain market acceptance, it would have an adverse effect on our ability to derive revenues from sales of our product candidates, if approved. In addition, any diagnostic company with whom we contract may decide to discontinue selling or manufacturing the companion diagnostic that we anticipate using in connection with development and commercialization of our product candidates or our relationship with such diagnostic company may otherwise terminate. We may not be able to enter into arrangements with another diagnostic company to obtain supplies of an alternative diagnostic test for use in connection with the development and commercialization of our product candidates or do so on commercially reasonable terms, which could adversely affect and/or delay the development or commercialization of our product candidates.

Our activities, including our interactions with healthcare providers, third party payors, patients and government officials, are, and will continue to be, subject to extensive regulation involving health care, anti-corruption, data privacy and security and consumer protection laws. Failure to comply with applicable laws could result in substantial penalties, contractual damages, reputational harm, diminished revenues and curtailment or restructuring of our operations.

Our activities may now or in the future be directly or indirectly subject to various federal and state laws related to health care, anti-corruption, data privacy and security consumer protection. If we obtain FDA approval for any of our product candidates and begin commercializing those products in the United States, our potential exposure under such laws will increase significantly, and our costs associated with compliance with such laws are also likely to increase. These laws include, but are not limited to:

- federal false claims, false statements and civil monetary penalties laws prohibiting, among other things, any person from knowingly presenting, or causing to be presented, a false claim for payment of government funds or knowingly making, or causing to be made, a false statement to get a false claim paid;
- the federal anti-kickback law, which prohibits, among other things, persons from offering, soliciting, receiving or providing any remuneration, directly or indirectly, to induce, either the referral of an individual for, or the purchasing or ordering of a good or service, for which payment may be made under federal health care programs such as the Medicare and Medicaid;
- the federal anti-kickback prohibition known as Eliminating Kickbacks in Recovery Act, enacted in 2018, which prohibits certain payments related to referrals of patients to certain providers (recovery homes, clinical treatment facilities and laboratories) and applies to services reimbursed by private health plans as well as government health care programs;

- the federal law known as Health Insurance Portability and Accountability Act of 1996, or HIPAA, which, in addition to privacy protections to healthcare providers and other entities, prohibits executing a scheme to defraud any healthcare benefit program (which may include private health plans) or making false statements relating to healthcare matters;

- the Food, Drug, and Cosmetic Act, which among other things, strictly regulates drug marketing, prohibits manufacturers from marketing such products for off-label use and regulates the distribution of samples;

- federal laws that require pharmaceutical manufacturers to report certain calculated product prices to the government or provide certain discounts or rebates to government authorities or private entities, often as a condition of reimbursement under government healthcare programs;

- the so-called "federal sunshine" law, which requires pharmaceutical and medical device companies to monitor and report certain financial interactions with teaching hospitals, physicians and certain non-physician practitioners to the federal government for re-disclosure to the public;

- the privacy, security and breach provisions of HIPAA, which impose obligations on certain "covered entities" (healthcare providers, health plans and healthcare clearinghouses) and certain of their "business associate" contractors with respect to safeguarding the privacy, security and transmission of individually identifiable health information;

- federal and state laws and regulations, including state security breach notification laws, state health information privacy laws, and federal and state consumer protection laws, govern the collection, use, disclosure and protection of health-related and other personal information.

- federal consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm consumers;

- the Foreign Corrupt Practices Act, or FCPA, a United States law which regulates certain financial relationships with foreign government officials (which could include, for example, certain medical professionals); and

- state law analogues of each of the above federal laws, such as anti-kickback and false claims laws which may apply to items or services reimbursed by any third-party payor, including private health plans, state privacy laws, state consumer protection laws, and state laws regulating interactions between pharmaceutical manufacturers and healthcare providers, requiring disclosure of such financial interactions or mandating adoption of certain compliance standards, many of which differ from each other in significant ways and often are not preempted by federal laws, thus complicating compliance efforts.

In addition, the regulatory approval and commercialization of any of our product candidates outside the United States will also likely subject us to foreign equivalents of the health care laws mentioned above, among other foreign laws.

Efforts to ensure that our business arrangements will comply with applicable health care laws may involve substantial costs. It is possible that governmental and enforcement authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law interpreting applicable fraud and abuse or other health care laws and regulations. If our operations are found to be in violation of any of the laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including, without limitation, civil, criminal and administrative penalties, damages, monetary fines, disgorgement, possible exclusion from participation in Medicare, Medicaid and other federal health care programs, contractual damages, reputational harm, diminished profits and future earnings and curtailment or restructuring of our operations.

Current and future legislation may increase the difficulty and cost for us to obtain reimbursement for our product candidates.

In the United States and some foreign jurisdictions, there have been and continue to be a number of legislative and regulatory changes and proposed changes regarding the healthcare system that could, among other things, prevent or delay marketing approval of our product candidates, restrict or regulate post-approval activities and affect our ability to profitably sell any products for which we obtain marketing approval. We expect that current laws, as well as other healthcare reform measures that may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price

that we may receive for any approved products. If reimbursement of our products is unavailable or limited in scope, our business could be materially harmed.

In March 2010, President Obama signed into law the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act, collectively the ACA. In addition, other legislative changes have been proposed and adopted since the ACA was enacted. In August 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. These changes included aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, which went into effect in April 2013 and will remain in effect through 2031 under the Coronavirus Aid, Relief, and Economic Security Act, or the CARES Act. These Medicare sequester reductions have been suspended through the end of March 2022. From April 2022 through June 2022, a 1% sequester cut will be in effect, with the full 2% cut resuming thereafter. The American Taxpayer Relief Act of 2012, among other things, reduced Medicare payments to several providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These laws may result in additional reductions in Medicare and other healthcare funding and otherwise affect the prices we may obtain for any of our products or product candidates for which we may obtain regulatory approval or the frequency with which any such product is prescribed or used.

Since enactment of the ACA, there have been and continue to be, numerous legal challenges and Congressional actions to repeal and replace provisions of the law. For example, with enactment of the Tax Cuts for Jobs Act, or TCJA, in 2017, Congress repealed the "individual mandate." The repeal of this provision, which requires most Americans to carry a minimal level of health insurance, became effective in 2019. Further, on December 14, 2018, a U.S. District Court judge in the Northern District of Texas ruled that the individual mandate portion of the ACA is an essential and inseverable feature of the ACA and therefore because the mandate was repealed as part of the TCJA, the remaining provisions of the ACA are invalid as well. The U.S. Supreme Court heard this case on November 10, 2020 and on June 17, 2021, dismissed this action after finding that the plaintiffs do not have standing to challenge the constitutionality of the ACA. Litigation and legislation over the ACA are likely to continue, with unpredictable and uncertain results.

The Trump Administration also took executive actions to undermine or delay implementation of the ACA, including directing federal agencies with authorities and responsibilities under the ACA to waive, defer, grant exemptions from or delay the implementation of any provision of the ACA that would impose a fiscal or regulatory burden on states, individuals, healthcare providers, health insurers or manufacturers of pharmaceuticals or medical devices. On January 28, 2021, however, President Biden revoked those orders and issued a new Executive Order which directs federal agencies to reconsider rules and other policies that limit Americans' access to health care and consider actions that will protect and strengthen that access. Under this order, federal agencies are directed to re-examine: policies that undermine protections for people with pre-existing conditions, including complications related to COVID-19; demonstrations and waivers under Medicaid and the ACA that may reduce coverage or undermine the programs, including work requirements; policies that undermine the Health Insurance Marketplace or other markets for health insurance; policies that make it more difficult to enroll in Medicaid and the ACA; and policies that reduce affordability of coverage or financial assistance, including for dependents.

We expect that these healthcare reforms, as well as other healthcare reform measures that may be adopted in the future, may result in additional reductions in Medicare and other healthcare funding, more rigorous coverage criteria, new payment methodologies and additional downward pressure on the price that we receive for any approved product and/or the level of reimbursement physicians receive for administering any approved product we might bring to market. Reductions in reimbursement levels may negatively impact the prices we receive or the frequency with which our products are prescribed or administered. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors. Accordingly, such reforms, if enacted, could have an adverse effect on anticipated revenue from product candidates that we may successfully develop and for which we may obtain marketing approval and may affect our overall financial condition and ability to develop or commercialize product candidates.

The prices of prescription pharmaceuticals in the United States and foreign jurisdictions are subject to considerable legislative and executive actions and could impact the prices we obtain for our products, if and when licensed.

The prices of prescription pharmaceuticals have also been the subject of considerable discussion in the United States. There have been several recent U.S. congressional inquiries, as well as proposed and enacted state and federal legislation designed to, among other things, bring more transparency to pharmaceutical pricing, review the relationship between pricing and manufacturer patient programs, and reduce the costs of pharmaceuticals under Medicare and Medicaid. In 2020, President Trump issued several executive orders intended to lower the costs of prescription products and certain provisions in these orders

have been incorporated into regulations. These regulations include an interim final rule implementing a most favored nation model for prices that would tie Medicare Part B payments for certain physician-administered pharmaceuticals to the lowest price paid in other economically advanced countries, effective January 1, 2021. That rule, however, has been subject to a nationwide preliminary injunction and, on December 29, 2021, the Center for Medicare & Medicaid Services, or CMS, issued a final rule to rescind it. With issuance of this rule, CMS stated that it will explore all options to incorporate value into payments for Medicare Part B pharmaceuticals and improve beneficiaries' access to evidence-based care.

In addition, in October 2020, HHS and the FDA published a final rule allowing states and other entities to develop a Section 804 Importation Program, or SIP, to import certain prescription drugs from Canada into the United States. The final rule is currently the subject of ongoing litigation, but at least six states (Vermont, Colorado, Florida, Maine, New Mexico, and New Hampshire) have passed laws allowing for the importation of drugs from Canada with the intent of developing SIPs for review and approval by the FDA. Further, on November 20, 2020, HHS finalized a regulation removing safe harbor protection for price reductions from pharmaceutical manufacturers to plan sponsors under Part D, either directly or through pharmacy benefit managers, unless the price reduction is required by law. The implementation of the rule has been delayed by the Biden administration from January 1, 2022 to January 1, 2023 in response to ongoing litigation. The rule also creates a new safe harbor for price reductions reflected at the point-of-sale, as well as a new safe harbor for certain fixed fee arrangements between pharmacy benefit managers and manufacturers, the implementation of which have also been delayed by the Biden administration until January 1, 2023.

On July 9, 2021, President Biden signed Executive Order 14063, which focuses on, among other things, the price of pharmaceuticals. The order directs the Department of Health and Human Services, or HHS, to create a plan within 45 days to combat “excessive pricing of prescription pharmaceuticals and enhance domestic pharmaceutical supply chains, to reduce the prices paid by the federal government for such pharmaceuticals, and to address the recurrent problem of price gouging.” On September 9, 2021, HHS released its plan to reduce pharmaceutical prices. The key features of that plan are to: (a) make pharmaceutical prices more affordable and equitable for all consumers and throughout the health care system by supporting pharmaceutical price negotiations with manufacturers; (b) improve and promote competition throughout the prescription pharmaceutical industry by supporting market changes that strengthen supply chains, promote biosimilars and generic drugs, and increase transparency; and (c) foster scientific innovation to promote better healthcare and improve health by supporting public and private research and making sure that market incentives promote discovery of valuable and accessible new treatments.

At the state level, individual states are increasingly aggressive in passing legislation and implementing regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. In addition, regional healthcare organizations and individual hospitals are increasingly using bidding procedures to determine what pharmaceutical products and which suppliers will be included in their prescription drug and other healthcare programs. These measures could reduce the ultimate demand for our products, once approved, or put pressure on our product pricing. We expect that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in reduced demand for our product candidates or additional pricing pressures.

In the European Union, similar political, economic and regulatory developments may affect our ability to profitably commercialize our product candidates, if approved. In markets outside of the United States and the European Union, reimbursement and healthcare payment systems vary significantly by country and many countries have instituted price ceilings on specific products and therapies. In many countries, including those of the European Union, the pricing of prescription pharmaceuticals is subject to governmental control and access. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product. To obtain reimbursement or pricing approval in some countries, we or our collaborators may be required to conduct a clinical trial that compares the cost-effectiveness of our product to other available therapies. If reimbursement of our products is unavailable or limited in scope or amount or if pricing is set at unsatisfactory levels, our business could be materially harmed.

We are subject to stringent privacy laws, information security laws, regulations, policies and contractual obligations related to data privacy and security and changes in such laws, regulations, policies, contractual obligations and failure to comply

with such requirements could subject us to significant fines and penalties, which may have a material adverse effect on our business, financial condition or results of operations.

We are subject to data privacy and protection laws and regulations that apply to the collection, transmission, storage and use of personally-identifying information, which among other things, impose certain requirements relating to the privacy, security and transmission of personal information, including comprehensive regulatory systems in the United States, European Union and United Kingdom. The legislative and regulatory landscape for privacy and data protection continues to evolve in jurisdictions worldwide, and there has been an increasing focus on privacy and data protection issues with the potential to affect our business. Failure to comply with any of these laws and regulations could result in enforcement action against us, including fines, imprisonment of company officials and public censure, claims for damages by affected individuals, damage to our reputation and loss of goodwill, any of which could have a material adverse effect on our business, financial condition, results of operations or prospects.

There are numerous U.S. federal and state laws and regulations related to the privacy and security of personal information. In particular, regulations promulgated pursuant to HIPAA establish privacy and security standards that limit the use and disclosure of individually identifiable health information, or protected health information, and require the implementation of administrative, physical and technological safeguards to protect the privacy of protected health information and ensure the confidentiality, integrity and availability of electronic protected health information. Determining whether protected health information has been handled in compliance with applicable privacy standards and our contractual obligations can be complex and may be subject to changing interpretation. These obligations may be applicable to some or all of our business activities now or in the future.

If we are unable to properly protect the privacy and security of protected health information, we could be found to have breached our contracts. Further, if we fail to comply with applicable privacy laws, including applicable HIPAA privacy and security standards, we could face civil and criminal penalties. HHS enforcement activity can result in financial liability and reputational harm, and responses to such enforcement activity can consume significant internal resources. In addition, state attorneys general are authorized to bring civil actions seeking either injunctions or damages in response to violations that threaten the privacy of state residents. We cannot be sure how these regulations will be interpreted, enforced or applied to our operations. In addition to the risks associated with enforcement activities and potential contractual liabilities, our ongoing efforts to comply with evolving laws and regulations at the federal and state level may be costly and require ongoing modifications to our policies, procedures and systems.

Similar to the laws in the United States, there are significant privacy and data security laws that apply in Europe and other countries. The collection, use, disclosure, transfer, or other processing of personal data, including personal health data, regarding individuals who are located in the European Economic Area, or the EEA, and the processing of personal data that takes place in the EEA, is regulated by the General Data Protection Regulation, or GDPR, which went into effect in May 2018 and which imposes obligations on companies that operate in our industry with respect to the processing of personal data and the cross-border transfer of such data. The GDPR imposes onerous accountability obligations requiring data controllers and processors to maintain a record of their data processing and policies. If our or our partners' or service providers' privacy or data security measures fail to comply with the GDPR requirements, we may be subject to litigation, regulatory investigations, enforcement notices requiring us to change the way we use personal data and/or fines of up to 20 million Euros or up to 4% of the total worldwide annual turnover of the preceding financial year, whichever is higher, as well as compensation claims by affected individuals, negative publicity, reputational harm and a potential loss of business and goodwill.

The GDPR places restrictions on the cross-border transfer of personal data from the European Union to countries that have not been found by the European Commission to offer adequate data protection legislation, such as the United States. There are ongoing concerns about the ability of companies to transfer personal data from the EU to other countries. In July 2020, the Court of Justice of the European Union, or the CJEU, invalidated the EU-U.S. Privacy Shield, one of the mechanisms used to legitimize the transfer of personal data from the EEA to the United States. The CJEU decision also drew into question the long-term viability of an alternative means of data transfer, the standard contractual clauses, for transfers of personal data from the EEA to the United States. While we were not self-certified under the Privacy Shield, this CJEU decision may lead to increased scrutiny on data transfers from the EEA to the United States generally and increase our costs of compliance with data privacy legislation as well as our costs of negotiating appropriate privacy and security agreements with our vendors and business partners.

Laws and regulations governing any international operations we may have in the future may preclude us from developing, manufacturing and selling certain products outside of the United States and require us to develop and implement costly compliance programs.

If we further expand our operations outside the United States, we will need to dedicate additional resources to comply with U.S. laws regarding international operations and the laws and regulations in each jurisdiction in which we operate and plan to operate. The FCPA prohibits any U.S. individual or business from paying, offering or authorizing payment or offering of anything of value, directly or indirectly, to any foreign official, political party or candidate for the purpose of influencing any act or decision of the foreign entity in order to assist the individual or business in obtaining or retaining business. The FCPA also obligates companies whose securities are listed in the United States to comply with certain accounting provisions requiring the company to maintain books and records that accurately and fairly reflect all transactions of the company, including international subsidiaries and to devise and maintain an adequate system of internal accounting controls for international operations.

Compliance with the FCPA is expensive and difficult, particularly in countries in which corruption is a recognized problem. In addition, the FCPA presents particular challenges in the pharmaceutical industry because in many countries, hospitals are operated by the government and doctors and other hospital employees are considered foreign officials. Certain payments to hospitals in connection with clinical trials and other work have been deemed to be improper payments to government officials and have led to FCPA enforcement actions.

Various laws, regulations and executive orders also restrict the use and dissemination outside of the United States or the sharing with certain non-U.S. nationals, of information classified for national security purposes, as well as certain products and technical data relating to those products. Further, the provision of benefits or advantages to physicians to induce or encourage the prescription, recommendation, endorsement, purchase, supply, order or use of medicinal products is prohibited in the European Union. The provision of benefits or advantages to physicians is also governed by the national anti-bribery laws of E.U. Member States, such as the U.K. Bribery Act 2010. Infringement of these laws could result in substantial fines and imprisonment. Payments made to physicians in certain E.U. Member States must be publicly disclosed. Moreover, agreements with physicians often must be the subject of prior notification and approval by the physician's employer, his or her competent professional organization and/or the regulatory authorities of the individual E.U. Member States. These requirements are provided in the national laws, industry codes or professional codes of conduct applicable in the E.U. Member States. Failure to comply with these requirements could result in reputational risk, public reprimands, administrative penalties, fines or imprisonment.

If we expand our presence outside of the United States , it will require us to dedicate additional resources to comply with these laws and these laws may preclude us from developing, manufacturing or selling certain products and product candidates outside of the United States, which could limit our growth potential and increase our development costs. The failure to comply with laws governing international business practices may result in substantial civil and criminal penalties and suspension or debarment from government contracting. The SEC also may suspend or bar issuers from trading securities on U.S. exchanges for violations of the FCPA's accounting provisions.

We and our third-party contract manufacturers must comply with environmental, health and safety laws and regulations, and failure to comply with these laws and regulations could expose us to significant costs or liabilities.

We and our third-party manufacturers are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the use, generation, manufacture, distribution, storage, handling, treatment, remediation and disposal of hazardous materials and wastes. Hazardous chemicals, including flammable and biological materials, are involved in certain aspects of our business, and we cannot eliminate the risk of injury or contamination from the use, generation, manufacture, distribution, storage, handling, treatment or disposal of hazardous materials and wastes. In the event of contamination or injury, or failure to comply with environmental, health and safety laws and regulations, we could be held liable for any resulting damages and any such liability could exceed our assets and resources. We could also incur significant costs associated with civil or criminal fines and penalties for failure to comply with such laws and regulations.

Although we maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials, this insurance may not provide adequate coverage against potential liabilities. We do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us in connection with our storage or disposal of biological, hazardous or radioactive materials.

Environmental, health and safety laws and regulations are becoming increasingly more stringent. We may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair our research, development or production efforts. Our failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

Further, with respect to the operations of our third-party contract manufacturers, it is possible that if they fail to operate in compliance with applicable environmental, health and safety laws and regulations or properly dispose of wastes associated with our products, we could be held liable for any resulting damages, suffer reputational harm or experience a disruption in the manufacture and supply of our product candidates or products.

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, to report financial information or data accurately or to 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, 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. 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. Additionally, we are subject to the risk that a person could allege such fraud or other misconduct, even if none occurred. 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 civil, criminal and administrative penalties, damages, monetary fines, disgorgement, possible exclusion from participation in Medicare, Medicaid and other federal health care programs, contractual damages, reputational harm, diminished profits and future earnings and curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

Risks related to our business and industry

If we fail to attract and keep senior management and key scientific personnel, we may be unable to successfully develop our ADC product candidates, conduct our clinical trials and commercialize our ADC product candidates.

Our ability to compete in the highly competitive biotechnology and biopharmaceutical industries depends upon our ability to attract, motivate and retain highly qualified managerial, scientific and medical personnel. We are highly dependent on members of our senior management, including Anna Protopapas, our President and Chief Executive Officer. The loss of the services of any of our senior management could impede the achievement of our research, development and commercialization objectives. Also, each of these persons may terminate their employment with us at any time. We do not maintain “key person” insurance for any of our executives or other employees.

Recruiting and retaining qualified scientific, clinical, sales and marketing personnel will also be critical to our success. We conduct our operations at our facility in Cambridge, Massachusetts, in a region that is headquarters to many other biopharmaceutical companies and many academic and research institutions. Competition for skilled personnel is intense and the turnover rate can be high, which may limit our ability to hire and retain highly qualified personnel on acceptable terms or at all. We may not be able to attract and retain these personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for similar personnel. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development and commercialization strategy. Our consultants and advisors, may be employed or have commitments under consulting or advisory contracts with other entities that may limit their availability to us.

We may encounter difficulties in managing our growth and expanding our operations successfully.

As we seek to advance our product candidates through clinical trials and commercialization, we will need to expand our development, regulatory, manufacturing, marketing and sales capabilities or contract with third parties to provide these capabilities for us. As our operations expand, we expect that we will need to manage additional relationships with various strategic partners, suppliers and other third parties. Future growth will impose significant added responsibilities on members of management. Our future financial performance and our ability to commercialize our product candidates and to compete effectively will depend, in part, on our ability to manage any future growth effectively. To that end, we must be able to manage our development efforts and clinical trials effectively and hire, train and integrate additional management, administrative and, if necessary, sales and marketing personnel. Due to our limited financial resources and the limited experience of our management team in managing a company with such anticipated growth, we may not be able to accomplish these tasks, and our failure to accomplish any of them could prevent us from successfully growing our company or disrupt our operations.

If product liability lawsuits are brought against us, we may incur substantial liabilities and may be required to limit commercialization of our ADC product candidates.

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 commercialize any products. For example, we may be sued if any product we develop causes, or is perceived to cause, 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. Even a successful defense would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in:

- injury to our reputation;
- decreased demand for our product candidates or products that we may develop;
- withdrawal of clinical trial participants;
- costs to defend the related litigations;
- a diversion of management's time and our resources;
- substantial monetary awards to clinical trial participants or patients;
- product recalls, withdrawals or labeling, marketing or promotional restrictions;
- loss of revenue;
- the inability to commercialize our product candidates; and
- a decline in our stock price.

Failure to obtain and retain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of products we develop. We currently carry product liability insurance covering our clinical trials in the amount of $10 million in the aggregate. 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. In such instance, we might 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. If we are unable to obtain or maintain sufficient insurance coverage at an acceptable cost or to otherwise protect against potential product liability claims, it could prevent or inhibit the development and commercial production and sale of our product candidates, which could adversely affect our business, financial condition, results of operations and prospects.

We may acquire assets or form strategic alliances in the future, and we may not realize the benefits of such acquisitions.

We may acquire additional technologies and assets, form strategic alliances or create joint ventures with third parties that we believe will complement or augment our existing business. If we acquire assets with promising markets or technologies, we may not be able to realize the benefit of acquiring such assets if we are unable to successfully integrate them with our existing technologies. We may encounter numerous difficulties in developing, manufacturing and marketing any new products resulting from a strategic alliance or acquisition that delay or prevent us from realizing their expected benefits or enhancing our business. We cannot be assured that, following any such acquisition, we will achieve the expected synergies to justify the transaction.

Our internal computer systems, or those of our strategic partners, third-party collaborators or other contractors or consultants, may fail or suffer security breaches, which could adversely affect our business, including through material disruptions of our programs or business operations.

Our internal information technology systems and those of our current or future strategic partners, third party collaborators and other contractors and consultants are vulnerable to service interruptions or security breaches, including from cyber-attacks, computer viruses, ransomware, malware, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. If a failure, accident or security breach were to occur and cause interruptions in our operations or the operations of those third parties with which we contract, it could result in a material disruption of our programs and our business operations. We could lose access to our trade secrets or other proprietary information or experience other disruptions, which could require a substantial expenditure of resources to remedy. For example, the loss of clinical trial data for our product candidates could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data.

We could also be subject to risks caused by misappropriation, misuse, leakage, falsification or intentional or accidental release or loss of information maintained in our information systems and networks, including personal information of our employees or others. Outside parties may attempt to penetrate our systems or those of the third parties with which we contract or to coerce or fraudulently induce our employees or employees of such third parties to disclose sensitive information to gain access to our data. The number and complexity of these threats continue to increase over time. Although we develop and maintain systems and controls designed to prevent these events from occurring, and we have a process to identify and mitigate threats, such risks cannot be eliminated. Furthermore, there can be no assurance that we, or those third parties with which we contract, will promptly detect any such disruption or security breach, if at all. Additionally, the development and maintenance of these systems, controls and processes is costly and requires ongoing monitoring and updating as technologies change and efforts to overcome security measures become more sophisticated. To the extent that any disruption or security breach results in a loss of or damage to our data or applications or other data or applications relating to our technology or product candidates, or inappropriate disclosure of confidential or proprietary information, we could incur liabilities, our competitive position and the market perception of the effectiveness of our security measures could be harmed, our credibility could be damaged and the further development of our product candidates could be delayed.

Risks related to our common stock

If our stock price is volatile, our stockholders could incur substantial losses.

Our stock price has been and may continue to be volatile. During the period from February 25, 2019 to February 25, 2022, the closing price of our common stock ranged from a high of $27.59 per share to a low of $1.45 per share. The market price of shares of our common stock could be subject to wide fluctuations in response to many risk factors listed in this “Risk Factors” section, and others beyond our control, including:

- results and timing of preclinical studies and clinical trials of our current or future product candidates, including UpRi and XMT-1592;
- results of clinical trials of our competitors’ products;
- failure to adequately protect our trade secrets;
- the terms on which we raise additional capital or our ability to raise it;
- commencement or termination of any strategic partnership or licensing arrangement;
- regulatory developments, including actions with respect to our products or our competitors’ products;

- actual or anticipated fluctuations in our financial condition and operating results;
- publication of research reports by securities analysts about us or our competitors or our industry;
- our failure or the failure of our competitors to meet analysts' projections or guidance that we or our competitors may give to the market;
- additions and departures of key personnel;
- strategic decisions by us or our competitors, such as acquisitions, divestitures, spin-offs, joint ventures, strategic investments or changes in business strategy;
- the passage of legislation or other regulatory developments affecting us or our industry;
- changes in the structure of healthcare payment systems;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- sales of our common stock by us (including pursuant to the pre-funded warrants described below), our insiders or our other stockholders;
- speculation in the press or investment community;
- announcement or expectation of additional financing efforts;
- changes in market conditions for biopharmaceutical stocks; and
- changes in general market and economic conditions.

In addition, the stock market has historically experienced significant volatility, particularly with respect to pharmaceutical, biotechnology and other life sciences company stocks. The volatility of pharmaceutical, biotechnology and other life sciences company stocks often does not relate to the operating performance of the companies represented by the stock. As a result of this volatility, stockholders may not be able to sell their common stock at or above the price for which they paid for their shares. As we operate in a single industry, we are especially vulnerable to these factors to the extent that they affect our industry or our products, or to a lesser extent our markets. Furthermore, as a result of this volatility, we may not be able to maintain compliance with listing requirements of the Nasdaq Stock Market. In the past, securities class action litigation has often been initiated against companies following periods of volatility in their stock price. This type of litigation could result in substantial costs and divert our management's attention and resources, and could also require us to make substantial payments to satisfy judgments or to settle litigation.

Our principal stockholders and management own a significant percentage of our stock and are able to exercise significant influence over matters subject to stockholder approval.

As of December 31, 2021, our executive officers, directors and stockholders who own more than 5% of our outstanding common stock, together with their respective affiliates, beneficially owned a significant amount of our common stock, including shares subject to outstanding options and warrants that are exercisable within 60 days after such date. Accordingly, these stockholders, if they act together, could be able to exert a significant degree of influence over our management and affairs and over matters requiring stockholder approval, including the election of our board of directors and approval of significant corporate transactions. This concentration of ownership could have the effect of entrenching our management or board of directors, delaying or preventing a change in control or otherwise discouraging a potential acquirer from attempting to obtain control of us, which in turn could have a material and adverse effect on the fair market value of our common stock.

We do not expect to pay any cash dividends for the foreseeable future.

We do not anticipate that we will pay any cash dividends to holders of our common stock in the foreseeable future. Instead, we plan to retain any earnings to maintain and expand our operations. In addition, our credit facility contains terms and any future debt financing arrangement may contain additional terms prohibiting or limiting the amount of dividends that may be declared or paid on our common stock. Accordingly, investors must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any return on their investment.

Provisions in our amended and restated certificate of incorporation, our amended and restated by-laws 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.

Our amended and restated certificate of incorporation, amended and restated by-laws and Delaware law contain provisions that may have the effect of discouraging, delaying or preventing a change in control of us or changes in our management that stockholders may consider favorable, including transactions in which our stockholders might otherwise receive a premium for their shares. Our amended and restated certificate of incorporation and by-laws include provisions that:

- authorize "blank check" preferred stock, which could be issued by our board of directors without stockholder approval and may contain voting, liquidation, dividend and other rights superior to our common stock;
- create a classified board of directors whose members serve staggered three-year terms;
- specify that special meetings of our stockholders can be called only by our board of directors;
- prohibit stockholder action by written consent;
- establish an advance notice procedure for stockholder approvals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to our board of directors;
- provide that vacancies on our board of directors may be filled only by a majority of directors then in office, even though less than a quorum;
- provide that our directors may be removed only for cause;
- specify that no stockholder is permitted to cumulate votes at any election of directors;
- expressly authorize our board of directors to have discretion to modify, alter or repeal our amended and restated by-laws; and
- require supermajority votes of the holders of our common stock to amend specified provisions of our amended and restated certificate of incorporation and amended and restated by-laws.

In addition, because we are incorporated in the State of Delaware, we are governed by the provisions of Section 203 of the General Corporation Law of the State of Delaware, or the DGCL, which prohibits a person who owns in excess of 15% of our outstanding voting stock from merging or combining with us for a period of three years after the date of the transaction in which the person acquired in excess of 15% of our outstanding voting stock, unless the merger or combination is approved in a prescribed manner.

Any provision of our amended and restated certificate of incorporation, amended and restated by-laws or Delaware law that has the effect of delaying or deterring a 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.

Our ability to use net operating losses and certain tax credit carryforwards may be subject to certain limitations.

For the years ended December 31, 2021, 2020 and 2019, we recorded no income tax benefit for the net operating losses incurred in each year, due to the uncertainty of realizing a benefit from those items. We have incurred net operating losses (NOLs) since our inception. As of December 31, 2021, we have federal NOLs of approximately $403.6 million and state NOLs of approximately $337.1 million. Of the $403.6 million of federal NOLs, $34.1 million expire at various dates through 2037. The remaining $369.4 million of federal NOLs do not expire. The state NOLs will expire at various dates through 2041. As of December 31, 2021, we had Federal and State research and development tax credit carryforwards of approximately $10.1 million and $3.1 million, respectively, which expire at various dates through 2041. Under the 2017 Tax Act, federal NOLs incurred in 2018 and in future years may be carried forward indefinitely, but the deductibility of such federal NOLs is limited. It is uncertain if and to what extent various states will conform to the 2017 Tax Act. In addition, under Section 382 of the Internal Revenue Code, 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 NOLs and other pre-change tax attributes to offset its post-change income or taxes may be limited. Our past issuances of stock and other changes in our stock ownership may have resulted in ownership changes within the

meaning of Section 382 of the Code; accordingly, our pre-change NOLs may be subject to limitation under Section 382. If we determine that we have not undergone an ownership change, the Internal Revenue Service could challenge our analysis, and our ability to use our NOLs to offset taxable income could be limited by Section 382 of the Code. Future changes in our stock ownership, some of which are outside of our control, could result in ownership changes under Section 382 of the Code further limiting our ability to utilize our NOLs. Our NOLs may also be impaired under state law. Accordingly, we may not be able to utilize a material portion of our NOLs. We have determined that ownership changes have occurred since our inception and that certain NOLs and research and development tax credit carryforwards will be subject to limitation. We may also have incurred subsequent ownership changes. Furthermore, our ability to utilize our NOLs is conditioned upon our attaining profitability and generating U.S. federal taxable income. We have incurred net losses since our inception and anticipate that we will continue to incur significant losses for the foreseeable future; thus, we do not know whether or when we will generate the U.S. federal taxable income necessary to utilize our NOLs. We have recorded a full valuation allowance related to our NOLs and other deferred tax assets due to the uncertainty of the ultimate realization of the future benefits of those assets.

Our amended and restated certificate of incorporation designates the state or federal courts within the State of Delaware as the exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our amended and restated certificate of incorporation provides that, subject to limited exceptions, the Court of Chancery of the State of Delaware will be the exclusive forum for (1) any derivative action or proceeding brought on our behalf, (2) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders, (3) any action asserting a claim against us arising pursuant to any provision of the DGCL, our amended and restated certificate of incorporation or our amended and restated by-laws, (4) any action to interpret, apply, enforce or determine the validity of our amended and restated certificate of incorporation or amended and restated by-laws or (5) any other action asserting a claim against us that is governed by the internal affairs doctrine, in each case subject to the Court of Chancery having personal jurisdiction over the indispensable parties named as defendants therein. Any person or entity that purchases or otherwise acquires any interest in shares of our capital stock shall be deemed to have notice of and to have consented to the provisions of our amended and restated certificate of incorporation described above. This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage such lawsuits against us and our directors, officers and employees. Alternatively, if a court were to find these provisions of our amended and restated certificate of incorporation inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely affect our business and financial condition.

This exclusive forum provision would not apply to suits brought to enforce a duty or liability created by the Securities Exchange Act of 1934, as amended, which provides for exclusive jurisdiction of the federal courts. It could apply, however, to a suit that falls within one or more of the categories enumerated in the exclusive forum provision and asserts claims under the Securities Act of 1933, as amended, or the Securities Act, inasmuch as Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all suits brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder, provided, that with respect to claims under the Securities Act, our stockholders will not be deemed to have waived our compliance with the federal securities laws and the rules and regulations thereunder.

If securities analysts do not publish research or reports about our business or if they publish negative evaluations of our stock, the price of our stock and trading volume could decline.

The trading market for our common stock depends, in part, on the research and reports that industry or financial analysts publish about us or our business. If one or more of the analysts covering our business downgrade their evaluations of our stock, the price of our stock could decline. If one or more of these analysts cease to cover our stock or fail to regularly publish reports on us, we could lose visibility in the market for our stock, which in turn could cause our stock price to decline.

A portion of our total outstanding shares may be sold into the market in the near future, which could cause the market price of our common stock to decline significantly, even if our business is doing well.

Sales of a significant number of shares of our common stock in the public market could occur at any time. These sales, or the perception in the market that the holders of a large number of shares of common stock intend to sell shares, could reduce the market price of our common stock.

We have registered substantially all shares of common stock that we may issue under our equity compensation plans. These shares can be freely sold in the public market upon issuance and once vested, subject to volume limitations applicable to

affiliates. If any of these additional shares are sold, or if it is perceived that they will be sold, in the public market, the market price of our common stock could decline.

General risk factors

Our business is subject to risks arising from the outbreaks of disease, such as epidemics or pandemics, including the ongoing COVID-19 pandemic.

The widespread infection of COVID-19 in the United States and abroad has caused significant volatility and uncertainty in U.S. and international markets, which could result in a prolonged economic downturn that may disrupt our business, including by adversely affecting our ability to conduct financings on terms acceptable to us, if at all.

In addition, we may experience disruptions that could severely impact our business, preclinical studies and clinical trials, including:

- Our clinical trials may be adversely affected, delayed or interrupted, including, for example, site initiation, patient recruitment and enrollment, availability of clinical trial materials, and data analysis. Some patients and clinical investigators may not be able to comply with clinical trial protocols and patients may choose to withdraw from our trials or we may have to pause enrollment or we may choose to or be required to pause enrollment and or patient dosing in our ongoing clinical trials in order to preserve health resources and protect clinical trial participants, which could delay our clinical trials or impact the strength or validity of our clinical trial data. It is unknown how long these pauses or disruptions could continue.

- We currently rely on third parties to, among other things, manufacture raw materials, manufacture our product candidates for our clinical trials, shipping of investigational drugs and clinical trial samples, perform quality testing and supply other goods and services to run our business. If any such third party in our supply chain for materials are adversely impacted by restrictions resulting from the coronavirus pandemic, including staffing shortages, raw material supplies, production slowdowns or disruptions in delivery systems, our supply chain may be disrupted, limiting our ability to manufacture our product candidates for our clinical trials and conduct our research and development operations.

- Our increased reliance on personnel working from home 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 or delay necessary interactions with local and federal regulators, ethics committees, manufacturing sites, research or clinical trials sites and other important agencies and contractors.

- Our employees and contractors conducting research and development activities may not be able to access our laboratory for an extended period of time as a result of the closure of our offices and the possibility that governmental authorities further modify current restrictions. As a result, this could delay timely completion of preclinical activities, including completing IND-enabling studies or our ability to select future development candidates, and initiation of additional clinical trials for other of our development programs

- Health regulatory agencies globally may experience disruptions in their operations as a result of the COVID-19 pandemic. The FDA and comparable foreign regulatory agencies may have slower response times or be under-resourced to continue to monitor our clinical trials and, as a result, review, inspection, and other timelines may be materially delayed. It is unknown how long these disruptions could continue, were they to occur. Any prolongation or de-prioritization of our clinical trials or delay in regulatory review resulting from such disruptions could materially affect the development of our product candidates. For example, regulatory authorities may require that we not distribute a product candidate lot until the relevant agency authorizes its release. Such release authorization may be delayed as a result of the COVID-19 pandemic and could result in delays to our clinical trials.

- The COVID-19 pandemic may cause the trading prices for our common shares and other biopharmaceutical companies' shares to be highly volatile. As a result, we may face difficulties raising capital through sales of our common shares or such sales may be on unfavorable terms. In addition, a recession, depression or other sustained adverse market event resulting from the spread of the coronavirus could materially and adversely affect our business and the value of our common shares.

The COVID-19 pandemic continues to evolve rapidly. The ultimate impact of the coronavirus pandemic on our business operations is highly uncertain and subject to change and will depend on future developments, which cannot be accurately predicted, including the duration of the pandemic, the emergence and severity of new variants of the virus, additional or modified government actions, new information that will emerge concerning the severity and impact of COVID-19, the timing, availability, efficacy, adoption and distribution of vaccines or other preventative treatments and other actions taken to contain coronavirus or 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, or the third parties upon whom we depend, may be adversely affected by serious disasters.

Any unplanned event, such as a flood, fire, explosion, earthquake, extreme weather condition, medical epidemic, power shortage, telecommunication failure or other natural or human-made accident or incident that results in us being unable to fully use our facilities, or the facilities of third parties with which we contract, may have a material and adverse effect on our ability to operate our business and may have significant negative consequences on our financial and operating conditions. Loss of access to these facilities or operations may result in increased costs, delays in the development of our current or future product candidates or the interruption of our business operations for a substantial period of time.

There can be no assurance that the amounts of insurance that we maintain will be sufficient to satisfy any damages and losses in the event a serious disaster or similar event occurs. If our facilities, or the manufacturing facilities of our third-party contract manufacturers, are unable to operate because of an accident or incident or for any other reason, even for a short period of time, any or all of our research and development programs and commercialization efforts may be harmed.

Unfavorable global economic or geopolitical conditions could adversely affect our business, financial condition or results of operations.

Our results of operations could be adversely affected by general conditions in the global economy, geopolitical considerations and global financial market conditions. For example, the global financial crisis caused extreme volatility and disruptions in the capital and credit markets. We cannot assure stockholders that deterioration of the global credit and financial markets would not negatively impact our stock price, our current portfolio of cash equivalents or investments, or our ability to meet our financing objectives. If the current equity and credit markets deteriorate, it may make any necessary debt or equity financing more difficult, more costly, and more dilutive. Failure to secure any necessary financing in a timely manner and on favorable terms could have a material adverse effect on our growth strategy, financial performance and stock price and could require us to delay or abandon clinical development plans. A weak or declining economy, or emerging or actual geopolitical risks could also strain our suppliers and vendors involved in our clinical development activities. Any of the foregoing could harm our business and we cannot anticipate all of the ways in which the current economic and geopolitical climate and financial market conditions could adversely impact our business.

ITEM 1B. UNRESOLVED STAFF COMMENTS.

None.

ITEM 2. PROPERTIES.

Our corporate headquarters are located in Cambridge, Massachusetts. We occupy approximately 45,000 square feet of office and laboratory space that we lease in a multi-tenant building in which our corporate headquarters are located, which lease expires in March 2026. We have an option to extend the lease term for an additional five years thereafter. We believe that this office and laboratory space is sufficient to meet our current needs, and that suitable additional space will be available as and when needed.

ITEM 3. LEGAL PROCEEDINGS.

We are not currently party to any material legal proceedings. Although the results of litigation and claims cannot be predicted with certainty, as of the date of this Annual Report on Form 10-K, we do not believe we are party to any claim or litigation, the outcome of which, if determined adversely to us, would individually or in the aggregate be reasonably expected to have a material adverse effect on our business.

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

Certain Information Regarding the Trading of Our Common Stock

Our common stock trades under the symbol "MRSN" on the Nasdaq Global Select Market. As of February 25, 2022, there were 18 holders of record of shares of our common stock. 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.

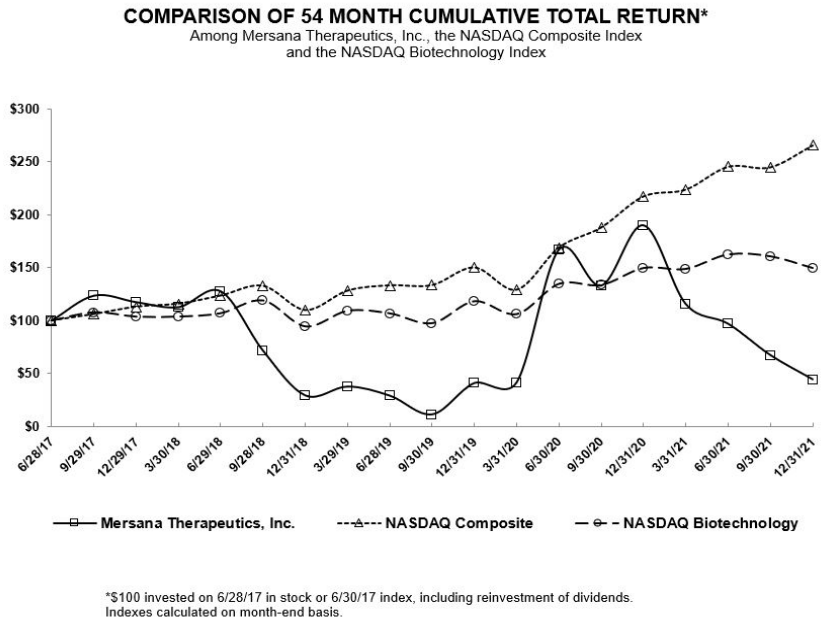
Dividend Policy

We have never declared nor paid cash dividends on our common stock. We currently intend to retain all of our future earnings, if any, to finance the growth and development of our business. We do not intend to pay cash dividends in respect of our common stock in the foreseeable future. In addition, our loan and security agreement with Silicon Valley Bank and Oxford Finance LLC contains restrictive covenants that prohibit us, subject to certain exceptions, from paying dividends on our common stock. Any future determination to pay cash dividends will be made at the discretion of our board of directors and will depend on restrictions and other factors our board of directors may deem relevant. Investors should not purchase our common stock with the expectation of receiving cash dividends.

Stock Performance Graph

The following performance graph and related information shall not be deemed to be "soliciting material" or to be "filed" with the Securities and Exchange Commission, or SEC, for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or the Exchange Act, nor shall such information be incorporated by reference into any future filing under the Exchange Act or Securities Act of 1933, as amended, or the Securities Act, except to the extent that we specifically incorporate it by reference into such filing.

The following graph compares the performance of our common stock to the Nasdaq Composite Index and to the Nasdaq Biotechnology Index from June 28, 2017 (the first date that shares of our common stock were publicly traded) through December 31, 2021, which was the last trading day of the year. The comparison assumes $100 was invested in our common stock and in each of the foregoing indices after the market closed on June 28, 2017, and it assumes reinvestment of dividends, if any. The stock price performance included in this graph is not necessarily indicative of future stock price performance.



Recent Sales of Unregistered Securities

On January 19, 2021, we granted our chief human resources officer an option to purchase 100,000 shares of our common stock, on April 26, 2021, we granted our chief legal officer an option to purchase 112,500 shares of our common stock, on August 18, 2021, we granted our senior vice president and chief manufacturing officer an option to purchase 112,500 shares of our common stock and on October 27, 2021, we granted our senior vice president, strategic product planning & program leadership an option to purchase 112,500 shares of our common stock, each as an inducement to employment in accordance with Nasdaq Listing Rule 5635(c)(4). No underwriters were involved in the foregoing issuances of securities. The securities were issued pursuant to Section 4(a)(2) under the Securities Act of 1933, as amended, relating to transactions by an issuer not involving any public offering. The recipients either received adequate information about us or had access, through other relationships, to such information.

Each stock option is scheduled to become exercisable as to 25% of the shares underlying the option on the first anniversary of the date of grant, and as to an additional 8.33% of the shares underlying the option at the end of each successive quarter following such date, subject to each recipient's continued service. The option granted to our chief human resources officer has an exercise price of $21.67, the option granted to our chief legal officer has an exercise price of $16.98 per share, the option granted to our senior vice president and chief manufacturing officer has an exercise price of $11.56 per share and the option granted to our senior vice president, strategic product planning & program leadership has an exercise price of $8.63 per share.

Purchases of Equity Securities by the Issuer and Affiliates Purchasers

Neither we nor any affiliated purchaser or anyone acting on behalf of us or an affiliated purchaser made any purchases of shares of our common stock during the fourth quarter of 2021.

ITEM 6. [RESERVED]

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our audited financial statements and related notes appearing elsewhere in this Annual Report on Form 10-K.

Our actual results and timing of certain events may differ materially from the results discussed, projected, anticipated, or indicated in any forward-looking statements. We caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate may differ materially from the forward-looking statements contained in this Annual Report. In addition, even if our results of operations, financial condition and liquidity, and the development of the industry in which we operate are consistent with the forward-looking statements contained in this Annual Report, they may not be predictive of results or developments in future periods.

The following information and any forward-looking statements should be considered in light of factors discussed elsewhere in the Annual Report on Form 10-K, including those risks identified under Part II, Item 1A. Risk Factors.

We caution readers not to place undue reliance on any forward-looking statements made by us, which speak only as of the date they are made. We disclaim any obligation, except as specifically required by law and the rules of the Securities and Exchange Commission, or SEC, to publicly update or revise any such statements to reflect any change in our expectations or in events, conditions or circumstances on which any such statements may be based, or that may affect the likelihood that actual results will differ from those set forth in the forward-looking statements.

For our discussion and analysis of the year ended December 31, 2020 compared to the year ended December 31, 2019, please refer to "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report on Form 10-K for the year ended December 31, 2020, as filed with the SEC on February 26, 2021.

Overview

We are a clinical-stage biopharmaceutical company focused on developing antibody drug conjugates, or ADCs, that offer a clinically meaningful benefit for cancer patients with significant unmet need. We have leveraged over 20 years of industry learning in the ADC field to develop proprietary and differentiated technology platforms that enable us to develop ADCs designed to have improved efficacy, safety and tolerability relative to existing ADC therapies.

We believe that our innovative platforms, including Dolaflexin and Dolasynthen, delivering our proprietary auristatin DolaLock payload, as well as Immunosynthen, which delivers our novel proprietary stimulator of interferon genes, or STING, agonist ImmunoLock payload, together comprise a highly efficient product engine that has enabled a robust discovery pipeline for us and our partners. Our ADCs in preclinical studies and clinical trials include first-in-class molecules that target multiple tumor types with high unmet medical need. Our belief is that our novel ADCs may have more favorable safety and efficacy compared to more traditional existing ADCs developed using first-generation technology.

Our goal is to become a leading oncology company by leveraging the potential of our innovative and differentiated ADC technologies and the experience and competencies of our management team to identify, acquire and develop promising ADC product candidates and to commercialize cancer therapeutics that are improvements over existing treatments.

UpRi (upifitamab rilsodotin), our first-in-class ADC targeting the sodium-dependent phosphate transport protein NaPi2b, utilizes the Dolaflexin platform to deliver about 10 DolaLock payload molecules per antibody. We believe the NaPi2b antigen is broadly expressed in ovarian cancer and other cancers with limited expression in normal tissue. We are currently evaluating UpRi in platinum-resistant ovarian cancer in a single-arm registrational trial, which we refer to as UPLIFT, for which we expect to complete enrollment in the third quarter of 2022. We are also conducting a Phase 1/2 umbrella combination trial, which we refer to as UPGRADE. The first combination we are exploring is the combination of UpRi with carboplatin, a standard platinum chemotherapy broadly used in the treatment of platinum-sensitive ovarian cancer. We may explore other combinations in the future. We expect to report interim data from UPGRADE in the second half of 2022. In the second quarter of 2022, we expect to initiate enrollment in a randomized placebo-controlled Phase 3 trial, which we refer to as UP-NEXT, to evaluate UpRi as single agent maintenance treatment in patients with platinum-sensitive ovarian cancer that have high NaPi2b expression. Together, data from these trials have the potential to establish the safety and efficacy of UpRi across a wide range of ovarian cancer patients, from those who are platinum-resistant and heavily pre-treated to those in earlier lines of the disease.

XMT-1592 was created using our Dolasynthen platform and also targets NaPi2b. XMT-1592 comprises the same proprietary NaPi2b antibody and auristatin DolaLock payload with controlled bystander effect as in UpRi, with the additional features that our Dolasynthen platform offers, including homogeneity, site-specific bioconjugation and precise drug-to-antibody ratio, or DAR. We are conducting a Phase 1 dose exploration trial of XMT-1592 in patients with ovarian cancer and non-small cell lung cancer, NSCLC, adenocarcinoma, which we expect to complete in the second half of 2022.

Our early-stage programs include XMT-1660, a B7-H4-targeted Dolasynthen ADC, as well as XMT-2056, a STING-agonist ADC developed using our novel Immunosynthen platform and targeting a novel epitope of human epidermal growth factor receptor 2, or HER2. Our goal is to rapidly progress these candidates through investigational new drug, or IND, -enabling studies. We expect to initiate a Phase 1 clinical trial of each of XMT-1660 and XMT-2056 in mid-2022. We believe that these development candidates provide significant opportunities in areas of high unmet need such as breast cancer and other tumors. We also have two earlier stage preclinical candidates, which we refer to as XMT-2068 and XMT-2175, both of which leverage our Immunosynthen platform and target tumor-associated antigens.

In addition, we have established strategic research and development partnerships with Janssen Biotech, Inc., or Janssen, and Merck KGaA for the development and commercialization of additional ADC product candidates leveraging our proprietary Dolasynthen and Dolaflexin platform technologies against a limited number of targets selected by our partners. We believe the potential of our ADC technologies, supported by our scientific and technical expertise and enabled by our intellectual property strategy, all support our independent and collaborative efforts to discover and develop life-changing ADCs for patients fighting cancer.

In February 2022, we entered into a research collaboration and license agreement with Janssen to collaborate on the discovery and research of Dolasynthen ADCs for up to three antigen targets utilizing Janssen’s antibodies, with Janssen leading development, manufacturing and commercialization worldwide. We refer to this as the Janssen Collaboration. Upon execution of the agreement we received an upfront payment of $40 million. Our primary objective in entering into the Janssen Collaboration was to collaborate with a leading global pharmaceutical company to further validate the potential of our Dolasynthen platform, to enable the development of novel ADC product candidates, to provide near term non-dilutive funding and to drive significant long-term value.

Since inception, our operations have focused on building our platforms, identifying potential product candidates, producing drug substance and drug product material for use in preclinical studies, conducting preclinical and toxicology studies, manufacturing clinical trial material and conducting clinical trials, establishing and protecting our intellectual property, staffing our company and raising capital. We do not have any products approved for sale and have not generated any revenue from

product sales. We have funded our operations primarily through our strategic partnerships, private placements of our convertible preferred stock, public offerings of our common stock and an at-the-market, or ATM, equity offering program.

Since inception, we have incurred significant cumulative operating losses. Our net losses were $170.1 million and $88.0 million for the years ended December 31, 2021 and 2020, respectively. As of December 31, 2021, we had an accumulated deficit of $450.5 million. We expect to continue to incur significant expenses and operating losses over the next several years. We anticipate that our expenses will increase significantly in connection with our ongoing activities, as we:

- continue clinical development activities for our clinical product candidates, UpRi, including UPLIFT, UPGRADE and UP-NEXT, and XMT-1592;
- continue diagnostic development efforts with respect to the NaPi2b biomarker;
- complete IND-enabling studies and commence clinical trials for our preclinical development candidates XMT-1660 and XMT-2056;
- continue activities to discover, validate and develop additional product candidates, including XMT-2068 and XMT-2175;
- maintain, expand and protect our intellectual property portfolio; and
- hire additional research, development and general and administrative personnel.

Impact of COVID-19 on Our Business

We are continuing to monitor the impact of the coronavirus, or COVID-19, pandemic on our operations and ongoing clinical and preclinical development, as well as discovery efforts. Mitigation activities to minimize COVID-19-related operation disruptions are ongoing and include:

- We are currently enrolling patients at clinical sites in different geographic areas around the world in our ongoing clinical trials, though staffing constraints have become an increasing challenge for the clinical sites with which we work. If staffing challenges persist, we may experience associated delays in trial enrollment. We are in the process of initiating additional clinical sites both inside and outside the United States to increase enrollment, which we believe could also mitigate this potential risk. Consistent with FDA guidance, we allow for remote patient monitoring and remote testing, when reasonably possible.
- To the best of our knowledge, our contract research and manufacturing partners continue to operate their operations at or near normal levels, though staffing constraints and sourcing of raw and other materials have become an increasing challenge for our vendors. If staffing and/or material sourcing challenges continue, we may experience associated delays in our laboratory, clinical or manufacturing services. We believe we currently have appropriate service support and sufficient inventory of UpRi and XMT-1592 to support our ongoing clinical trials, and we currently expect to have sufficient inventory of XMT-1660 and XMT-2056 to commence Phase 1 clinical trials in 2022. We have planned research, clinical and manufacturing activities to address all currently anticipated future needs. We continue to monitor the research clinical and manufacturing operations of our vendors.

The ultimate impact of the COVID-19 pandemic on our business operations is highly uncertain and subject to change and will depend on future developments, which cannot be accurately predicted. While the pandemic did not materially affect our financial results and business operations in the year ended December 31, 2021, we are unable to predict the impact that COVID-19 will have on our financial position and operating results in future periods due to numerous uncertainties. Management continues to actively monitor the situation and the possible effects on our financial condition, operations, suppliers, vendors, our workforce and the overall industry. For additional information about risks and uncertainties related to the COVID-19 pandemic that may impact our business, our financial condition or our results of operations, see “Part I, Item 1A—Risk Factors” in this Annual Report on Form 10-K.

Financial Operations Overview

Revenue

To date, we have not generated any revenue from the sale of products. All of our revenue has been generated from strategic partnerships.

In June 2014, we entered into an agreement with Merck KGaA for the development and commercialization of ADC product candidates utilizing Fleximer for up to six target antigens. Merck KGaA is responsible for generating antibodies against the target antigens and we are responsible for generating Fleximer and our proprietary payloads and conjugating this to the antibody to create the ADC product candidates. Merck KGaA has the exclusive right to and is responsible for the further development and commercialization of these ADC product candidates. In May 2018, we entered into a supply agreement with Merck KGaA for the supply of materials that could be used for IND-enabling studies and clinical trials.

For the years ended December 31, 2021 and 2020, we recognized revenue of an immaterial amount and $0.8 million, respectively, related to the Merck KGaA agreements.

For the foreseeable future, we expect substantially all of our revenue to be generated from our collaboration agreements with Janssen, Merck KGaA and Asana BioSciences. Given the uncertain nature and timing of clinical development, we cannot predict when or whether we will receive further milestone payments or any royalty payments under these collaborations.

For information about our revenue recognition policy, see the Notes to Consolidated Financial Statements included in this Annual Report on Form 10-K.

Expenses

Research and Development Expenses

Research and development expenses include our drug discovery efforts, manufacturing, and the development of our product candidates, which consist of:

- employee-related expenses, including salaries, benefits, and stock-based compensation expense;
- costs of funding research and development performed by third parties that conduct research, preclinical activities, manufacturing and clinical trials on our behalf;
- laboratory supplies;
- facility costs, including rent, depreciation and maintenance expenses; and
- upfront and milestone payments under our third-party licensing agreements.

Research and development costs are expensed as incurred. Costs of certain activities, such as manufacturing, preclinical studies and clinical trials, are generally recognized based on an evaluation of the progress to completion of specific tasks. Costs for certain development activities, such as clinical trials, are recognized based on an evaluation of the progress to completion of specific tasks using data such as patient enrollment, clinical site activations and information provided to us by the third parties with whom we contract.

Research and development activities are central to our business model. Product candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials and manufacturing costs. We expect that our future research and development costs will continue to increase over current levels, depending on the progress of our clinical development programs. There are numerous factors associated with the successful development and commercialization of any of our product candidates, including future trial design and various regulatory requirements, many of which cannot be determined with accuracy at our current stage of development. Additionally, future commercial and regulatory factors beyond our control may impact our clinical development programs and plans.

A significant portion of our research and development costs have been external costs, which we track on a program-by-program basis following IND submission. We have not historically tracked all of our internal research and development expenses on a program-by-program basis as they are deployed across multiple projects under development. The following table summarizes our external research and development expenses, by program, following IND submission for the years ended December 31, 2021, 2020 and 2019. All external research and development expenses not attributable to the UpRi and XMT-1592 programs are captured within preclinical and discovery costs. These costs relate to XMT-1592 prior to its IND submission in early 2020, as well as our preclinical development candidates XMT-1660, XMT-2056, XMT-2068 and XMT-2175, and additional earlier discovery stage programs and certain unallocated costs. Our internal research and development costs are primarily personnel-related costs, stock-based compensation costs, and facility costs, including depreciation, and lab consumables.

(in thousands)	Year Ended December 31, 2021	2020	2019
UpRi external costs	$ 45,511	$ 18,689	$ 9,461
XMT-1592 external costs	9,126	7,180	—
XMT-1522 external costs	—	—	1,936
Preclinical and discovery costs	28,464	9,883	16,980
Internal research and development costs	48,912	31,284	26,663
Total research and development costs	$ 132,013	$ 67,036	$ 55,040

The successful development of our product candidates is highly uncertain. As such, we cannot reasonably estimate or know the nature, timing and estimated costs of the efforts that will be necessary to complete the remainder of the development of our product candidates. We are also unable to predict when, if ever, we will generate revenue from commercialization and sale of any of our product candidates that obtain regulatory approval. This is due to the numerous risks and uncertainties associated with developing drugs, including the uncertainty of:

- successful completion of preclinical studies and IND-enabling studies;
- successful enrollment in and completion of clinical trials;
- receipt of marketing approvals from applicable regulatory authorities;
- establishing commercial manufacturing capabilities or making arrangements with third-party manufacturers;
- obtaining and maintaining patent and trade secret protection and regulatory exclusivity for our product candidates;
- commercializing the product candidates, if and when approved, whether alone or in collaboration with others;
- continued acceptable safety profile of the drugs following approval; and
- our ability to overcome existing and emerging competitive threats to the successful commercialization of our products.

A change in the outcome of any of these variables with respect to the development, manufacture or commercialization of any of our product candidates would significantly change the costs, timing and viability associated with the development of that product candidate.

General and Administrative Expenses

General and administrative expenses consist primarily of salaries and other employee-related costs, including stock-based compensation, for personnel in executive, finance, accounting, business development, legal, information technology and human resources functions. Other significant costs include facility costs not otherwise included in research and development expenses, legal fees relating to patent and corporate matters, and fees for accounting and consulting services.

We anticipate that our general and administrative expenses will increase in the future to support continued research and development activities, including increased costs related to the hiring of additional personnel, fees to outside consultants and patent costs, among other expenses.

Other Income (Expense)

Other income (expense) consists primarily of interest income earned on cash equivalents and marketable securities. Interest expense is related to borrowings under the credit facilities. These borrowings bear a floating per annum rate interest, as well as a final payment of either 4.25% on the Prior Credit Facility or 5.5% on the New Credit Facility, as defined below, of the amounts drawn, that is being recorded as interest expense over the term through the maturity date using the effective-interest method. Also included in interest expense is the amortization of the deferred financing costs and the accretion of debt discount relating to the credit facilities.

Results of Operations

Comparison of Years Ended December 31, 2021 and 2020

The following table summarizes our results of operations for the years ended December 31, 2021 and 2020, together with the changes in those items:

	Year Ended December 31,		
(in thousands)	**2021**	**2020**	**Dollar Change**
Collaboration revenue	$ 43	$ 828	$ (785)
Operating expenses:			
Research and development	132,013	67,036	64,977
General and administrative	36,888	21,902	14,986
Total operating expenses	168,901	88,938	79,963
Other income (expense):			
Interest income	65	424	(359)
Interest expense	(1,267)	(359)	(908)
Total other income (expense), net	(1,202)	65	(1,267)
Net loss	$ (170,060)	$ (88,045)	$ (82,015)

Collaboration Revenue

Collaboration revenue was less than $0.1 million during the year ended December 31, 2021, compared to $0.8 million during the year ended December 31, 2020. During the year ended December 31, 2020, we recognized $0.8 million of revenue as a result of the completion of research services associated with a target included in the Merck KGaA Agreement.

Research and Development Expense

Research and development expense was $132.0 million for the year ended December 31, 2021, compared to $67.0 million for the year ended December 31, 2020. The overall increase of $65.0 million was primarily attributable to the following:

- an increase of $28.7 million related to manufacturing and clinical development activities for UpRi;
- an increase of $14.7 million related to preclinical and discovery stage programs including XMT-1660 and XMT-2056;
- an increase of $10.8 million related to employee compensation (excluding stock-based compensation), primarily due to an increase in headcount supporting the growth of our research and development activities;
- an increase of $5.3 million related to manufacturing and clinical development activities for XMT-1592; and
- an increase of $0.8 million related to other research services and supplies costs.

These increased costs were partially offset by the following:

- a decrease of $1.3 million related to the favorable resolution of an outstanding payable balance.

Stock-based compensation expense included in research and development expenses increased by $6.0 million primarily as a result of increased headcount.

We expect our research and development expenses to increase as we continue our clinical development of UpRi and XMT-1592 and continue to advance our preclinical product candidate pipeline and invest in improvements in our ADC technologies.

General and Administrative Expense

General and administrative expense increased by $15.0 million from $21.9 million for the year ended December 31, 2020 to $36.9 million for the year ended December 31, 2021. The increase in general and administrative expense was primarily attributable to an increase of $4.1 million related to employee compensation (excluding stock-based compensation), related to

an increase in headcount, and an increase of $5.7 million related to consulting and professional fees. Stock-based compensation increased by $5.1 million also primarily as a result of increased headcount.

We expect that our general and administrative expense will increase in future periods as we expand our operations. These increases will likely include legal, auditing fees, additional insurance premiums and general compliance and consulting expenses.

Total Other Income (Expense), Net

Total other expense, net, was $1.2 million for the year ended December 31, 2021 and total other income, net, was $0.1 million for the year ended December 31, 2020. In each period, other expense consisted primarily of interest on our borrowings under the credit facilities, offset by interest income on cash equivalents and short-term marketable securities. For the year ended December 31, 2021, other expense included a $0.4 million loss on extinguishment related to the repayment of the Prior Credit Facility, as defined below.

Liquidity and Capital Resources

Sources of Liquidity

We have financed our operations primarily with the proceeds from our initial public offering, our follow-on public offerings in 2019 and 2020, the use of our ATM equity offering program and our strategic partnerships. In July 2018 we established an ATM, or the 2018 ATM, pursuant to which we were able to offer and sell up to $75.0 million of our common stock from time to time at prevailing market prices. During the year ended December 31, 2020, we sold approximately 10.9 million shares of common stock and received net proceeds of $63.0 million under our 2018 ATM. In addition, in June 2020, we sold 9.2 million shares of common stock in a follow-on public offering and received net proceeds of approximately $164.0 million.

In May 2020, we terminated the 2018 ATM and established a new ATM, or the 2020 ATM, pursuant to which we are able to sell up to $100.0 million of our common stock from time to time at prevailing market prices. During the year ended December 31, 2021, we sold approximately 4.0 million shares of common stock under the 2020 ATM for net proceeds of $43.1 million. As of December 31, 2021, we had $55.9 million of availability under the 2020 ATM. Subsequent to December 31, 2021 and through February 25, 2022, we sold 9.5 million shares of common stock resulting in net proceeds of $45.6 million under the 2020 ATM offerings. Approximately $9.4 million remains unsold and available for sale under the 2020 ATM.

On May 8, 2019, we entered into a term loan agreement with Silicon Valley Bank, or SVB, which was subsequently amended on June 29, 2019, August 28, 2020, and August 27, 2021, as amended, the Prior Credit Facility. Pursuant to the Prior Credit Facility we were permitted, subject to certain conditions, to borrow term loans in an aggregate amount of up to $30.0 million, of which $5.2 million were funded upon execution of the 2020 amendment to the Prior Credit Facility.

On October 29, 2021, we entered into a Loan and Security Agreement, or the New Credit Facility, with Oxford Finance LLC as the collateral agent and a lender, and SVB as a lender, together the Lenders, which was further amended on February 17, 2022. The New Credit Facility provides in aggregate up to $100 million, which includes $60 million available immediately, $20 million in one tranche that is subject to meeting certain development milestones, and an additional tranche of $20 million, which is subject to conditional approval from the Lenders. Upon the closing date, we drew $25 million, of which $5.5 million was used to repay in full the existing balance and satisfy our existing obligations to SVB under the Prior Credit Facility. The New Credit Facility is secured by substantially all of our personal property owned or later acquired, excluding intellectual property (but including the right to payments and proceeds from intellectual property), and a negative pledge on intellectual property, which ensures that the Lender’s rights to repayment would be senior to the rights of the holders of our common stock in the event of liquidation. Upon entering into the New Credit Facility, we terminated all commitments by SVB to extend further credit under the Prior Credit Facility and all guarantees and security interests granted by us to SVB under the Prior Credit Facility.

As of December 31, 2021, we had cash and cash equivalents of $177.9 million. In addition to our existing cash and cash equivalents, we are eligible to earn milestone and other payments under our collaboration agreements with Janssen, Merck KGaA and Asana. Our ability to earn the milestone payments and the timing of earning these amounts are dependent upon the timing and outcome of our development, regulatory and commercial activities and, as such, are uncertain at this time.

Cash Flows

The following table provides information regarding our cash flows for the years ended December 31, 2021, 2020 and 2019:

	Year Ended December 31,		
(in thousands)	**2021**	**2020**	**2019**
Net cash used in operating activities	$ (139,988)	$ (74,696)	$ (67,744)
Net cash provided by (used in) investing activities	(648)	37,027	(27,293)
Net cash provided by financing activities	63,646	230,412	97,704
Increase (decrease) in cash, cash equivalents and restricted cash	$ (76,990)	$ 192,743	$ 2,667

Net Cash Used in Operating Activities

Net cash used in operating activities was $140.0 million for the year ended December 31, 2021 and primarily consisted of a net loss of $170.1 million adjusted for changes in our net working capital and other non-cash items including stock-based compensation of $18.4 million and depreciation of $0.9 million. Net cash used in operating activities was $74.7 million for the year ended December 31, 2020 and primarily consisted of a net loss of $88.0 million adjusted for non-cash items including stock-based compensation of $7.2 million and depreciation of $1.0 million.

Net Cash Provided by (Used in) Investing Activities

Net cash used in investing activities was $0.6 million during the year ended December 31, 2021 compared to net cash provided by investing activities of $37.0 million during the year ended December 31, 2020. Net cash used in investing activities for the year ended December 31, 2021 consisted primarily of the purchase of property and equipment. Net cash provided by investing activities for the year ended December 31, 2020 consisted primarily of maturities of marketable securities.

Net Cash Provided by Financing Activities

Net cash provided by financing activities was $63.6 million during the year ended December 31, 2021 compared to net cash provided by financing activities of $230.4 million during the year ended December 31, 2020. During the year ended December 31, 2021 cash provided by financing activities consisted primarily of the proceeds from the use of the 2020 ATM of $43.1 million and issuance of debt, net of issuance costs, of $24.0 million under the New Credit Facility, as well as proceeds from exercise of stock options of $1.8 million, partially offset by repayment of debt of $5.5 million to repay the Prior Credit Facility. During the year ended December 31, 2020, cash provided by financing activities consisted primarily of $164.0 million related to the follow-on public offering and the proceeds from the use of the 2018 ATM of $63.0 million, as well as proceeds from exercise of stock options of $3.1 million.

Funding Requirements

We expect our cash expenditures to increase in connection with our ongoing activities, particularly as we continue the research and development of, initiate clinical trials of, and seek marketing approval for our product candidates. In addition, if we obtain marketing approval for any of our product candidates, we expect to incur significant commercialization expenses related to drug sales, marketing, manufacturing and distribution to the extent that such sales, marketing and distribution are not the responsibility of potential collaborators.

As of December 31, 2021 we had cash and cash equivalents of $177.9 million and, subsequently, we received a $40 million upfront payment under the Janssen Collaboration and $45.6 million of net proceeds received from sales of our common stock under our 2020 ATM. In addition, we currently have the option to borrow $35 million under the New Credit Facility. Taken together, we believe that our current cash and cash equivalents plus the available borrowings under the New Credit Facility will be sufficient to fund our current operating plan commitments into the second half of 2023. Our forecast of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement and involves risks and uncertainties, and actual results could vary as a result of a number of factors. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect. Our future capital requirements will depend on many factors, including:

- the scope, progress, results and costs of drug discovery, preclinical development, laboratory testing and clinical trials for our product candidates;

- the scope, prioritization and number of our research and development programs;
- the costs, timing and outcome of regulatory review of our product candidates;
- our ability to establish and maintain collaborations on favorable terms, if at all;
- the achievement of milestones or occurrence of other developments that trigger payments under any collaboration agreements we obtain;
- the extent to which we are obligated to reimburse, or entitled to reimbursement of, clinical trial costs under future collaboration agreements, if any;
- the costs of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending intellectual property-related claims;
- the extent to which we acquire or in-license other product candidates and technologies;
- the costs of securing manufacturing arrangements for clinical and commercial production; and
- the costs of establishing or contracting for sales and marketing capabilities if we obtain regulatory approvals to market our product candidates.

Identifying potential product candidates and conducting preclinical testing and clinical trials is a time-consuming, expensive and uncertain process that takes many years to complete, and we may never generate the necessary data or results required to obtain marketing approval and achieve drug sales. In addition, our product candidates, if approved, may not achieve commercial success. Our commercial revenues, if any, will be derived from sales of drugs that we do not expect to be commercially available for many years, if at all. Accordingly, we will need to continue to rely on additional financing to achieve our business objectives. Adequate additional financing may not be available to us on acceptable terms, or at all.

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of equity offerings, debt financings, strategic partnerships and licensing arrangements. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interests of our common stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our common stockholders. We currently have access to the New Credit Facility, as described above, along with funds to potentially be earned in connection with our agreements with Janssen, Merck KGaA and Asana BioSciences, if research and development activities are successful under those agreements. Future additional debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends.

If we raise funds through additional strategic partnerships or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or to grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our drug development or future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Contractual Obligations

The following table summarizes our significant contractual obligations as of payment due date by period at December 31, 2021:

(in thousands)	Total	Less than 1 Year	1 to 3 Years	3 to 5 Years	More than 5 years
Lease commitments(1)	$ 17,916	$ 4,064	$ 8,339	$ 5,513	$ —
Long-term debt obligations(2)	34,416	2,155	6,391	25,870	—
Total	$ 52,332	$ 6,219	$ 14,730	$ 31,383	$ —

(1) Represents future minimum lease payments under our non-cancelable operating and finance leases, which expire through February 2024. The minimum lease payments above do not include any related common area maintenance charges or real estate taxes.

(2) Represents future debt principal plus interest and final payments under the term loan under the New Credit Facility, which is payable in full on October 1, 2026. Refer to Note 7, *Debt*, in the Notes to Consolidated Financial Statements.

We enter into agreements in the normal course of business with third parties to assist us with preclinical, clinical, manufacturing, and other products and services for operating purpose. Certain of these agreements include termination rights subject to termination fees or wind down costs. Under such agreements, we are contractually obligated to make certain payments to the parties with whom we contract upon termination, primarily to reimburse them for their unrecoverable outlays incurred prior to cancellation and for wind-down activities. The exact amounts of such obligations are dependent on the timing of termination and the exact terms of the relevant agreement and cannot be reasonably estimated. At December 31, 2021, we had cancellable open purchase orders of $138.7 million in total under agreements for preclinical, clinical, manufacturing, and other products and services for operating purposes. These amounts represent only our estimate of those items for which we had a contractual commitment to pay at December 31, 2021, assuming we would not cancel these agreements. The actual amounts we expect to pay in the future to the third parties under such agreements may differ from the cancellable open purchase order amounts.

In July 2015, we entered into a license agreement with Recepta Biopharma S.A., or Recepta, as amended, for the NaPi2b antibody. We refer to this as the Recepta License. Under the Recepta License, we paid Recepta an upfront payment of $1.0 million and are obligated to pay Recepta up to $65.5 million in development, regulatory and commercial milestones and tiered royalties in the low-single digit percentages on net sales of products outside of Brazil until the expiration of the royalty term. Upon the expiration of each royalty term in each country for each applicable product, the exclusive licenses granted to each party under the Recepta License will become fully-paid up and royalty-free. We have incurred $4.0 million and paid $2.8 million in development milestone payments to date under the Recepta License.

In January 2019, we entered into a commercial license agreement with Synaffix B.V., or Synaffix, which we amended and restated in November 2021 to expand our relationship with Synaffix. We refer to the amended and restated agreement as the Synaffix License. Under the Synaffix License, we have the right to develop, manufacture and commercialize ADCs directed to targets using Synaffix's proprietary site-specific conjugation technology for up to twelve targets. Through December 31, 2021, we have licensed two targets from Synaffix in connection with our development of XMT-1592 and XMT-1660, for which we have paid $1.5 million in license fees, and $0.8 million in milestone payments. We are required to make milestone payments to Synaffix of up to an aggregate of $28.0 million in development and regulatory milestones and up to $20.0 million in one-time sales milestones based on the achievement of annual sales objectives for each of these two targets. Additionally, we paid upfront fees of $2.5 million at the time of amending and restating the Synaffix License in November 2021, which may be applied to reservation and license fees associated with our selection of the next three targets. Upon licensing any future targets, we will be obligated to pay in the range of $48.0 million to $117.0 million for issuance, development, regulatory and one-time sales milestones. We further amended the Synaffix License in February 2022 in connection with the Janssen Collaboration and agreed to pay Synaffix an additional fee of $1.5 million which may be applied to future reservation and license fees, as well as certain portions of potential future development milestones.

Upon commencement of commercial sales of any ADC product directed to a licensed target, if any, we are required to pay to Synaffix tiered royalties in the low-single digit percentages on net sales of the respective products. The Synaffix License remains in effect on a country-by-country and licensed product-by-licensed product basis until the expiration of the last-to-expire valid claim in a patent licensed under the Synaffix License covering such product in such country. Upon the expiration of the Synaffix License for each licensed product in each country, the licenses granted to us for such product in such country will become fully paid-up and perpetual. We may terminate the Synaffix License in its entirety or on a licensed product-by-licensed product basis at any time. Either party may terminate the Synaffix License, subject to a specified notice and cure period, for a breach by the other party of a material provision of the agreement or upon an insolvency-related event experienced by the other party.

Critical Accounting Policies and Significant Judgements and Estimates

Our management's discussion and analysis of our financial condition and results of operations are based on our financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements requires us to make judgments and estimates that affect the reported amounts of assets, liabilities, revenues, and expenses and the disclosure of contingent assets and liabilities in our financial statements. We base our estimates on historical experience, known trends and events, and various other factors that are believed to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions. On an ongoing basis, we evaluate our judgments and estimates in light of changes in circumstances, facts and experience. The effects of material revisions in estimates, if any, will be reflected in the financial statements prospectively from the date of change in estimates.

We believe that our most critical accounting policies are those relating to revenue recognition and accrued research and development expenses as discussed in the Notes to Consolidated Financial Statements included in this Annual Report on Form 10-K.

Revenue Recognition

We enter into collaboration agreements which are within the scope of Accounting Standards Update 2014-09, *Revenue from Contracts with Customers*, or Topic 606, under which we license rights to our technology and certain of our product candidates and perform research and development services for third parties. The terms of these arrangements typically include payment of one or more of the following: non-refundable, up-front fees; reimbursement of research and development costs; development, regulatory and commercial milestone payments; and royalties on net sales of licensed products.

Under Topic 606, an entity recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services. To determine the appropriate amount of revenue to be recognized for arrangements determined to be within the scope of Topic 606, we perform the following five steps: (i) identification of contract(s) with a customer; (ii) determination of whether the promised goods or services are performance obligations; (iii) measurement of the transaction price, including the constraint on variable consideration; (iv) allocation of the transaction price to the performance obligations; and (v) recognition of revenue when (or as) we satisfy each performance obligation. We only apply the five-step model to contracts when it is probable that the entity will collect consideration it is entitled to in exchange for the goods or services it transfers to the customer.

The promised good or services in our arrangements typically consist of license rights to our intellectual property and research and development services. We also have optional additional items in contracts, which are considered marketing offers and are accounted for as separate contracts with the customer if such option is elected by the customer, unless the option provides a material right which would not be provided without entering into the contract. Performance obligations are promised goods or services in a contract to transfer a distinct good or service to the customer. Promised goods or services are considered distinct when (i) the customer can benefit from the good or service on its own or together with other readily available resources or (ii) the promised good or service is separately identifiable from other promises in the contract. In assessing whether promised goods or services are distinct, we consider factors such as the stage of development of the underlying intellectual property, the capabilities of the customer to develop the intellectual property on their own or whether the required expertise is readily available.

We estimate the transaction price based on the amount expected to be received for transferring the promised goods or services in the contract. The consideration may include both fixed consideration and variable consideration. At the inception of each arrangement that includes variable consideration and at each reporting period, we evaluate the amount of potential payment and the likelihood that the payments will be received. We utilize either the most likely amount method or expected amount method to estimate the amount expected to be received based on which method better predicts the amount expected to be received. If it is probable that a significant revenue reversal would not occur, the variable consideration is included in the transaction price.

Our contracts often include development and regulatory milestone payments. At contract inception and at each reporting period, we evaluate whether the milestones are considered probable of being reached and estimate the amount to be included in the transaction price using the most likely amount method. If it is not probable that a significant revenue reversal would not occur, the associated milestone value is included in the transaction price. Milestone payments that are not within our control or the licensee's control, such as regulatory approvals, are not included in the transaction price. At the end of each subsequent reporting period, we re-evaluate the probability of achievement of such development milestones and any related constraint, and if necessary, adjust our estimate of the overall transaction price.

For arrangements that include sales-based royalties, including milestone payments based on the level of sales, and the license is deemed to be the predominant item to which the royalties relate, we recognize revenue at the later of (i) when the related sales occur, or (ii) when the performance obligation to which some or all of the royalty has been allocated has been satisfied (or partially satisfied).

We allocate the transaction price based on the estimated standalone selling price of the underlying performance obligations or in the case of certain variable consideration to one or more performance obligations. We must develop assumptions that require judgment to determine the standalone selling price for each performance obligation identified in the contract. We utilize key assumptions to determine the standalone selling price, which may include other comparable transactions, pricing considered in negotiating the transaction and the estimated costs to complete the respective performance obligation. Certain variable consideration is allocated specifically to one or more performance obligations in a contract when the terms of the variable

consideration relate to the satisfaction of the performance obligation and the resulting amounts allocated to each performance obligation are consistent with the amounts we would expect to receive for each performance obligation.

For performance obligations consisting of licenses and other promises, we utilize judgment to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or at a point in time and, if over time, the appropriate method of measuring progress for purposes of recognizing revenue from non-refundable, up-front fees. We evaluate the measure of progress each reporting period and, if necessary, adjust the measure of performance and related revenue recognition. If the license to our intellectual property is determined to be distinct from the other performance obligations identified in the arrangement, we will recognize revenue from non-refundable, up-front fees allocated to the license when the license is transferred to the customer and the customer is able to use and benefit from the license.

Collaborative Arrangements

We record the elements of our collaboration agreements that represent joint operating activities in accordance with ASC Topic 808, *Collaborative Arrangements*. Accordingly, the elements of the collaboration agreements that represent activities in which both parties are active participants and to which both parties are exposed to the significant risks and rewards that are dependent on the commercial success of the activities, are recorded as collaborative arrangements. We consider the guidance in Topic 606 in determining the appropriate treatment for the transactions between us and our collaborative partners and the transactions between us and third parties. Generally, the classification of transactions under the collaborative arrangements is determined based on the nature and contractual terms of the arrangement along with the nature of the operations of the participants. To the extent revenue is generated from a collaboration, we will recognize our share of the net sales on a gross basis if we are deemed to be the principal in the transactions with customers, or on a net basis if we are instead deemed to be the agent in the transactions with customers, consistent with the guidance in Topic 606.

Accrued Research and Development Expenses

As part of the process of preparing our financial statements, we are required to estimate our accrued expenses as of each balance sheet date. This process involves reviewing open contracts and purchase orders, communicating with our 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 the actual cost. The majority of our service providers invoice us monthly in arrears for services performed or when contractual milestones are met. 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. The significant estimates in our accrued research and development expenses include the costs incurred for services performed by our vendors in connection with research and development activities for which we have not yet been invoiced.

We record our expenses related to research and development activities based upon our estimates of the services received and efforts expended pursuant to quotes and contracts with vendors that conduct research and development 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. There may be instances in which payments made to our vendors will exceed the level of services provided and result in a prepayment of the research and development expense. In accruing service fees, we estimate the time period over which services will be performed, enrollment of subjects, number of sites activated 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 accrued or prepaid expense balance accordingly. Although we do not expect our estimates to be materially different from amounts actually incurred, if our estimates of the status and timing of services performed differ from the actual status and timing of services performed, we may report amounts that are too high or too low in any particular period. To date, there have been no material differences from our estimates to the amounts actually incurred. Significant judgement is involved in making the above estimates.

Recent accounting pronouncements

See Note 2, *Recently Adopted Accounting Pronouncements*, in the Notes to Consolidated Financial Statements for a description of recent accounting pronouncements applicable to our business.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Risks

We are exposed to market risk related to changes in interest rates. As of December 31, 2021, we had cash and cash equivalents of $177.9 million, primarily held in money market mutual funds consisting of U.S. government-backed securities. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of U.S. interest rates, particularly because our investments, including cash equivalents and marketable securities are invested in U.S. Treasury obligations, commercial paper and corporate bonds. However, we believe that due to the short-term duration of our investment portfolio and low-risk profile of our investments, an immediate 100 basis points change in interest rates would not have a material effect on the fair market value of our investments portfolio.

The interest rate on our New Credit Facility is sensitive to changes in interest rates. Interest accrues on borrowings under the credit facility at a floating rate equal to the greater of (i) 8.50% and (ii) the prime rate plus 5.25%. We do not currently engage in any hedging activities against changes in interest rates. As of December 31, 2021, there was $25.0 million outstanding under the New Credit Facility and a potential change in the associated interest rates would be immaterial to the results of our operations.

Foreign Currency Exchange Rate Risks

We are currently not exposed to market risk related to changes in foreign currency exchange rates, but we may contract with vendors that are located in Asia and Europe and may be subject to fluctuations in foreign currency rates at that time.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Mersana Therapeutics, Inc.

Index to Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Mersana Therapeutics, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Mersana Therapeutics, Inc. (the Company) as of December 31, 2021 and 2020, the related consolidated statements of operations and comprehensive loss, and stockholders' equity and cash flows for each of the three years in the period ended December 31, 2021, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2021 and 2020, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2021, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2021, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 28, 2022 expressed an unqualified opinion thereon.

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 the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the 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) relate 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 consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the account or disclosure to which it relates.

Accrued & Prepaid Clinical Expenses

Description of the Matter

As summarized in Note 6 to the consolidated financial statements, the Company's accrual for clinical expenses totaled $7.9 million as of December 31, 2021. In addition, the Company's Prepaid Expenses and Other Current Assets and Other Assets accounts totaled $13.3 million, which included amounts that were paid in advance of services pursuant to clinical trials as of December 31, 2021. As discussed in Note 2 to the consolidated financial statements, the Company is required to estimate clinical costs incurred and related accruals or remaining prepaid expenses based on certain information, including actual costs incurred or level of effort expended, as provided by its vendors. Payments for such activities are based on the terms of the individual arrangements, which may differ from the pattern of costs incurred.

Auditing the Company's accrued and prepaid clinical expenses was complex and judgmental, as the amounts are based on various estimates from third-party vendors, as well as other inputs estimated by members of management, such as, actual costs incurred but not yet billed, estimated project timelines, and the costs associated with these services. Furthermore, due to the duration of the Company's ongoing research and development activities and the timing of invoicing received from third parties, the actual amounts incurred are not typically known by the date the financial statements are issued.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design, and tested the operating effectiveness of the controls over the Company's process for recording accrued and prepaid clinical expenses. These procedures included controls over management's review of inputs used, as well as the completeness and accuracy of the underlying data, in estimating the accrual and prepaid.

To test the accrued and prepaid clinical expenses, our audit procedures included, among others, testing the accuracy and completeness of the underlying data used in the estimates and evaluating the significant assumptions noted above that are used by management to estimate the amounts recorded. We corroborated the progress of research and development activities through discussion with the Company's research and development personnel that oversee the research and development projects. We also inspected the Company's contracts with third parties and any pending change orders to assess the impact on amounts recorded. Additionally, we reviewed information received by the Company directly from certain sites and other third parties, which included third parties' estimates of costs incurred to date. We also performed analytical procedures over fluctuations in accrued and prepaid clinical expenses by vendor, study, or other significant work order throughout the period subject to audit and inspected subsequent invoices received from third parties to assess the impact to the accrued and prepaid balances.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2013.
Boston, Massachusetts
February 28, 2022

Mersana Therapeutics, Inc.

Consolidated Balance Sheets

(in thousands, except share and per share data)

	December 31, 2021	December 31, 2020
Assets		
Current assets:		
Cash and cash equivalents	$ 177,947	$ 255,094
Prepaid expenses and other current assets	10,951	3,486
Total current assets	188,898	258,580
Property and equipment, net	1,968	1,730
Operating lease right-of-use assets	12,889	10,936
Other assets	2,356	2,153
Total assets	$ 206,111	$ 273,399
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 12,321	$ 8,340
Accrued expenses	28,716	16,146
Deferred revenue	3,944	3,987
Operating lease liabilities	2,303	1,437
Other liabilities	239	93
Total current liabilities	47,523	30,003
Operating lease liabilities	11,247	10,158
Long-term debt, net	24,626	4,977
Other liabilities	974	174
Total liabilities	84,370	45,312
Commitments (Note 13)		
Stockholders' equity		
Preferred stock, $0.0001 par value; 25,000,000 shares authorized; 0 shares issued and outstanding at December 31, 2021 and December 31, 2020, respectively	—	—
Common stock, $0.0001 par value; 175,000,000 shares authorized; 73,709,056 and 68,841,288 shares issued and outstanding at December 31, 2021 and December 31, 2020, respectively	7	7
Additional paid-in capital	572,213	508,499
Accumulated deficit	(450,479)	(280,419)
Total stockholders' equity	121,741	228,087
Total liabilities and stockholders' equity	$ 206,111	$ 273,399

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

Mersana Therapeutics, Inc.

Consolidated Statements of Operations and Comprehensive Loss

(in thousands, except share and per share data)

	Year ended December 31,		
	2021	2020	2019
Collaboration revenue	$ 43	$ 828	$ 42,123
Operating expenses:			
Research and development	132,013	67,036	55,040
General and administrative	36,888	21,902	17,283
Total operating expenses	168,901	88,938	72,323
Other income (expense):			
Interest income	65	424	2,226
Interest expense	(1,267)	(359)	(234)
Total other income (expense), net	(1,202)	65	1,992
Net loss	$ (170,060)	$ (88,045)	$ (28,208)
Other comprehensive loss:			
Unrealized gain (loss) on marketable securities	—	(25)	33
Comprehensive loss	$ (170,060)	$ (88,070)	$ (28,175)
Net loss attributable to common stockholders — basic and diluted	$ (170,060)	$ (88,045)	$ (28,208)
Net loss per share attributable to common stockholders — basic and diluted	$ (2.41)	$ (1.43)	$ (0.65)
Weighted-average number of shares of common stock used in net loss per share attributable to common stockholders — basic and diluted	70,580,949	61,485,205	43,492,113

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

Mersana Therapeutics, Inc.

Consolidated Statements of Stockholders' Equity

(in thousands, except share and per share data)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Stockholders' Equity
	Shares	Amount				
Balance at December 31, 2018	23,234,472	$ 3	$ 172,966	$ (8)	$ (164,166)	$ 8,795
Issuance of common stock under public offering, net of issuance costs of $5,587	24,437,500	2	92,160	—	—	92,162
Exercise of stock options and warrants	150,978	—	175	—	—	175
Purchase of common stock under ESPP	140,073	—	489	—	—	489
Retirement of common stock in exchange for common stock warrant	(2,575,000)	—	(8,986)	—	—	(8,986)
Issuance of common stock warrant in exchange for retirement of common stock	—	—	8,986	—	—	8,986
Stock-based compensation expense	—	—	4,872	—	—	4,872
Other comprehensive income	—	—	—	33	—	33
Net loss	—	—	—	—	(28,208)	(28,208)
Balance at December 31, 2019	45,388,023	$ 5	$ 270,662	$ 25	$ (192,374)	$ 78,318
Issuance of common stock from at-the-market transactions, net of issuance costs of $2,176	10,900,599	1	62,976	—	—	62,977
Issuance of common stock under public offering, net of issuance costs of $10,809	9,200,000	1	163,990	—	—	163,991
Exercise of common stock warrant in exchange for common stock	2,574,971	—	—	—	—	—
Exercise of stock options	697,428	—	3,138	—	—	3,138
Purchase of common stock under ESPP	80,267	—	561	—	—	561
Stock-based compensation expense	—	—	7,172	—	—	7,172
Other comprehensive loss	—	—	—	(25)	—	(25)
Net loss	—	—	—	—	(88,045)	(88,045)
Balance at December 31, 2020	68,841,288	$ 7	$ 508,499	$ —	$ (280,419)	$ 228,087
Issuance of common stock from at-the-market transactions, net of issuance costs of $988	3,961,074	—	43,087	—	—	43,087
Exercise of stock options	421,381	—	1,837	—	—	1,837
Vesting of restricted stock units, net of employee tax obligation	407,060	—	(259)	—	—	(259)
Purchase of common stock under ESPP	78,253	—	640	—	—	640
Stock-based compensation expense	—	—	18,409	—	—	18,409
Net loss	—	—	—	—	(170,060)	(170,060)
Balance at December 31, 2021	73,709,056	$ 7	$ 572,213	$ —	$ (450,479)	$ 121,741

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

Mersana Therapeutics, Inc.

Consolidated Statements of Cash Flows

(in thousands)

	Year ended December 31,		
	2021	**2020**	**2019**
Cash flows from operating activities			
Net loss	$ (170,060)	$ (88,045)	$ (28,208)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation	855	1,010	1,245
Net amortization of premiums and discounts on investments	—	(86)	(222)
Stock-based compensation	18,409	7,172	4,872
Other non-cash items	723	148	103
Changes in operating assets and liabilities:			
Accounts receivable	—	—	459
Prepaid expenses and other current assets	(2,734)	(1,950)	2,179
Other assets	(718)	(700)	—
Accounts payable	483	942	(3,110)
Accrued expenses	12,570	7,280	(3,569)
Operating lease assets	1,829	1,642	1,771
Operating lease liabilities	(1,827)	(1,281)	(1,883)
Deferred revenue	(43)	(828)	(41,381)
Other liabilities	525	—	—
Net cash used in operating activities	(139,988)	(74,696)	(67,744)
Cash flows from investing activities			
Maturities of marketable securities	—	37,500	27,000
Purchase of marketable securities	—	—	(53,688)
Purchase of property and equipment	(648)	(473)	(605)
Net cash (used in) provided by investing activities	(648)	37,027	(27,293)
Cash flows from financing activities			
Net proceeds from public offering of common stock	—	163,990	92,162
Net proceeds from use of ATM	43,087	63,036	—
Proceeds from exercise of stock options	1,837	3,138	175
Proceeds from purchases of common stock under ESPP	640	561	489
Payment of employee tax obligations related to vesting of restricted stock units	(259)	—	—
Proceeds from issuance of debt, net of issuance costs	24,042	(197)	4,965
Repayment of debt	(5,486)	—	—
Payments under finance lease obligations	(215)	(116)	(87)
Net cash provided by financing activities	63,646	230,412	97,704
Increase (decrease) in cash, cash equivalents and restricted cash	(76,990)	192,743	2,667
Cash, cash equivalents and restricted cash, beginning of period	255,415	62,672	60,005
Cash, cash equivalents and restricted cash, end of period	$ 178,425	$ 255,415	$ 62,672
Supplemental disclosures of non-cash activities:			
Fair value of common stock retired in exchange for issuance of common stock warrant	$ —	$ —	$ 8,986
Purchases of property and equipment in accounts payable and accrued expenses	$ —	$ 102	$ —
Debt financing costs in accrued expenses	$ —	$ —	$ 180
Cash paid for interest	$ 429	$ 234	$ 132
Right-of-use assets obtained in exchange for operating lease liabilities	$ 3,783	$ 9,980	$ 4,369
Right-of-use assets obtained in exchange for financing lease liabilities	$ 609	$ —	$ 429

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

Mersana Therapeutics, Inc.
Notes to consolidated financial statements

1. Nature of Business and Basis of Presentation

Mersana Therapeutics, Inc. is a clinical stage biopharmaceutical company focused on developing antibody drug conjugates (ADCs) that offer a clinically meaningful benefit for cancer patients with significant unmet need. The Company has leveraged over 20 years of industry learning in the ADC field to develop proprietary and differentiated technology platforms that enable it to design ADCs to have improved efficacy, safety and tolerability relative to existing ADC therapies. The Company's innovative platforms, which include Dolaflexin and Dolasynthen, each delivering its DolaLock payload, as well as Immunosynthen, delivering the novel stimulator of interferon genes (STING) agonist ImmunoLock payload, together provide an efficient product engine that has enabled a robust discovery pipeline for the Company and its partners. The Company's clinical candidates include upifitamab rilsodotin (UpRi) and XMT-1592. The Company's early stage programs include XMT-1660, a Dolasynthen ADC targeting B7-H4, as well as XMT-2056, a STING agonist ADC developed using the Company's Immunosynthen platform and targeting a novel epitope of human epidermal growth factor receptor 2 (HER2). The Company also has two earlier stage preclinical candidates, XMT-2068 and XMT-2175, both of which leverage the Company's Immunosynthen platform and target tumor-associated antigens.

The Company's lead product candidate, UpRi, is a first-in-class Dolaflexin ADC targeting NaPi2b, an antigen broadly expressed in ovarian cancer and other cancers. The Company is currently evaluating UpRi in platinum-resistant ovarian cancer in a single-arm registrational trial, referred to as UPLIFT, for which the Company expects to complete enrollment in the third quarter of 2022. The Company is also conducting a Phase 1/2 umbrella combination trial, referred to as UPGRADE. The first combination the Company is exploring is the combination of UpRi with carboplatin, a standard platinum chemotherapy broadly used in the treatment of platinum-sensitive ovarian cancer. The Company may explore other combinations in the future. The Company expects to report interim data from UPGRADE in the second half of 2022. In the second quarter of 2022, the Company expects to initiate enrollment in a randomized placebo-controlled Phase 3 trial, referred to as UP-NEXT, to evaluate UpRi as single agent maintenance treatment in patients with recurrent platinum-sensitive ovarian cancer that have high NaPi2b expression.

The Company's second clinical candidate, XMT-1592, is a NaPi2b-targeted ADC leveraging the Dolasynthen platform. The Company is conducting a Phase 1 dose exploration trial in patients with ovarian cancer and non-small cell lung cancer, or NSCLC, which it expects to complete in the second half of 2022.

The Company is subject to risks common to companies in the biotechnology industry, including but not limited to, the need for additional capital, risks of failure of preclinical studies and clinical trials, the need to obtain marketing approval and reimbursement for any drug product candidate that it may identify and develop, the need to successfully commercialize and gain market acceptance of its product candidates, dependence on key personnel, protection of proprietary technology, compliance with government regulations, development of technological innovations by competitors, reliance on third party manufacturers and the ability to transition from pilot-scale production to large-scale manufacturing of products.

The Company has incurred net losses since inception. The Company's net loss was $170,060, $88,045 and $28,208 for the years ended December 31, 2021, 2020 and 2019, respectively. The Company expects to continue to incur operating losses for at least the next several years. As of December 31, 2021, the Company had an accumulated deficit of $450,479. The future success of the Company is dependent on, among other factors, its ability to identify and develop its product candidates and ultimately upon its ability to attain profitable operations. The Company has devoted substantially all of its financial resources and efforts to research and development and general and administrative expense to support such research and development. Net losses and negative operating cash flows have had, and will continue to have, an adverse effect on the Company's stockholders' equity and working capital.

The Company believes that its currently available funds will be sufficient to fund the Company's operations through at least the next twelve months from the issuance of this Annual Report on Form 10-K. Management's belief with respect to its ability to fund operations is based on estimates that are subject to risks and uncertainties. If actual results are different from management's estimates, the Company may need to seek additional funding.

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States (U.S. GAAP) and the rules and regulations of the Securities and Exchange Commission (SEC).

Any reference in these notes to applicable guidance is meant to refer to the authoritative U.S. GAAP as found in the Accounting Standards Codification (ASC) and Accounting Standards Updates (ASU) of the Financial Accounting Standards Board (FASB). All dollar amounts, except per share data in the text and tables herein, are stated in thousands unless otherwise indicated.

2. Summary of Significant Accounting Policies

Principles of Consolidation

The accompanying consolidated financial statements include those of the Company and its wholly owned subsidiary, Mersana Securities Corp. All intercompany balances and transactions have been eliminated.

Use of Estimates

The preparation of the Company's consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, equity, revenue, expenses and related disclosure of contingent assets and liabilities at the date of the financial statements and reported amounts of revenue and expenses during the reporting period. On an ongoing basis, the Company's management evaluates its estimates which include, but are not limited to, management's judgments with respect to the identification of performance obligations and standalone selling prices of those performance obligations within its revenue arrangements, accrued preclinical, manufacturing and clinical expenses, valuation of stock-based awards and income taxes. Actual results could differ from those estimates.

Segment Information

Operating segments are defined as components of an enterprise about which separate discrete information is available for evaluation by the chief operating decision-maker, or decision making group, in deciding how to allocate resources and assess performance. The Company views its operations and manages its business as a single operating segment, which is the business of discovering and developing ADCs.

Research and Development

Research and development costs are expensed as incurred and include:

- employee-related expenses, including salaries, bonuses, benefits, travel and stock-based compensation expense;
- fees and expenses incurred under agreements with contract research organizations, investigative sites and other entities in connection with the conduct of preclinical studies, clinical trials and related services;
- the cost of acquiring, developing and manufacturing ADC product candidates, clinical trial materials and other research and development materials;
- fees and costs related to regulatory filings and activities;
- costs associated with collaboration agreements and license fees and milestone payments related to license agreements;
- costs associated with creating and obtaining approval for the NaPi2b companion or complementary diagnostic biomarker;
- facilities, depreciation and other expenses, which include direct and allocated expenses for rent, utilities, maintenance of facilities, insurance and other supplies; and
- other costs associated with clinical, preclinical, discovery and other research activities.

Costs for certain development activities, such as preclinical studies, clinical trials and manufacturing development activities, are recognized based on an evaluation of the progress to completion of specific tasks using data such as patient enrollment, clinical site activations, and information provided to the Company by its vendors on their actual costs incurred or level of effort

expended. Payments for these activities are based on the terms of the individual arrangements, which may differ from the pattern of costs incurred, and are reflected on the consolidated balance sheets as prepaid or accrued preclinical, manufacturing and clinical expenses.

Revenue Recognition

The Company enters into collaboration agreements which are within the scope of Accounting Standards Update (ASU) No. 2014-9, *Revenue from Contracts with Customers* (Topic 606), under which the Company licenses rights to its technology and certain of the Company's product candidates and performs research and development services for third parties. The terms of these arrangements typically include payment of one or more of the following: non-refundable, up-front fees; reimbursement of research and development costs; development, regulatory and commercial milestone payments; and royalties on net sales of licensed products.

Under Topic 606, an entity recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services. To determine the appropriate amount of revenue to be recognized for arrangements determined to be within the scope of Topic 606, the Company performs the following five steps: (i) identification of contract(s) with a customer; (ii) determination of whether the promised goods or services are performance obligations; (iii) measurement of the transaction price, including the constraint on variable consideration; (iv) allocation of the transaction price to the performance obligations; and (v) recognition of revenue when (or as) the Company satisfies each performance obligation. The Company only applies the five-step model to contracts when it is probable that the entity will collect consideration it is entitled to in exchange for the goods or services it transfers to the customer.

The promised good or services in the Company's arrangement typically consist of license rights to the Company's intellectual property and research and development services. The Company also has optional additional items in contracts, which are considered marketing offers and are accounted for as separate contracts with the customer if such option is elected by the customer, unless the option provides a material right which would not be provided without entering into the contract. Performance obligations are promised goods or services in a contract to transfer a distinct good or service to the customer. Promised goods or services are considered distinct when (i) the customer can benefit from the good or service on its own or together with other readily available resources or (ii) the promised good or service is separately identifiable from other promises in the contract. In assessing whether promised goods or services are distinct, the Company considers factors such as the stage of development of the underlying intellectual property, the capabilities of the customer to develop the intellectual property on their own or whether the required expertise is readily available.

The Company estimates the transaction price based on the amount expected to be received for transferring the promised goods or services in the contract. The consideration may include both fixed consideration and variable consideration. At the inception of each arrangement that includes variable consideration and at each reporting period, the Company evaluates the amount of potential payment and the likelihood that the payments will be received. The Company utilizes either the most likely amount method or expected value method to estimate the amount expected to be received based on which method better predicts the amount of consideration to which the Company will be entitled. If it is probable that a significant revenue reversal would not occur, the variable consideration is included in the transaction price. We assessed each of our revenue generating arrangements in order to determine whether a significant financing component exists and concluded that a significant financing component does not exist in any of our arrangements because: (a) the promised consideration approximates the cash selling price of the promised goods and services; and (b) timing of payment approximates the transfer of goods and services and performance is over a relatively short period of time within the context of the entire term of the contract.

The Company's contracts often include development and regulatory milestone payments. At contract inception and at each reporting period, the Company evaluates whether the milestones are considered probable of being reached and estimates the amount to be included in the transaction price using the most likely amount method. If it is probable that a significant revenue reversal would not occur, the associated milestone value is included in the transaction price. Milestone payments that are not within the Company's control or the licensee's control, such as regulatory approvals, are not included in the transaction price. At the end of each subsequent reporting period, the Company re-evaluates the probability of achievement of such development milestones and any related constraint, and if necessary, adjusts its estimate of the overall transaction price. Any such adjustments are recorded on a cumulative catch-up basis, which would affect license, collaboration and other revenues and earnings in the period of adjustment.

For arrangements that include sales-based royalties, including milestone payments based on the level of sales, and the license is deemed to be the predominant item to which the royalties relate, the Company recognizes revenue at the later of (i) when the related sales occur, or (ii) when the performance obligation to which some or all of the royalty has been allocated has been satisfied (or partially satisfied). To date, the Company has not recognized any royalty revenue resulting from any of the Company's collaboration arrangements.

The Company allocates the transaction price based on the estimated standalone selling price of the underlying performance obligations or in the case of certain variable consideration to one or more performance obligations. The Company must develop assumptions that require judgment to determine the standalone selling price for each performance obligation identified in the contract. The Company utilizes key assumptions to determine the standalone selling price, which may include other comparable transactions, pricing considered in negotiating the transaction and the estimated costs to complete the respective performance obligation. Certain variable consideration is allocated specifically to one or more performance obligations in a contract when the terms of the variable consideration relate to the satisfaction of the performance obligation and the resulting amounts allocated to each performance obligation are consistent with the amounts the Company would expect to receive for each performance obligation.

For performance obligations consisting of licenses and other promises, the Company utilizes judgment to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or at a point in time and, if over time, the appropriate method of measuring progress for purposes of recognizing revenue from non-refundable, up-front fees. The Company evaluates the measure of progress each reporting period and, if necessary, adjusts the measure of performance and related revenue recognition. If the license to the Company's intellectual property is determined to be distinct from the other performance obligations identified in the arrangement, the Company will recognize revenue from non-refundable, up-front fees allocated to the license when the license is transferred to the customer and the customer is able to use and benefit from the license.

The Company receives payments from its customers based on billing schedules established in each contract. Such billings generally have 30-day terms. Up-front payments and fees are recorded as deferred revenue upon receipt or when due until the Company performs its obligations under these arrangements. Amounts are recorded as accounts receivable when the right to consideration is unconditional.

Collaborative Arrangements

The Company records the elements of its collaboration agreements that represent joint operating activities in accordance with ASC Topic 808, *Collaborative Arrangements* (ASC 808). Accordingly, the elements of the collaboration agreements that represent activities in which both parties are active participants and to which both parties are exposed to the significant risks and rewards that are dependent on the commercial success of the activities, are recorded as collaborative arrangements. The Company also considers the guidance in ASC Topic 606 by analogy in determining the appropriate treatment for the transactions between the Company and its collaborative partners and the transactions between the Company and third parties. Generally, the classification of transactions under the collaborative arrangements is determined based on the nature and contractual terms of the arrangement along with the nature of the operations of the participants. To the extent revenue is generated from a collaboration, the Company will recognize its share of the net sales on a gross basis if it is deemed to be the principal in the transactions with customers, or on a net basis if it is instead deemed to be the agent in the transactions with customers, consistent with the guidance in Topic 606.

Fair Value Measurements

Fair value is defined as the price that would be received upon sale of an asset or paid to transfer a liability between market participants at measurement dates. ASC Topic 820, *Fair Value Measurement* (ASC 820), establishes a three-level valuation

hierarchy for instruments measured at fair value. The hierarchy is based on the transparency of inputs to the valuation of an asset or liability as of the measurement date. The three levels are defined as follows:

Level 1—Inputs to the valuation methodology are quoted prices (unadjusted) for identical assets or liabilities in active markets.

Level 2—Inputs to the valuation methodology include quoted prices for similar assets and liabilities in active markets, and inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial instrument.

Level 3—Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity, or a remaining maturity at the time of purchase, of three months or less to be cash equivalents. The Company invests excess cash primarily in money market funds, commercial paper and government agency securities, which are highly liquid and have strong credit ratings. These investments are subject to minimal credit and market risks. Cash and cash equivalents are stated at cost, which approximates market value.

	Year ended December 31, 2021		Year ended December 31, 2020	
	Beginning of period	End of period	Beginning of period	End of period
Cash and cash equivalents	$ 255,094	$ 177,947	$ 62,351	$ 255,094
Restricted cash included in other assets, noncurrent	321	478	321	321
Total cash, cash equivalents and restricted cash per statement of cash flows	$ 255,415	$ 178,425	$ 62,672	$ 255,415

Other Assets

The Company recorded other assets of $2,356 and $2,153 as of December 31, 2021 and 2020, respectively, comprised of $1,418 and $1,832, respectively, held by a service provider, restricted cash of $478 and $321, respectively, held as a security deposit for a standby letter of credit related to a facility lease, and $460 as of December 31, 2021 of deferred financing costs related to the New Credit Facility (as defined below) with Silicon Valley Bank (SVB) and Oxford Financial LLC (Oxford). For additional information regarding the New Credit Facility, please refer to Note 7, *Debt*, to these consolidated financial statements.

Accounting for Stock-based Compensation

The Company accounts for its stock-based compensation in accordance with ASC Topic 718 Compensation—*Stock Compensation* (ASC 718). ASC 718 requires all stock-based payments to employees, directors and non-employees to be recognized as expense in the statements of operations based on their grant date fair values. The Company estimates the fair value of options granted using the Black-Scholes option pricing model. The Black-Scholes option pricing model requires inputs based on certain subjective assumptions, including (a) the expected stock price volatility, (b) the calculation of expected term of the award, (c) the risk-free interest rate and (d) expected dividends. Due to the lack of a public market for the Company's common stock prior to completion of the initial public offering and a lack of company-specific historical and implied volatility data, the Company has based its estimate of expected volatility on the historical volatility of a group of similar companies that are publicly traded. The historical volatility is calculated based on a period of time commensurate with the expected term assumption. The computation of expected volatility is based on the historical volatility of a representative group of companies with similar characteristics to the Company, including stage of product development and life science industry focus. The Company uses the simplified method as prescribed by the SEC Staff Accounting Bulletin No. 107, *Share-Based Payment*, to calculate the expected term for options granted to employees as it does not have sufficient historical exercise data to provide a reasonable basis upon which to estimate the expected term. For options granted to non-employees, the Company utilizes the contractual term of the arrangement as the basis for the expected term assumption. The risk-free interest rate is based on a

treasury instrument whose term is consistent with the expected term of the stock options. The expected dividend yield is assumed to be zero as the Company has never paid dividends and has no current plans to do so.

The Company determines the fair value of each restricted stock unit (RSU), at its grant date based on the closing market price of the Company's common stock on that date. For stock-based compensation subject to service-based vesting conditions, the Company recognizes stock-based compensation expense equal to the grant date fair value of stock-based compensation on a straight-line basis over the requisite service period.

The Company records forfeitures as a cumulative adjustment in the period in which they occur.

Net Loss per Share

Basic net loss per share of common stock is calculated by dividing the net loss attributable to common stockholders by the weighted-average number of shares outstanding and, for the year ended December 31, 2019, 2,575,000 Exchange Warrants (as defined in Note 8, *Stockholders' Equity*) outstanding during the period, without further consideration for potentially dilutive securities. In accordance with ASC Topic 260, *Earnings Per Share*, the Exchange Warrants are included in the computation of basic net loss per share because the exercise price is negligible and they are fully vested and exercisable at any time after the original issuance date. Diluted net loss per share is computed by dividing the net loss attributable to common stockholders by the weighted-average number of common shares and potentially dilutive securities outstanding for the period determined using the treasury stock method. For purposes of the diluted net loss per share calculation, stock options, unvested RSUs and warrants to purchase common stock are considered to be potentially dilutive securities, but are excluded from the calculation of diluted net loss per share because their effect would be anti-dilutive and therefore, basic and diluted net loss per share were the same for all periods presented.

The following table sets forth the outstanding potentially dilutive securities that have been excluded from the calculation of diluted net loss per share because to include them would be anti-dilutive (in common stock equivalent shares):

	Year ended December 31,		
	2021	2020	2019
Stock options	8,342,429	6,112,948	4,720,772
Unvested restricted stock units	817,609	716,767	447,336
Warrants	39,474	39,474	39,474
	9,199,512	6,869,189	5,207,582

Property and Equipment

Property and equipment is stated at cost, less accumulated depreciation. Depreciation is computed using the straight-line method over the estimated useful life of each asset as follows:

Computer equipment, office equipment and software	3 years
Laboratory equipment	5 years
Leasehold improvements	Shorter of useful life or life of lease

Upon retirement or sale, the cost of the assets disposed of and the related accumulated depreciation are eliminated from the balance sheet and related gains or losses are reflected in the statement of operations. There were no material sales of assets during the years ended December 31, 2021, 2020 and 2019.

The Company reviews its long-lived assets for impairment whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable. If an impairment review is performed to evaluate an asset for recoverability, the Company compares forecasts of undiscounted cash flows expected to result from the use and eventual disposition of the asset to its carrying value. If the carrying amount of the asset exceeds its estimated undiscounted future net cash flows, an impairment charge is recognized in the amount by which the carrying amount of the asset exceeds the fair value of the asset. The Company did not recognize impairment charges during the years ended December 31, 2021, 2020 and 2019.

Leases

Consistent with ASC Topic 842, *Leases*, the Company determines if an arrangement is a lease at inception. Operating leases are included in right-of-use lease assets (ROU assets), current portion of lease obligations and long-term lease obligations on the Company's consolidated balance sheets. Assets subject to finance leases are included in property and equipment, and the related lease obligation is included in other current liabilities and other long-term liabilities on the Company's consolidated balance sheets. Lease assets are tested for impairment in the same manner as long-lived assets used in operations. Lease expense for operating leases is recognized on a straight-line basis over the lease term as an operating expense while expense for financing leases is recognized as depreciation expense and interest expense using the effective interest method. The Company has elected the short-term lease recognition exemption for short-term leases, which allows the Company not to recognize lease liabilities and ROU assets on the consolidated balance sheets for leases with an original term of twelve months or less.

ROU assets represent the Company's right to use an underlying asset for the lease term, and lease obligations represent the Company's obligation to make lease payments arising from the lease. Operating lease liabilities and their corresponding ROU assets are initially recorded based on the present value of lease payments over the expected remaining lease term. When determining the lease term, the Company includes options to extend or terminate the lease when it is reasonably certain that the option will be exercised. Certain adjustments to the ROU asset may be required for items such as incentives received. The interest rate implicit in lease contracts is typically not readily determinable. As a result, the Company utilizes its incremental borrowing rate to discount lease payments. The incremental borrowing rate reflects the fixed rate at which the Company could borrow, on a collateralized basis, the amount of the lease payments in the same currency, for a similar term, in a similar economic environment. Prospectively, the Company will adjust the ROU assets for straight-line rent expense, or any incentives received and remeasure the lease liability at the net present value using the same incremental borrowing rate that was in effect as of the lease commencement or transition date.

The Company has lease agreements with lease and non-lease components, which are generally accounted for separately.

Patent Costs

The Company expenses patent application and related legal costs as incurred and classifies such costs as general and administrative expenses in the accompanying consolidated statements of operations.

Income Taxes

The Company accounts for income taxes in accordance with ASC Topic 740, *Accounting for Income Taxes*, which provides for deferred taxes using an asset and liability approach. The Company recognizes deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements or tax returns. The Company determines its deferred tax assets and liabilities based on differences between financial reporting and tax bases of assets and liabilities, which are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. Valuation allowances are provided if, based upon the weight of available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

The Company recognizes the effect of income tax positions only if those positions are more likely than not to be sustained. Recognized income tax positions are measured at the largest amount that is more likely than not to be realized. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs.

Comprehensive Income (Loss)

Comprehensive income (loss) comprises net loss and other comprehensive loss. For the year ended December 31, 2021, comprehensive loss equaled net loss. For the years ended December 31, 2020 and 2019, other comprehensive income (loss) consisted of changes in unrealized income and loss on marketable securities.

Concentration of Credit Risk and Off-balance Sheet Risk

The Company has no financial instruments with off-balance sheet risk, such as foreign exchange contracts, option contracts, or other foreign hedging arrangements. Financial instruments that potentially subject the Company to concentrations of credit risk

primarily consist of cash equivalents and marketable securities. Under its investment policy, the Company limits amounts invested in such securities by credit rating, maturity, industry group, investment type and issuer, except for securities issued by the U.S. government. The Company has not experienced any credit losses and does not believe that it is subject to any significant concentrations of credit risk from these financial instruments.

Recently Adopted Accounting Pronouncements

In December 2019, the FASB issued ASU No. 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*, as part of its initiative to reduce complexity in the accounting standards. The amendments in ASU 2019-12 eliminate certain exceptions related to the approach for intraperiod tax allocation, the methodology for calculating income taxes in an interim period and the recognition of deferred tax liabilities for outside basis differences. ASU 2019-12 also clarifies and simplifies other aspects of the accounting for income taxes. The amendments in ASU 2019-12 are effective for the fiscal years beginning after December 15, 2020. The adoption of this standard did not have a material impact on the Company’s consolidated financial statements and related disclosures.

3. Collaboration Agreements

Merck KGaA

In June 2014, the Company entered into a Collaboration and Commercial License Agreement with Merck KGaA (the Merck KGaA Agreement). Upon the execution of the Merck KGaA Agreement, Merck KGaA paid the Company a non-refundable technology access fee of $12,000 for the right to develop ADCs directed to six exclusive targets over a specified period of time. No additional fees are due when a target is designated and the commercial license to the target is granted. Merck KGaA will be responsible for the product development and marketing of any products resulting from this collaboration.

Under the terms of the Merck KGaA Agreement, the Company and Merck KGaA develop research plans to evaluate Merck KGaA's antibodies as ADCs incorporating the Company's technology. The Company receives reimbursement for its efforts under the research plans. The goal of the research plans is to provide Merck KGaA with sufficient information to formally nominate a development candidate and begin IND-enabling studies or cease development on the designated target.

In addition to the payments received for research and development activities performed on behalf of Merck KGaA, the Company could be eligible to receive up to a total of $780,000 in future milestones related to all targets under the Merck KGaA Agreement, plus low to mid-single digit royalties on the commercial sales of any resulting products during the applicable royalty term. The total milestones are categorized as follows: development milestones $84,000; regulatory milestones $264,000; and sales milestones $432,000. There are six individual development milestones per target, payable upon the completion of various activities, from the delivery of ADCs meeting defined specifications, through the dosing in a Phase 3 clinical trial. There are five regulatory milestones, which are payable upon regulatory approvals for a first indication in each of the U.S., European Union and Japanese markets and regulatory approvals for both a second and a third indication in the United States. There are three individual commercial milestones, which are payable upon the attainment of certain defined thresholds for annual net sales.

Prior to 2020, the Company had received $3,000 related to development milestones under the Merck KGaA Agreement. There have been no additional milestone payments in the years ended December 31, 2021 or 2020. The next potential milestone payment the Company will be eligible to receive will be a development milestone of $500 on Merck KGaA's designation of a preclinical development candidate for any target. Revenue will be recognized when achievement of the milestone is considered probable.

Unless earlier terminated, the Merck KGaA Agreement will expire upon the expiration of the last royalty term for a product under the Merck KGaA Agreement, after which time, Merck KGaA will have a perpetual, royalty-free license, or if Merck KGaA does not designate any ADC product candidates produced by the Company under the Merck KGaA Agreement as preclinical development candidates, upon the expiration of the last to expire research program. Merck KGaA may terminate the Merck KGaA Agreement in its entirety or with respect to any target for convenience upon 60 days' prior written notice. Each party may terminate the Merck KGaA Agreement in its entirety upon bankruptcy or similar proceedings of the other party or upon an uncured material breach of the Merck KGaA Agreement by the other party. However, if such breach only relates to one target, the agreement may only be terminated with respect to such target.

In May 2018, the Company entered into a Supply Agreement with Merck KGaA (the Merck KGaA Supply Agreement). Under the terms of the Merck KGaA Supply Agreement, the Company will provide Merck KGaA preclinical non-GMP ADC drug substance and clinical GMP drug substance for use in clinical trials associated with one of the antibodies designated under the Merck KGaA Agreement. The Company receives fees for its efforts under the Merck KGaA Supply Agreement and reimbursement equal to the supply cost. The Company may also enter into future supply agreements to provide clinical supply material should Merck KGaA pursue clinical development of any other candidates nominated under the Merck KGaA Agreement.

Accounting Analysis

The Company identified the following performance obligations under the Merck KGaA Agreement: (i) exclusive license and research services for six designated targets, (ii) rights to future technological improvements and (iii) participation of project team leaders and providing joint research committee services.

The Company has concluded that each license for a designated target is not distinct from the research services performed related to the designated target as Merck KGaA cannot obtain the benefit of the license without the related research services. Each license for a designated target and the related services performance obligation is considered distinct from every other license for a designated target and related services performance obligation as each research plan is pursued independent of every other research plan for other designated targets.

The Company utilizes the expected value approach to estimate the amount of consideration related to the payment of fees associated with development and research services. The Company utilizes the most likely amount approach to estimate any development and regulatory milestone payments to be received. As of the date of initial application of Topic 606, there were no milestones payments that had not already been received, included in the estimated transaction price. The Company considered the stage of development and the remaining risks associated with the remaining development required to achieve the milestone, as well as whether the achievement of the milestone is outside the control of the Company or Merck KGaA. The milestone payment amounts were fully constrained, as a result of the uncertainty whether any of the associated milestones would be achieved. The Company has determined that any commercial milestones and sales based royalties will be recognized when the related sales occur as they were determined to relate predominantly to the license granted and therefore have also been excluded from the transaction price.

The transaction price was allocated to the performance obligations based on the relative estimated standalone selling prices of each performance obligation or in the case of certain variable consideration to one or more performance obligations. The estimated standalone selling prices for performance obligations, that include a license and research services, were developed using the estimated selling price of the license and an estimate of the overall effort to perform the research service and an estimated market rate for research services. The estimated standalone selling price of the licenses was established based on comparable transactions. The estimated standalone selling price for the rights to future technological improvements was developed based on the estimated selling prices of a license or rights received, as well as considering the probability that additional technology would be made available or the probability the counterpart would utilize the technology. The estimated standalone selling price for the joint research committee services was developed using an estimate of the time and costs incurred to participate in the committees.

The Company re-evaluates the transaction price in each reporting period and as uncertain events are resolved or other changes in circumstances occur. As of December 31, 2021 and 2020, the total estimated transaction price for the Merck KGaA Agreement was $21,325. The transaction price of $21,325 was allocated to the performance obligations as follows: approximately $3,941 for each of the license and corresponding research and development services units of account for the first and second designated targets; $3,439 for each of the license and corresponding research and development services units of account for the third and sixth designated target; $3,152 for the license and corresponding research and development services unit of account for the fourth designated target; $2,746 for the license and corresponding research and development services unit of account for the fifth designated target; $425 for rights to future technological improvements; and $242 for joint research committee services.

The Company is recognizing revenue related to the exclusive license and research and development services performance obligation over the estimated period of the research and development services using a proportional performance model. The Company measures proportional performance based on the costs incurred relative to the total costs expected to be incurred. To

the extent that the Company receives fees for the research services as they are performed, these amounts are recorded as deferred revenue. Revenue related to future technological improvements and joint research committee services will be recognized ratably over the performance period (which in the case of the joint research committee services approximate the time and cost incurred each period), which are 10 and 5 years, respectively. The Company is continuing to reassess the estimated remaining term at each subsequent reporting period.

As of December 31, 2021, the Company has completed its research service obligations associated with four of the six designated targets. During the years ended December 31, 2021, 2020 and 2019, the Company recorded collaboration revenue of $43, $828 and $853, respectively, related to its efforts under the Merck KGaA Agreement. During the year ended December 31, 2019, the Company recognized collaboration revenue and corresponding research and development expense of $1,280 related to the Merck KGaA Supply Agreement. There were no amounts recognized during the years ended December 31, 2021 and 2020 related to the Merck KGaA Supply Agreement. There was no balance in accounts receivable related to the Merck KGaA Agreement and Merck KGaA Supply Agreement as of either December 31, 2021 or December 31, 2020.

As of December 31, 2021 and 2020, the Company had recorded $3,944 and $3,987, respectively, in deferred revenue related to the Merck KGaA Agreement and Merck KGaA Supply Agreement that will be recognized over the remaining performance period.

Takeda XMT-1522 Strategic Partnership

In January 2016, the Company entered into a Development Collaboration and Commercial License Agreement with Takeda Pharmaceutical, Inc.'s wholly owned subsidiary, Millennium Pharmaceuticals, Inc. for the development and commercialization of XMT-1522 (the XMT-1522 Agreement). Under the XMT-1522 Agreement, Takeda was granted the exclusive right to commercialize XMT-1522 outside of the United States and Canada. Under the XMT-1522 Agreement, the Company was responsible for conducting certain Phase 1 development activities for XMT-1522, including the ongoing Phase 1 clinical trial, at its own expense. The parties agreed to collaborate on the further development of XMT-1522 in accordance with a global development plan (Post-Phase 1 Development). On January 2, 2019, the Company received notice from Takeda stating that Takeda was exercising its right to terminate the XMT-1522 Agreement upon 30 days' prior written notice. The XMT-1522 Agreement terminated in accordance with its provisions, and the Company and Takeda wound down activities related to the XMT-1522 Agreement as of March 31, 2019. Under the XMT-1522 Agreement, the Company and Takeda shared equally all agreed Post-Phase 1 Development costs through the date of termination and for a period of 30 days after the effective termination date.

Takeda Strategic Research and Development Partnership

In March 2014, the Company entered into a Research Collaboration and Commercial License Agreement with Takeda's wholly owned subsidiary, Millennium Pharmaceuticals, Inc. (the 2014 Agreement). The 2014 Agreement was amended in January 2015 and amended and restated in January 2016 (the 2016 Restated Agreement). The agreements provided Takeda with the right to develop ADCs directed to a total of seven exclusive targets, designated by Takeda, over a specified period of time. On January 2, 2019, the Company received notice from Takeda stating that Takeda was exercising its right to terminate the 2016 Restated Agreement upon 45 days' prior written notice. The 2016 Restated Agreement terminated in accordance with its provisions, and the Company and Takeda wound down activities related to the 2016 Restated Agreement as of March 31, 2019.

Accounting Analysis

The Company's collaboration agreements with Takeda were terminated following receipt of written notices during the first quarter of 2019. As there are no further performance obligations, the Company recognized the remaining deferred revenue of $39,965 related to the termination of the Takeda agreements in the first quarter of 2019.

Prior to the termination of the agreements, the Company had identified 14 performance obligations in the agreements. The Company concluded that the license related to each of the designated targets was not distinct from the research services performed related to each of the designated targets as Takeda could not have obtain the benefit of the license without the related research services. Each license to a designated target and the related service performance obligation was considered distinct from every other license to a designated target and related services performance obligation as each research plan was pursued independent of the any other research plans for other designated targets. Further, the material rights provided were determined

to be distinct from the other performance obligations in the arrangement as they were options in the contract Takeda agreements and not required for Takeda to obtain the benefit of the other promised goods or services in the arrangement. Similarly, the Company concluded that the XMT-1522 license and the related research and development services, including the Phase 1 development and the transfer of certain materials and know-how related to the Company's manufacturing processes, were one performance obligation. The license to the Company's intellectual property was not determined to be distinct from the research and related development services that the Company was obligated to perform. For the year ended December 31, 2019, the Company recorded total revenue of $39,965 related to its efforts under the 2016 Restated Agreement and the XMT-1522 Agreement. The Company did not record any revenue under the 2016 Restated Agreement and the XMT-1522 Agreement in the years ended December 31, 2021 and 2020.

The Company concluded that the Post-Phase 1 Development activities under the XMT-1522 Agreement represented joint operating activities in which both parties were active participants and of which both parties were exposed to significant risks and rewards that are dependent on the commercial success of the activities. Accordingly, the Company accounted for the Post-Phase 1 Development activities in accordance with ASC 808. For the year ended December 31, 2019, the Company was billed approximately $200 from Takeda representing Post-Phase 1 Development costs incurred by Takeda. These amounts have been reflected as research and development costs in the consolidated statement of operations. During the year ended December 31, 2019, the Company billed Takeda $195 related to ASC 808 costs.

Summary of Contract Assets and Liabilities

The following table presents changes in the balances of our contract assets and liabilities during the years ended December 31, 2021 and December 31, 2020:

	Balance at Beginning of Period	Additions	Deductions	Balance at End of Period
Year ended December 31, 2021				
Contract assets	$ —	$ —	$ —	$ —
Contract liabilities:				
Deferred revenue	$ 3,987	$ —	$ 43	$ 3,944

	Balance at Beginning of Period	Additions	Deductions	Balance at End of Period
Year ended December 31, 2020				
Contract assets	$ —	$ —	$ —	$ —
Contract liabilities:				
Deferred revenue	$ 4,815	$ —	$ 828	$ 3,987

During the year ended December 31, 2021, the Company recognized the following revenues as a result of changes in the contract asset and the contract liability balances in the respective periods.

	Year ended December 31,	
	2021	2020
Revenue recognized in the period from:		
Amounts included in the contract liability at the beginning of the period	$ 43	$ 828
Performance obligations satisfied in previous periods	$ —	$ —

Other Revenue

The Company has provided limited services for a collaboration partner, Asana BioSciences. For the years ended December 31, 2021, 2020 and 2019, the Company recorded revenue of $0, $0 and $25, respectively, related to these services. The next

potential milestone the Company is eligible to receive is $2,500 upon dosing the fifth patient in a Phase 1 clinical trial by Asana BioSciences. As of December 31, 2021, the Company considered this next milestone to be fully constrained as there is considerable judgment involved in determining whether it is probable that a significant revenue reversal would occur. As part of its evaluation of the constraint, the Company considered numerous factors, including the fact that achievement of the milestone is outside the control of the Company and there is a high level of uncertainty in achieving this milestone, as this would require initiation of clinical trials by the collaboration partner. The Company reevaluates the probability of achievement of a milestone subject to constraint at each reporting period and as uncertain events are resolved or other changes in circumstances occur.

4. Fair Value Measurements

The carrying amounts reflected in the consolidated balance sheets for prepaid expenses and other current assets, accounts payable and accrued expenses approximate their fair values due to their short-term nature.

As of December 31, 2021 and 2020, the carrying value of the Company's outstanding borrowing under the Prior Credit Facility and New Credit Facility (as defined below, respectively) approximated fair value (a Level 2 fair value measurement), reflecting interest rates currently available to the Company. The Prior Credit Facility and New Credit Facility are discussed in more detail in Note 7, *Debt*.

5. Property and Equipment

Property and equipment consists of the following as of December 31, 2021 and 2020:

	December 31, 2021	December 31, 2020
Laboratory equipment	$ 6,725	$ 6,520
Leasehold improvements	1,906	1,886
Computer equipment and office equipment	1,019	959
Total property and equipment at cost	9,650	9,365
Less: Accumulated depreciation	(7,682)	(7,635)
	$ 1,968	$ 1,730

The Company recorded assets under finance leases of $609, $0, and $429 as property and equipment during the years ended December 31, 2021, 2020 and 2019, respectively. Financing leases are discussed in more detail in Note 10, *Leases*. Depreciation expense for the years ended December 31, 2021, 2020 and 2019 was $855, $1,010 and $1,245, respectively.

6. Accrued Expenses

Accrued expenses consist of the following as of December 31, 2021 and 2020:

	December 31, 2021	December 31, 2020
Accrued manufacturing expenses	$ 8,476	$ 4,157
Accrued clinical expenses	7,879	5,126
Accrued payroll and related expenses	7,319	5,412
Accrued preclinical expenses	3,848	619
Accrued professional fees	909	757
Accrued other	285	75
	$ 28,716	$ 16,146

7. Debt

On May 8, 2019, the Company entered into a loan and security agreement (the Original Agreement) with SVB pursuant to which the Company borrowed $5,000. The Original Agreement accrued interest at a floating per annum rate equal to the greater of (i) 4.0% and (ii) 1.50% below the Prime Rate. The Original Agreement had an interest-only period through August 31, 2020.

On August 28, 2020, the Company entered into a second amendment (the Second Amendment) to the Original Agreement with SVB (the Prior Credit Facility). Pursuant to the Second Amendment, the Company drew $5,200 upon execution of the Second Amendment, the proceeds of which were used to repay the Company's existing balance under the Original Agreement and satisfy its obligations to SVB. The Amended Credit Facility accrued interest at a floating per annum rate equal to the greater of (i) 4.25% and (ii) 1.00% above the Prime Rate.

On October 29, 2021, the Company entered into a loan and security agreement (the New Credit Facility) with SVB and Oxford (Oxford and SVB, together the Lenders). Pursuant to the New Credit Facility, the Company can borrow term loans in an aggregate amount of $100,000, which includes (i) $60,000 in up to three principal advances through December 31, 2022, (ii) an additional $10,000 in one principal advance, if the Company reaches certain development milestone events through December 31, 2022, (iii) an additional $10,000 in one principal advance, if the Company reaches additional development milestone events through June 30, 2023 and (iv) an additional tranche of $20,000, subject to conditional approval from the Lenders. The Company drew $25,000 upon execution of the New Credit Facility, of which $5,500 of the proceeds was used to repay the existing balance under the Prior Credit Facility and satisfy its obligations to SVB, resulting in the recording of a $398 loss on extinguishment, which is presented within interest expense for the year ended December 31, 2021 on the Consolidated Statements of Operations and Comprehensive Loss. Upon entering into the New Credit Facility, the Company terminated all commitments by SVB to extend further credit under the Prior Credit Facility and all guarantees and security interests granted by the Company to SVB under the Prior Credit Facility.

The New Credit Facility bears interest at a floating per annum rate equal to the greater of (i) 8.50% and (ii) 5.25% above the Prime Rate. Interest is payable monthly in arrears on the first day of each month. The Company is obligated to make interest-only payments through November 1, 2024, followed by equal monthly principal payments and applicable interest through the maturity date of October 1, 2026 (the Maturity Date). If certain development milestones are met, then the interest-only period will be extended to November 1, 2025.

The Company is also required to make a final payment to the Lenders equal to 4.25% of the principal amount of the term loans then extended to the Company. This final payment is accreted under the effective interest method over the life of each term loan. The term loans are secured by substantially all of the Company's assets, except for its intellectual property which is subject to a negative pledge, and certain other customary exclusions.

At the Company's option, it may prepay the outstanding principal balance of any term loans in whole but not in part, subject to a prepayment fee of: (a) 3.0% of the term loans then extended to the Company if the prepayment occurs on or prior to the first anniversary of the funding date of such term loan, (b) 2.0% of the term loans then extended to the Company if the prepayment occurs after the first anniversary of the funding date of such term loan but on or prior to the second anniversary of the funding date of such term loan, or (c) 1.0% of the term loans then extended to the Company if the prepayment occurs after the second anniversary of the funding date of such term loan but before the Maturity Date. The New Credit Facility includes customary affirmative and restrictive covenants applicable to the Company. Affirmative covenants include, among others, covenants requiring the Company to maintain its corporate existence and governmental approvals, deliver certain financial reports, maintain insurance coverage and satisfy certain requirements regarding deposit accounts. The restrictive covenants include, among others, requirements relating to the Company's ability to transfer collateral, incur additional indebtedness, engage in mergers or acquisitions, pay dividends or make other distributions, make investments, create liens, sell assets and agree to a change in control, in each case subject to certain customary exceptions.

The Company's payment obligations under the New Credit Facility are subject to acceleration upon the occurrence of specified events of default, which include, but are not limited to, the occurrence of a material adverse change in the Company's business, operations, or financial or other condition. Amounts outstanding upon the occurrence of an event of default are payable upon the Lenders' demand and shall accrue interest at an additional rate of 5.0% per annum of the past due amount outstanding. As of December 31, 2021, the Company was in compliance with all covenants under the New Credit Facility. As such, as of

December 31, 2021, the classification of the loan balance as stated on the balance sheet was based on the timing of defined future payment obligations.

In connection with entering into the New Credit Facility, the Company paid $958 in costs, of which $210 was paid to Lenders and $748 was paid to third parties. Certain costs were recorded as a reduction of the carrying amount on the term loan and amortized as interest expense using the effective-interest method, which was comprised of $151 of the costs paid to the Lenders and $273 of the costs paid to third parties. The remaining costs of $533 were capitalized in other assets related to the Company's right to borrow additional amounts from the Lenders in the future and amortized to interest expense over the relevant draw period on a straight-line basis.

As of December 31, 2021, there was $25,000 outstanding under the New Credit Facility and the debt consisted of the following:

	December 31, 2021
Total debt	$ 25,000
Less: Current portion of long-term-debt	—
Total debt, net of current portion	25,000
Debt financing costs, net of accretion	(410)
Accretion related to final payment	36
Long-term debt, net	$ 24,626

As of December 31, 2021, the estimated future principal payments due are as follows:

2022	$ —
2023	—
2024	2,083
2025	12,500
2026	10,417
Total debt	$ 25,000

During the year ended December 31, 2021 and 2020, the Company recognized $797 and $340, respectively, of interest expense related to the Prior Credit Facility and New Credit Facility, as applicable.

8. Stockholders' Equity

Preferred stock

As of December 31, 2021, the Company had 25,000,000 shares of authorized preferred stock. No shares of preferred stock have been issued.

At-the-market equity offering program

In July 2018, the Company established an at-the-market (ATM) equity offering program (the 2018 ATM) pursuant to which it could offer and sell up to $75,000 of its common stock from time to time at prevailing market prices. During the year ended December 31, 2020, the Company sold 10,900,599 shares of common stock and received net proceeds of $62,976 through the 2018 ATM. In May 2020, the Company terminated the 2018 ATM and established a new ATM equity offering program (the 2020 ATM) pursuant to which it is able to sell up to $100,000 of its common stock from time to time at prevailing market prices. As of December 31, 2021, the Company had sold 3,961,074 shares of common stock and received net proceeds of $43,087 under the 2020 ATM.

Follow-on offering

In June 2020, the Company sold 9,200,000 shares of common stock, in an underwritten public offering price to the public of $19.00 per share. Net proceeds to the Company after deducting fees, commissions and other expenses related to the offering were $163,990.

Warrants

In connection with a 2013 Series A-1 Preferred Stock issuance, the Company granted to certain investors warrants to purchase 129,491 shares of common stock. The warrants have a $0.05 per share exercise price and a contractual life of 10 years. The fair value of these warrants was recorded as a component of equity at the time of issuance. As of December 31, 2021 and 2020 there were warrants to purchase 39,474 shares of common stock. During the year ended December 31, 2021, there were no exercises of warrants in exchange for shares of common stock.

Exchange warrants

On November 26, 2019, the Company entered into an exchange agreement with entities affiliated with Biotechnology Value Fund, L.P. (the Exchanging Stockholders), pursuant to which the Exchanging Stockholders exchanged an aggregate of 2,575,000 shares of common stock for warrants (the Exchange Warrants) to purchase an aggregate of 2,575,000 shares of common stock (subject to adjustment in the event of any stock dividends and splits, reverse stock split, merger or consolidation, change of control, reorganization or similar transaction, as described in the Exchange Warrants), with an exercise price of $0.0001 per share.

In accordance with ASC Topic 505, *Equity*, the Company recorded the retirement of the common stock exchanged as a reduction of common shares outstanding and a corresponding debit to additional paid-in-capital at the fair value of the Exchange Warrants on the issuance date. While outstanding, the Exchange Warrants were classified as equity in accordance with ASC Topic 480, *Distinguishing Liabilities from Equity*, and the fair value of the Exchange Warrants was recorded as a credit to additional paid-in capital and is not subject to remeasurement. The Company determined that the fair value of the Exchange Warrants is substantially similar to the fair value of the retired shares on the issuance date due to the negligible exercise price for the Exchange Warrants. On March 2, 2020, the Exchanging Stockholders exercised the Exchange Warrants in full on a net cashless exercise basis, resulting in the issuance of 2,574,971 shares of common stock.

Common Stock

The holders of the common stock are entitled to one vote for each share held. Common stockholders are not entitled to receive dividends, unless declared by the Board of Directors of the Company (the Board).

As of December 31, 2021 and 2020 there were 9,199,512 and 6,869,189 shares of common stock, respectively, reserved for the exercise of outstanding stock options and warrants.

	December 31, 2021	December 31, 2020
Stock options	8,342,429	6,112,948
Restricted stock units	817,609	716,767
Warrants	39,474	39,474
	9,199,512	6,869,189

9. Stock Options

Stock option plans

As of June 30, 2017, there were 3,141,625 options outstanding under the Company's 2007 Stock Incentive Plan. The 2007 Plan expired in June 2017. Any cancellations or forfeitures of options granted under the 2007 Stock Incentive Plan will increase the options available under the 2017 Stock Incentive Plan as described below.

In June 2017 the Company's shareholders approved the 2017 Stock Incentive Plan (the 2017 Plan or the Plan). Under the 2017 Plan initially, up to 2,255,000 shares of common stock may be granted to the Company's employees, officers, directors, consultants and advisors in the form of options, RSUs or other stock-based awards. The number of shares of common stock issuable under the Plan cumulatively increases annually by 4% of the outstanding shares or such lesser amount determined by the Board. The terms of the awards made under the Plan are determined by the Board, subject to the provisions of the Plan. In January 2021, the number of shares of common stock issuable under the 2017 Plan was increased by 2,753,651 shares. As of December 31, 2021 there were 1,308,183 shares available for future issuance under the Plan. During the year ended December 31, 2021, the Company granted to employees 715,716 RSUs and options to purchase 2,870,720 shares of common stock under the 2017 Plan.

Under the 2017 Plan, both with respect to incentive stock options and nonqualified stock options, the exercise price per share will equal the fair market value of the common stock on the date of grant, as determined by the Board, and the vesting period is generally four years. Options granted under the Plan expire no later than 10 years from the date of grant. Options under the 2007 Plan were granted at an exercise price established by the Board (or a committee thereof) that was not less than the fair market value of the underlying common stock on the date of grant and subject to such vesting provisions determined by the Board (or a committee thereof). The Board may accelerate vesting or otherwise adjust the terms of granted options in the case of a merger, consolidation, dissolution, or liquidation of the Company.

Inducement awards

The Company grants to its employees, upon approval by the Board, options to purchase shares of common stock as an inducement to employment in accordance with Nasdaq Listing Rule 5635(c)(4). The securities are issued pursuant to Section 4(a)(2) under the Securities Act of 1933, as amended, relating to transactions by an issuer not involving any public offering. These options are subject to terms substantially the same as the options granted under the 2017 Plan. As of December 31, 2021 there were options to purchase 757,500 shares of common stock granted as inducement awards outstanding.

Stock option activity

A summary of the activity is as follows:

	Number of Shares	Weighted-Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at January 1, 2021	6,112,948	$ 7.84	7.3	$ 114,729
Granted	3,308,220	$ 16.78		
Exercised	(421,381)	$ 4.36		
Cancelled	(657,358)	$ 11.76		
Outstanding at December 31, 2021	8,342,429	$ 11.25	7.2	$ 8,458
Vested and expected to vest at December 31, 2021	8,342,429	$ 11.25	7.2	$ 8,458
Exercisable at December 31, 2021	3,997,529	$ 7.63	5.5	$ 7,539

The weighted-average grant date fair value of options granted during the years ended December 31, 2021, 2020 and 2019, was $11.71, $7.99 and $2.47 per share, respectively. The total intrinsic value of options exercised during the years ended December 31, 2021, 2020 and 2019, was $4,299, $11,147, and $202, respectively. The aggregate intrinsic value represents the difference between the exercise price and the selling price received by option holders upon the exercise of stock options during the period.

Cash received from the exercise of stock options was $1,837, $3,138 and $175 for the years ended December 31, 2021, 2020 and 2019, respectively.

Restricted stock units

The Company periodically issues RSUs with a service condition to certain officers and other employees that typically vest between one year and four years from the grant date.

A summary of the RSU activity under the 2017 Plan is as follow:

	Number of Shares	Weighted-Average Remaining Contractual Term	Aggregate Intrinsic Value	Weighted-Average Grant Date Fair Value
Unvested at January 1, 2021	716,767	1.0	$ 19,073	$ 6.00
Granted	715,716	—		$ 18.39
Vested	(419,336)	—		$ 5.33
Forfeited	(195,538)	—		$ 12.34
Unvested at December 31, 2021	817,609	1.5	$ 5,086	$ 15.68

The total fair value of RSUs vested during the years ended December 31, 2021, 2020 and 2019, was $5,790, $0, and, $0, respectively.

Stock-based compensation expense

The Company uses the provisions of ASC 718, *Stock Compensation*, to account for all stock-based awards to employees and non-employees.

The measurement date for awards is generally the date of grant. Stock-based compensation expense is recognized over the requisite service period, which is generally the vesting period, using the straight-line method.

The following table presents stock-based compensation expense by award type included within the Company's consolidated statement of operations and comprehensive loss:

	Year ended December 31,		
	2021	2020	2019
Stock options	$ 14,528	$ 5,725	$ 4,230
Restricted stock units	3,522	1,187	410
Employee stock purchase plan	359	260	232
Stock-based compensation expense included in Total operating expenses	$ 18,409	$ 7,172	$ 4,872

The following table presents stock-based compensation expense as reflected in the Company's consolidated statements of operations and comprehensive loss:

	Year ended December 31,		
	2021	2020	2019
Research and development	$ 9,984	$ 3,841	$ 2,245
General and administrative	8,425	3,331	2,627
Stock-based compensation expense included in Total operating expenses	$ 18,409	$ 7,172	$ 4,872

As of December 31, 2021, there was $38,958 and $9,929 of unrecognized compensation expense related to unvested stock options and unvested RSUs, respectively, that is expected to be recognized over a weighted average period of 2.6 years and 2.8 years, respectively.

The fair value of each option award is estimated on the date of grant using the Black–Scholes option pricing model with the following weighted average assumptions:

	December 31,		
	2021	2020	2019
Risk-free interest rate	0.9 %	1.2 %	2.3 %
Expected dividend yield	— %	— %	— %
Expected term (years)	6.06	6.05	5.99
Expected stock price volatility	82 %	74 %	74 %

Expected volatility for the Company's common stock is determined based on the historical volatility of comparable publicly traded companies. The risk-free interest rate is based on the yield of U.S. Treasury securities consistent with the expected term of the option. No dividend yield was assumed as the Company has not historically and does not expect to pay dividends on its common stock. The expected term of the options granted is based on the use of the simplified method, in which the expected term is presumed to be the mid-point between the vesting date and the end of the contractual term.

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

Employee Stock Purchase Plan

During the year ended December 31, 2017, the Board adopted and the Company's stockholders approved the 2017 employee stock purchase plan (the 2017 ESPP). The Company initially reserved 225,000 shares of common stock for issuance under the 2017 ESPP, plus an annual increase, to be added as of January 1st of each year, equal to the least of (i) 450,000 shares of common stock; (ii) one percent of the number of shares of common stock outstanding as of the close of business on the immediately preceding December 31st; and (iii) the number of shares of common stock determined by the Board on or prior to such date for such year, up to maximum of 4,725,000 shares of common stock in the aggregate. During the years ended December 31, 2021 and 2020 the Company issued 78,253 and 80,267 shares, respectively, under the 2017 ESPP. As of December 31, 2021, there were 566,565 shares available for issuance.

10. Leases

The Company has an operating lease for its office and lab space in Cambridge, MA and operating and finance leases for certain equipment. In March 2020, the Company entered into the Seventh Amendment to the office and lab space lease (the Office Lease) to extend the term of the lease through March 2026. The Company has an option to extend the lease term of the Office Lease for an additional five years.

On April 5, 2021, the Company entered into an Eighth Amendment to the Office Lease, which granted the Company additional office space in its existing building for five years, beginning July 1, 2021, and committed the Company to lease payments of $4,983 over that period (the Expansion Lease). In connection with the Expansion Lease, the Company increased the balance of the security deposit by increasing the standby letter of credit for the benefit of its landlord by $157. The Expansion Lease also provided the Company with a tenant improvement allowance of $51. Independent from the option under the Office Lease, the Company has an option to extend the lease term of the Expansion Lease for an additional five years. The Company's exercise of the options to extend the lease terms of both the Office Lease and Expansion Lease were not considered reasonably certain as of December 31, 2021.

The Expansion Agreement is a lease modification accounted for as a separate contract, because it expands the scope of the Office Lease and the additional lease payments are commensurate with market rents. The Company assessed the lease classification of the Expansion Lease as of the date of signing and determined that the Expansion Lease should be accounted for as an operating lease. The right-of-use asset and corresponding operating lease liability have been calculated based on the present value of lease payments over the lease term. The Company determined the appropriate incremental borrowing rate to utilize as a discount rate by using a synthetic credit rating which was estimated based on an analysis of outstanding debt of companies with similar credit and financial profiles. Since the operating lease is a net lease, as the non-lease components (i.e., common area maintenance) are paid separately from rent based on actual costs incurred, such non-lease components were not included in the right-of-use (ROU) asset and liability and are reflected as an expense in the period incurred.

As a result of the signing of the Expansion Lease in April 2021, the Company recorded an increase of $3,783 to its ROU asset and lease liabilities in the second quarter of 2021.

The Company had a standby letter of credit agreement for the benefit of its landlord in the amount of $478 in connection with the Office Lease and Expansion Lease as of December 31, 2021 and $321 in connection with the Office Lease as of December 31, 2020, collateralized by a money market account.

The Company has remaining finance lease terms of one year to five years for certain equipment, some of which include options to purchase at fair value. For the year ended December 31, 2021, the Company recorded assets under finance leases of $609 as property and equipment.

The components of lease expense were as follows:

	Years ended December 31,		
	2021	2020	2019
Operating lease cost	$ 3,502	$ 2,755	$ 2,160
Finance lease cost:			
Amortization of right-of-use assets	$ 169	$ 101	$ 75
Interest on lease liabilities	28	21	20
	$ 197	$ 122	$ 95

Supplemental balance sheet information related to leases was as follows:

	Year ended December 31,	
	2021	2020
Operating leases:		
Operating lease right-of-use assets	$ 12,889	$ 10,936
Operating lease liabilities, current	$ 2,303	$ 1,437
Operating lease liabilities	$ 11,247	$ 10,158
Finance leases:		
Property and equipment, gross	$ 1,038	$ 429
Property and equipment, accumulated depreciation	$ (345)	$ (176)
Other liabilities, current	$ 239	$ 93
Other liabilities	$ 449	$ 174
Weighted-average remaining lease term:		
Operating leases	4.3 years	5.2 years
Finance leases	4.0 years	2.9 years
Weighted-average discount rate:		
Operating leases	10.8 %	10.8 %
Finance leases	5.4 %	6.9 %

Supplemental cash flow information related to leases was as follows:

	Year ended December 31,	
	2021	2020
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	$ 3,241	$ 2,394
Operating cash flows from finance leases	$ 28	$ 21
Financing cash flows from finance leases	$ 215	$ 116

Rent expense was $3,390, $2,644 and $2,160 for the years ended December 31, 2021, 2020 and 2019, respectively.

Future minimum lease payments under non-cancellable leases as of December 31, 2021 were as follows:

	Operating leases	Finance leases
2022	$ 3,795	$ 269
2023	3,909	262
2024	4,027	141
2025	4,147	48
2026 and thereafter	1,310	8
Total lease payments	17,188	728
Present value adjustment	(3,638)	(40)
Present value of lease liabilities	$ 13,550	$ 688

11. Income Taxes

For the years ended December 31, 2021, 2020 and 2019, the Company recorded no income tax benefit for the net operating losses incurred in each year, due to its uncertainty of realizing a benefit from those items.

A reconciliation of income taxes computed using the U.S. federal statutory rate to that reflected in operations as of December 31, 2021, 2020 and 2019 are as follows:

	2021	2020	2019
Income tax computed at federal statutory tax rate	21.0 %	21.0 %	21.0 %
State taxes, net of federal benefit	6.3 %	6.7 %	6.1 %
Permanent differences	(0.2)%	1.2 %	(2.0)%
General business credits	3.8 %	3.4 %	10.3 %
Stock compensation	0.1 %	— %	— %
Impact of ownership shift	— %	— %	(53.3)%
Change in valuation allowance	(31.0)%	(32.3)%	17.9 %
	— %	— %	— %

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the Company's net deferred tax assets as of December 31, 2021 and 2020 are as follows:

	2021	2020
Deferred tax assets:		
Net operating losses	$ 106,055	$ 64,259
Tax credit carryforwards	12,424	5,670
Accrued expenses	6,892	4,058
Lease liabilities	3,698	3,166
Licensed technology	2,775	1,534
Deferred revenue	1,076	1,088
Depreciation	493	502
Other	71	84
Total gross deferred tax assets	133,484	80,361
Valuation allowance	(130,051)	(77,375)
Net deferred tax assets less valuation allowance	3,433	2,986
Deferred tax liabilities		
Right-of-use assets	(3,433)	(2,986)
Total gross deferred tax liabilities	(3,433)	(2,986)
Net deferred taxes	$ —	$ —

The Company has incurred net operating losses (NOL) since inception. At December 31, 2021, the Company had Federal and State net operating loss carryforwards of approximately $403,579 and $337,057, respectively. Of the $403,579 of Federal net operating loss carryforwards, $34,149 expire at various dates through 2037. The remaining $369,430 of Federal net operating loss carryforwards do not expire. The State net operating loss carryforwards expire at various dates through 2041. At December 31, 2021, the Company had Federal and State research and development tax credit carryforwards of approximately $10,077 and $3,061, respectively, which expire at various dates through 2041.

As required by ASC 740, management of the Company has evaluated the evidence bearing upon the reliability of its deferred tax assets. Based on the weight of available evidence, both positive and negative, management has determined that it is more likely than not that the Company will not realize the benefits of all of these assets. Accordingly, the Company recorded a valuation allowance of $130,051 and $77,375 at December 31, 2021 and December 31, 2020, respectively. The valuation allowance increased by $52,676 and $28,468 during the years ended December 31, 2021 and 2020, respectively, primarily as a result of the Company's net operating losses generated during the periods, respectively.

Utilization of the NOLs and research and development tax credit carryforwards may be subject to a substantial annual limitation under Section 382 due to ownership change limitations that have occurred previously or that could occur in the future in accordance with Section 382, as well as similar state provisions. These ownership changes may limit the amount of NOLs and research and development tax credit carryforwards that can be utilized annually to offset future taxable income and tax, respectively. If a change in control as defined by Section 382 has occurred at any time since the Company's formation, utilization of its NOLs or research and development tax credit carryforwards would be subject to an annual limitation under Section 382, which is determined by first multiplying the value of the Company's stock at the time of the ownership change by the applicable long-term tax-exempt rate, which could then be subject to additional adjustments, as required. Any limitation may result in expiration of a portion of the NOLs or research and development tax carryforwards before their utilization. The Company has determined that ownership changes have occurred through November 4, 2019 and that certain NOLs and research and development tax credit carryforwards will be subject to limitation. The amounts presented do not include NOLs or research and development tax credit carryforwards that will expire unused due to ownership changes.

The Company applies the accounting guidance in ASC 740 related to accounting for uncertainty in income taxes. The Company's reserves related to taxes are based on a determination of whether, and how much of, a tax benefit taken by the

Company in its tax filings or positions is more likely than not to be realized following resolution of any potential contingencies present related to the tax benefit. As of December 31, 2021 and 2020, the Company had no unrecognized tax benefits.

The Company has not conducted a study of its research and development credit carryforwards. This study may result in an adjustment to research and development credit carryforwards; however, until a study is completed and any adjustment is known, no amounts are being presented as an uncertain tax position. A full valuation allowance has been provided against the Company's research and development credits and, if an adjustment is required, this adjustment would be offset by an adjustment to the valuation allowance. Thus, there would be no impact to the balance sheets or statements of operations if an adjustment were required.

Interest and penalties related to uncertain tax positions would be classified as income tax expense in the accompanying statements of operations. As of December 31, 2021 and 2020, the Company had no accrued interest or penalties related to uncertain tax positions.

The Company files income tax returns in the United States federal tax jurisdiction and four state jurisdictions. The Company did not have any foreign operations during the years ended December 31, 2021, 2020 and 2019. The statute of limitations for assessment by the Internal Revenue Service and state tax authorities is closed for tax years prior to 2017, although carryforward attributes that were generated prior to tax year 2017 may still be adjusted upon examination to the extent utilized in a future period. There are no federal or state audits currently in progress.

12. Employee Benefit Plan

The Company has a defined contribution plan established under Section 401(k) of the Internal Revenue Code (401(k) Plan), which covers substantially all employees. Employees who have attained the age of 21 are eligible to participate in the 401(k) Plan with no service requirement. Employees may contribute up to 95% of eligible pay on a pre–tax basis up to the federal annual limits. For the period from January 1, 2019 to July 31, 2019, the Company matched the employees' contributions at 50% on the first 6% up to $6. For the period from August 1, 2019 to December 31, 2020 and for the year ended December 31, 2021, the Company matched the employees' contributions at 100% on the first 4% up to $7. For the years ended December 31, 2021, 2020 and 2019, the Company recorded expense of $764, $486 and $404, respectively, related to its contribution to its 401(k) Plan.

13. Commitments

License Agreements

During the years ended December 31, 2021, 2020 and 2019, the Company recorded research and development expense related to non-refundable license payments of $3,075, $250, and $750, respectively. Further development milestones of $2,125, $750 and $600, respectively, were also recorded as research and development expense during the years ended December 31, 2021, 2020 and 2019.

See Note 10, *Leases*, to these consolidated financial statements for the Company's future obligations related to leases as of December 31, 2021.

14. Subsequent Events

Janssen Research Collaboration and License Agreement

In February 2022, the Company entered into the Janssen Collaboration pursuant to which the Company granted Janssen an exclusive license to use the Company's proprietary Dolasynthen platform and other technology to develop, manufacture and commercialize ADCs directed to up to three targets selected by Janssen. The Company is responsible for performing bioconjugation activities to create ADCs for Janssen based on antibodies provided by Janssen. The Company will also perform certain chemistry, manufacturing and controls development and early stage manufacturing activities for ADCs that Janssen progresses through development, up to and including the manufacturing of clinical drug substance, at Janssen's cost. Except with respect to this limited manufacturing, Janssen will be responsible for the further development, manufacturing and

commercialization of the ADCs developed under the Janssen Collaboration, including obtaining any necessary regulatory approvals, at Janssen's cost.

The Company received an upfront payment of $40,000 in February 2022. The Company is eligible to receive development and regulatory milestones with an aggregate total of $501,000, if licensed products directed to all three Targets are advanced by Janssen. The Company is also eligible to receive commercial milestones with an aggregate total of $530,000 in the event of commercialization of three Targets by Janssen and tiered royalties based on mid-single digits to low-double digits on future net sales of licensed ADCs

Unless earlier terminated, the Janssen Collaboration will continue in effect until the date on which the royalty term and all payment obligations with respect to all licensed ADCs in all countries have expired.

Other Events

On February 2, 2022, the Company amended the Commercial License and Option Agreement with Synaffix B.V. (Synaffix) in connection with the Janssen Collaboration, and agreed to pay Synaffix a non-refundable execution fee of $1,500 which will be applied against future target license fees or development milestones.

Further in connection with the Janssen Collaboration, on February 17, 2022, the Company amended the New Credit Facility described in Note 7, *Debt*, to these consolidated financial statements. Pursuant to this amendment the Company has agreed to replace the tranche B term loan and the tranche C term loan with a single combined term loan tranche in an aggregate principal amount of $20,000. Also, the combined term loan tranche will now be available any time on or prior to June 30, 2023, within 90 days of the Company achieving both of the prior tranche B and tranche C term loan milestones.

Subsequent to December 31, 2021 and through February 25, 2022, the Company sold 9,493,776 shares of common stock resulting in net proceeds of $45,579 from ATM offerings, with substantial participation from existing long-term investors. Approximately $9,414 remains unsold and available for sale under the 2020 ATM.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Management's Evaluation of our Disclosure Controls and Procedures

We maintain "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act, that are designed to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act is (1) recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and (2) accumulated and communicated to our management, including our principal executive and principal financial officer, as appropriate to allow timely decisions regarding required disclosure. Our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and our management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Our disclosure controls and procedures are designed to provide reasonable assurance of achieving their control objectives.

Our management, with the participation of our principal executive officer and principal financial officer, has evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2021, the end of the period covered by this Annual Report on Form 10-K. Based upon such evaluation, our principal executive officer and principal financial officer have concluded that our disclosure controls and procedures were effective at the reasonable assurance level as of such date.

Internal Control Over Financial Reporting

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over our financial reporting. Internal control over financial reporting is defined in Rules 13a-15(f) and 15d-15(f) promulgated under the Exchange Act as a process designed by, or under the supervision of, our principal executive and principal financial officers and effected by our board of directors, management and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles, or GAAP. Our internal control over financial reporting includes those policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect our transactions and dispositions of our assets;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. GAAP, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. 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.

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2021. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in its 2013 Internal Control — Integrated Framework. Based on our assessment, our management has concluded that, as of December 31, 2021, our internal control over financial reporting is effective based on those criteria.

The effectiveness of our internal control over financial reporting as of December 31, 2021 has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their report which is included herein.

Changes in Internal Control over Financial Reporting

No change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) occurred during the three months ended December 31, 2021 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Mersana Therapeutics, Inc.

Opinion on Internal Control over Financial Reporting

We have audited Mersana Therapeutics, Inc.'s internal control over financial reporting as of December 31, 2021, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Mersana Therapeutics, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the 2021 consolidated financial statements of the Company and our report dated February 28, 2022 expressed an unqualified opinion thereon.

Basis for Opinion

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

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

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

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

/s/ Ernst & Young LLP
Boston, Massachusetts
February 28, 2022

ITEM 9B. OTHER INFORMATION

2022 Inducement Stock Incentive Plan

On February 24, 2022, our Board of Directors adopted, upon recommendation of the compensation committee of our Board of Directors, or the Committee, the 2022 Inducement Stock Incentive Plan, or the Inducement Plan, to be effective immediately. The Inducement Plan provides for the grant of nonstatutory stock options, stock appreciation rights, restricted stock, restricted stock units, and other stock-based awards, collectively, the stock awards, with respect to an aggregate of 2,000,000 shares of our common stock (subject to adjustment as provided in the Inducement Plan). Awards under the Inducement Plan may only be granted to persons who (a) were not previously our employee or director or (b) are commencing employment with us following a bona fide period of non-employment, in either case as an inducement material to the individual's entering into employment with us and in accordance with the requirements of Nasdaq Stock Market Rule 5635(c)(4). A complete copy of the Inducement Plan is attached hereto as Exhibit 10.28 to this Annual Report on Form 10-K.

On February 28, 2022, our Board of Directors adopted, upon recommendation of the Committee, the nonstatutory stock option agreement and the restricted stock unit agreement for use in the grant of stock options and restricted stock units pursuant to the Inducement Plan. All stock options under the Inducement Plan shall be nonstatutory stock options. A complete copy of the forms of nonstatutory stock option agreement and the restricted stock unit agreement are attached hereto as Exhibits 10.30 and 10.29, respectively, to this Annual Report on Form 10-K.

At-the-market Equity Offering Program

On February 28, 2022, we entered into a Sales Agreement, or Sales Agreement, with Cowen and Company, LLC, or Cowen, under which we may issue and sell shares of common stock, from time to time, having an aggregate offering price of up to $100.0 million. Sales of common stock through Cowen may be made by any method that is deemed an "at the market" offering as defined in Rule 415 promulgated under the Securities Act of 1933, as amended. Cowen has agreed to use its commercially reasonable efforts consistent with its normal trading and sales practices to sell our shares of common stock based upon our instructions. We are not obligated to make any sales of our common stock under the Sales Agreement. Any sales under the Sales Agreement will be made pursuant to our registration statement on Form S-3 (File No 333-260895), which became effective on November 18, 2021, and pursuant to a prospectus supplement relating to such offering to be filed with the Securities and Exchange Commission.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this Item 10 will be included in our definitive proxy statement to be filed with the SEC with respect to our 2022 Annual Meeting of Stockholders and is incorporated herein by reference.

We post our Code of Business Conduct and Ethics, which applies to our directors, officers, and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, in the "Corporate Governance" sub-section of the "Investors & Media" section (https://ir.mersana.com) of our corporate website https://mersana.com/. We intend to disclose on our website any amendments to, or waivers from, the Code of Business Conduct and Ethics that are required to be disclosed pursuant to the disclosure requirements of Item 5.05 of Form 8-K.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item 11 will be included in our definitive proxy statement to be filed with the SEC with respect to our 2022 Annual Meeting of Stockholders and is incorporated here by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this Item 12 will be included in our definitive proxy statement to be filed with the SEC with respect to our 2022 Annual Meeting of Stockholders and is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this Item 13 will be included in our definitive proxy statement to be filed with the SEC with respect to our 2022 Annual Meeting of Stockholders and is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this Item 14 will be included in our definitive proxy statement to be filed with the SEC with respect to our 2022 Annual Meeting of Stockholders and is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

Financial Statements

For a list of the consolidated financial statements included herein, see Index to the Consolidated Financial Statements in this Annual Report on Form 10-K, which is incorporated into this Item by reference.

Financial Statement Schedules

No financial statement schedules have been submitted because they are not required or are not applicable or because the information required is included in the consolidated financial statements or the notes thereto.

Exhibits

See the Exhibit Index immediately before the signature page of this Annual Report on Form 10-K. The exhibits listed in the Exhibit Index are filed or incorporated by reference as part of this Annual Report on Form 10-K.

ITEM 16. FORM 10-K SUMMARY

None.

EXHIBIT INDEX

Exhibit Number	Description of Exhibit
3.1	Fifth Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, File No. 001-38129, filed on July 10, 2017).
3.2	Amended and Restated Bylaws (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K, File No. 001-38129, filed on July 10, 2017).
4.1	Form of Common Stock Warrant (incorporated by reference to Exhibit 4.1 to the Company's Form S-1, File No. 333-218412, filed on June 1, 2017).
4.2	Third Amended and Restated Investor Rights Agreement, dated as of June 15, 2016, by and among Mersana Therapeutics, Inc. and the Stockholders listed therein (incorporated by reference to Exhibit 4.2 to the Company's Form S-1, File No. 333-218412, filed on June 1, 2017).
4.3	Form of Exchange Warrant (incorporated by reference to Exhibit 4.1 to the Company's Form 8-K, File No. 001-38129, filed on November 27, 2019).
4.4	Description of Registrant's Common Stock (incorporated by reference to Exhibit 4.4 to the Company's Form 10-K, File No. 001-38129, filed on February 28, 2020).
10.1†	Form of Indemnification Agreement (incorporated by reference to Exhibit 10.1 to the Company's Form S-1/A, File No. 333-218412, filed on June 16, 2017).
10.2	Commercial Lease, dated February 24, 2009, between Mersana Therapeutics, Inc. and Rivertech Associates II, LLC (incorporated by reference to Exhibit 10.2 to the Company's Form S-1, File No. 333-218412, filed on June 1, 2017).
10.3	Seventh Lease Extension and Modification Agreement to the Lease Between Rivertech Associates II LLC and Mersana Therapeutics, Inc., dated March 10, 2020, by and between Mersana Therapeutics, Inc. and Rivertech Associates II LLC (incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q, File No. 001-38129, filed on May 8, 2020).
10.4	Eighth Lease Modification Agreement to the Lease Between Rivertech Associates II LLC and Mersana Therapeutics, Inc., effective as of April 5, 2021, by and between Mersana Therapeutics, Inc. and Rivertech Associates II LLC. (incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q, File No. 001-38129, filed on May 10, 2021).
10.5+	Collaboration and Commercial License Agreement, dated June 23, 2014, by and between Mersana Therapeutics, Inc. and Merck KGaA (incorporated by reference to Exhibit 10.4 to the Company's Form S-1, File No. 333-218412, filed on June 1, 2017).
10.6+	Amendment 1 to the Collaboration and Commercial License Agreement, dated June 1, 2016, by and between Mersana Therapeutics, Inc. and Merck KGaA (incorporated by reference to Exhibit 10.5 to the Company's Form S-1, File No. 333-218412, filed on June 1, 2017).
10.7+	Amendment 2 to the Collaboration and Commercial License Agreement, dated August 12, 2016, by and between Mersana Therapeutics, Inc. and Merck KGaA (incorporated by reference to Exhibit 10.6 to the Company's Form S-1, File No. 333-218412, filed on June 1, 2017).
10.8+	Amendment 3 to the Collaboration and Commercial License Agreement, dated February 28, 2017, by and between Mersana Therapeutics, Inc. and Merck KGaA (incorporated by reference to Exhibit 10.7 to the Company's Form S-1, File No. 333-218412, filed on June 1, 2017).
10.9	Amendment 4 to Collaboration and Commercial License Agreement dated May 15, 2018, by and between Mersana Therapeutics, Inc. and Merck KGaA (incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q, File No. 001-38129, filed on August 14, 2018).
10.10+	License, Development and Commercialization Agreement, dated July 9, 2015, by and between Mersana Therapeutics, Inc. and Recepta Biopharma S.A. (incorporated by reference to Exhibit 10.8 to the Company's Form S-1, File No. 333-218412, filed on June 1, 2017).

10.11	First Amendment to the License, Development and Commercialization Agreement, dated August 19, 2019, by and between Mersana Therapeutics, Inc. and Recepta Biopharma S.A. (incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q, File No. 001-38129, filed on November 6, 2019).
10.12	Second Amendment to the License, Development and Commercialization Agreement, dated September 28, 2021, by and between Mersana Therapeutics, Inc. and Recepta Biopharma S.A. (incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q, File No. 001-38129, filed on November 9, 2021).
10.13+	Agreement Regarding LICR Technology, dated July 9, 2015, by and between Ludwig Institute for Cancer Research, Recepta Biopharma S.A. and Mersana Therapeutics, Inc. (incorporated by reference to Exhibit 10.9 to the Company's Form S-1, File No. 333-218412, filed on June 1, 2017).
10.14	Loan and Security Agreement, dated October 29, 2021, by and between Oxford Finance LLC, Silicon Valley Bank and Mersana Therapeutics, Inc.
10.15	Amended and Restated Commercial License and Option Agreement, dated November 23, 2021, by and between Synaffix B.V. and Mersana Therapeutics, Inc.
10.16†	Amended and Restated Offer Letter, by and between Mersana Therapeutics, Inc. and Anna Protopapas, dated March 17, 2017 (incorporated by reference to Exhibit 10.16 to the Company's Form S-1, File No. 333-218412, filed on June 1, 2017).
10.17†	Offer Letter, by and between Mersana Therapeutics, Inc. and Arvin Yang, dated November 5, 2020 (incorporate by reference to Exhibit 10.2 to the Company's Form 10-Q, File No. 001-38129, filed on May 10, 2021).
10.18†	Offer Letter, by and between Mersana Therapeutics, Inc. and Brian DeSchuytner, dated June 10, 2019 (incorporated by reference to Exhibit 10.3 to the Company's Form 10-Q, File No. 001-38129, filed on May 8, 2020).
10.19†	Amended and Restated Offer Letter, by and between Mersana Therapeutics, Inc. and Michael Kaufman, dated March 8, 2017 (incorporated by reference to Exhibit 10.3 to the Company's Form 10-Q, File No. 001-38129, filed on May 10, 2021).
10.20†	Amended and Restated Offer Letter, by and between Mersana Therapeutics, Inc. and Timothy B. Lowinger, dated March 8 (incorporated by reference to Exhibit 10.18 to the Company's Form S-1, File No. 333-218412, filed on June 1, 2017).
10.21†	2007 Stock Incentive Plan, as amended (incorporated by reference to Exhibit 10.19 to the Company's Form S-1, File No. 333-218412, filed on June 1, 2017).
10.22†	Form of Incentive Stock Option under the 2007 Stock Incentive Plan (incorporated by reference to Exhibit 10.20 to the Company's Form S-1, File No. 333-218412, filed on June 1, 2017).
10.23†	Form of Nonqualified Stock Option under the 2007 Stock Incentive Plan (incorporated by reference to Exhibit 10.21 to the Company's Form S-1, File No. 333-218412, filed on June 1, 2017).
10.24†	2017 Stock Incentive Plan (incorporated by reference to Exhibit 10.22 to the Company's Form S-1/A, File No. 333-218412, filed on June 16, 2017).
10.25†	Form of Incentive Stock Option under the 2017 Stock Incentive Plan (incorporated by reference to Exhibit 10.23 to the Company's Form S-1/A, File No. 333-218412, filed on June 16, 2017).
10.26†	Form of Nonqualified Stock Option under the 2017 Stock Incentive Plan (incorporated by reference to Exhibit 10.24 to the Company's Form S-1/A, File No. 333-218412, filed on June 16, 2017).
10.27†	Form of Restricted Stock Unit under the 2017 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q, File No. 333-38129, filed on August 6, 2021).
10.28†	2022 Inducement Stock Incentive Plan
10.29†	Form of Inducement Restricted Stock Unit under the 2022 Inducement Stock Incentive Plan

10.30†	Form of Non-statutory Stock Option under the 2022 Inducement Stock Incentive Plan
10.31†	2017 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.25 to the Company's Form S-1/A, File No. 333-218412, filed on June 16, 2017).
10.32†	2017 Cash Bonus Plan (incorporated by reference to Exhibit 10.26 to the Company's Form S-1/A, File No. 333-218412, filed on June 16, 2017).
21.1*	Subsidiaries of Mersana Therapeutics, Inc.
23.1*	Consent of Ernst & Young LLP.
31.1*	Certification pursuant to Section 302 of Sarbanes Oxley Act of 2002 by Chief Executive Officer.
31.2*	Certification pursuant to Section 302 of Sarbanes Oxley Act of 2002 by Chief Financial Officer.
32.1**	Certification of periodic financial report pursuant to Section 906 of Sarbanes Oxley Act of 2002 by Chief Executive Officer and Chief Financial Officer.
101	The following financial and related information from Mersana Therapeutics, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2021, formatted in Inline eXtensible Business Reportable Language (iXBRL) includes: (i) the Consolidated Balance Sheet; (ii) the Consolidated Statement of Operations and Comprehensive Loss; (iii) the Consolidated Statement of Changes in Stockholders' Equity; (iv) the Consolidated Statement of Cash Flows; and, (v) Notes to Consolidated Financial Statements.
104	The cover page from the Company's Annual Report on Form 10-K for the year ended December 31, 2021, formatted in Inline XBRL (contained in Exhibit 101).

* Filed herewith.
** Furnished herewith.
† Indicates a management contract or compensatory plan.
+ Portions of this exhibit (indicated by asterisks) have been omitted pursuant to a request for confidential treatment and this exhibit has been submitted separately to the Securities and Exchange Commission.

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.

Mersana Therapeutics, Inc.

Date: February 28, 2022

/s/ Anna Protopapas

Anna Protopapas
President and Chief Executive Officer

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

Signature	Title	Date
/s/ ANNA PROTOPAPAS Anna Protopapas	President, Chief Executive Officer and Director (Principal Executive Officer)	February 28, 2022
/s/ BRIAN DESCHUYTNER Brian DeSchuytner	Chief Financial Officer (Principal Financial Officer)	February 28, 2022
/s/ ASHISH MANDELIA Ashish Mandelia	Vice President, Controller (Principal Accounting Officer)	February 28, 2022
/s/ DAVID MOTT David Mott	Chairman of the Board	February 28, 2022
/s/ KRISTEN HEGE Kristen Hege, M.D.	Director	February 28, 2022
/s/ ANDREW A. F. HACK Andrew A. F. Hack, M.D., Ph.D.	Director	February 28, 2022
/s/ LAWRENCE M. ALLEVA Lawrence M. Alleva	Director	February 28, 2022
/s/ WILLARD H. DERE, M.D. Willard H. Dere, M.D.	Director	February 28, 2022
/s/ MARTIN H. HUBER, M.D. Martin H. Huber, M.D.	Director	February 28, 2022
/s/ ALLENE M. DIAZ Allene M. Diaz	Director	February 28, 2022

Certain identified information has been excluded from the exhibit because it is both (i) not material and (ii) is the type of information that the registrant treats as private or confidential. Double asterisks demote omissions.

LOAN AND SECURITY AGREEMENT

THIS LOAN AND SECURITY AGREEMENT (as the same may from time to time be amended, modified, supplemented or restated, this "**Agreement**") dated as of October 29, 2021 (the "**Effective Date**") among OXFORD FINANCE LLC, a Delaware limited liability company with an office located at 115 South Union Street, Suite 300, Alexandria, VA 22314 ("**Oxford**"), as collateral agent (in such capacity, "**Collateral Agent**"), the Lenders listed on Schedule 1.1 hereof or otherwise a party hereto from time to time including Oxford in its capacity as a Lender and SILICON VALLEY BANK, a California corporation with an office located at 275 Grove Street, Suite 2-200, Newton, MA 02466 ("**Bank**" or "**SVB**") (each a "**Lender**" and collectively, the "**Lenders**"), and MERSANA THERAPEUTICS, INC., a Delaware corporation with offices located at 840 Memorial Drive, Cambridge, MA 02139 ("**Borrower**"), provides the terms on which the Lenders shall lend to Borrower and Borrower shall repay the Lenders. The parties agree as follows:

1. ACCOUNTING AND OTHER TERMS

1.1 Accounting terms not defined in this Agreement shall be construed in accordance with GAAP. Calculations and determinations must be made in accordance with GAAP. Capitalized terms not otherwise defined in this Agreement shall have the meanings set forth in Section 13. All other terms contained in this Agreement, unless otherwise indicated, shall have the meaning provided by the Code to the extent such terms are defined therein. All references to "**Dollars**" or "**$**" are United States Dollars, unless otherwise noted.

2. LOANS AND TERMS OF PAYMENT

2.1 Promise to Pay. Borrower hereby unconditionally promises to pay each Lender, the outstanding principal amount of all Term Loans advanced to Borrower by such Lender and accrued and unpaid interest thereon and any other amounts due hereunder as and when due in accordance with this Agreement.

2.2 Term Loans.

(a) Availability.

(i) Subject to the terms and conditions of this Agreement, the Lenders agree, severally and not jointly, during the Term A Draw Period, to make term loans to Borrower in an aggregate amount of up to Sixty Million Dollars ($60,000,000.00) to be disbursed in an amount equal to Twenty-Five Million Dollars ($25,000,000.00) on the Effective Date according to each Lender's Term A Loan Commitment as set forth on Schedule 1.1 hereto, with the remaining Thirty-Five Million Dollars ($35,000,000.00) available to be disbursed, upon Borrower's request, in up to three (3) additional single advances according to each Lender's Term A Loan Commitment as set forth on Schedule 1.1 hereto (such term loans on the Effective Date and thereafter are hereinafter referred to singly as a "**Term A Loan**", and collectively as the "**Term A Loans**"). Each disbursement of Term A Loans after the Effective Date shall be in an aggregate amount of at least Five Million Dollars ($5,000,000.00) and, unless the entire remaining amount of the Term A Loan Commitment will be disbursed at such disbursement, in a denomination that is a whole number multiple of Five Million Dollars ($5,000,000.00). After repayment, no Term A Loan may be re-borrowed.

(ii) Subject to the terms and conditions of this Agreement and upon Borrower's request, the Lenders agree, severally and not jointly, during the Term B Draw Period, to make term loans to Borrower in an aggregate amount equal to Ten Million Dollars ($10,000,000.00) and disbursed in a single advance according to each Lender's Term B Loan Commitment as set forth on Schedule 1.1 hereto (such term loans are hereinafter referred to singly as a "**Term B Loan**", and collectively as the "**Term B Loans**"). After repayment, no Term B Loan may be re-borrowed.

(iii) Subject to the terms and conditions of this Agreement and upon Borrower's request, the Lenders agree, severally and not jointly, during the Term C Draw Period, to make term loans to Borrower in an aggregate amount equal to Ten Million Dollars ($10,000,000.00) and disbursed in a single advance according to each Lender's Term C Loan Commitment as set forth on Schedule 1.1 hereto (such term loans are hereinafter referred to singly as a "**Term C Loan**", and collectively as the "**Term C Loans**"). After repayment, no Term C Loan may be re-borrowed.

(iv) Subject to the terms and conditions of this Agreement, the Lenders may, in their sole discretion, agree to make term loans to Borrower prior to the Amortization Date in an aggregate amount equal to Twenty Million Dollars ($20,000,000.00) in a single advance and, if made, according to a commitment schedule to be provided by the Lenders prior to the Funding Date of such term loans (such term loans are hereinafter referred

to singly as a "**Term D Loan**", and collectively as the "**Term D Loans**"; each Term A Loan, Term B Loan, Term C Loan or Term D Loan is hereinafter referred to singly as a "**Term Loan**" and the Term A Loans, the Term B Loans, the Term C Loans and the Term D Loans are hereinafter referred to collectively as the "**Term Loans**"). After repayment, no Term D Loan may be re-borrowed.

(b) Repayment. Borrower shall make monthly payments of interest only commencing on the first (1st) Payment Date following the Funding Date of each Term Loan, and continuing on the Payment Date of each successive month thereafter through and including the Payment Date immediately preceding the Amortization Date. Borrower agrees to pay, on the Funding Date of each Term Loan, any initial partial monthly interest payment otherwise due for the period between the Funding Date of such Term Loan and the first Payment Date thereof. Commencing on the Amortization Date, and continuing on the Payment Date of each month thereafter, Borrower shall make consecutive equal monthly payments of principal, together with applicable interest, in arrears, to each Lender, as calculated by Collateral Agent (which calculations shall be deemed correct absent manifest error) based upon: (1) the amount of such Lender's Term Loan, (2) the effective rate of interest, as determined in Section 2.3(a), and (3) a repayment schedule equal to (y) twenty-four (24) months if the Amortization Date is November 1, 2024 and (z) twelve (12) months if the Amortization Date is November 1, 2025. All unpaid principal and accrued and unpaid interest with respect to each Term Loan is due and payable in full on the Maturity Date. Each Term Loan may only be prepaid in accordance with Sections 2.2(c) and 2.2(d).

(c) Mandatory Prepayments. If the Term Loans are accelerated following the occurrence of an Event of Default, Borrower shall immediately pay to Lenders, payable to each Lender in accordance with its respective Pro Rata Share, an amount equal to the sum of: (i) all outstanding principal of the Term Loans plus accrued and unpaid interest thereon through the prepayment date, (ii) the Final Payment, (iii) the Prepayment Fee, plus (iv) all other Obligations that are due and payable, including Lenders' Expenses and interest at the Default Rate with respect to any past due amounts. Notwithstanding (but without duplication with) the foregoing, on the Maturity Date, if the Final Payment had not previously been paid in full in connection with the prepayment of the Term Loans in full, Borrower shall pay to Collateral Agent, for payment to each Lender in accordance with its respective Pro Rata Share, the Final Payment in respect of the Term Loans.

(d) Permitted Prepayment of Term Loans.

(i) Borrower shall have the option at any time to prepay all, but not less than all, of the Term Loans advanced by the Lenders under this Agreement, provided Borrower (i) provides written notice to Collateral Agent of its election to prepay the Term Loans at least ten (10) days prior to such prepayment, and (ii) pays to the Lenders on the date of such prepayment, payable to each Lender in accordance with its respective Pro Rata Share, an amount equal to the sum of (A) all outstanding principal of the Term Loans plus accrued and unpaid interest thereon through the prepayment date, (B) the Final Payment, (C) the Prepayment Fee, plus (D) all other Obligations that are due and payable, including Lenders' Expenses and interest at the Default Rate with respect to any past due amounts.

(ii) Notwithstanding anything herein to the contrary, Borrower shall also have the option to prepay part of the Term Loans advanced by the Lenders under this Agreement at any time, provided Borrower (i) shall make no more than two (2) prepayments during the life of this Agreement, (ii) provides written notice of its election to prepay the Term Loans at least ten (10) days prior to such prepayment, (iii) prepays such part of the Term Loans in a denomination that is not less than Ten Million Dollars ($10,000,000.00) or, if in excess thereof, in integral whole number multiples of One Million Dollars ($1,000,000.00), and (iv) pays to the Lenders on the date of such prepayment, payable to each Lender in accordance with its respective Pro Rata Share, an amount equal to the sum of (A) the portion of outstanding principal of such Term Loans plus all accrued and unpaid interest thereon through the prepayment date, (B) the applicable Final Payment, and (C) all other Obligations that are then due and payable, including Lenders' Expenses and interest at the Default Rate with respect to any past due amounts, (D) the applicable Prepayment Fee with respect to the portion of such Term Loans being prepaid, and (E) a portion of any fee that would have otherwise been due pursuant to Section 2.2(d)(i). For the purposes of clarity, any partial prepayment shall be applied pro-rata to all outstanding amounts under each Term Loan, and shall be applied pro-rata within each Term Loan tranche to reduce amortization payments under Section 2.2(b) on a pro-rata basis.

2.3 Payment of Interest on the Credit Extensions.

(a) Interest Rate. Subject to Section 2.3(b), the principal amount outstanding under the Term Loans shall accrue interest at a floating per annum rate equal to the Basic Rate, determined by Collateral Agent on the Funding Date of the applicable Term Loan and monthly thereafter, which interest shall be payable monthly in arrears in accordance with Sections 2.2(b) and 2.3(e). Interest shall accrue on each Term Loan commencing on, and including, the Funding Date of such Term Loan, and shall accrue on the principal amount outstanding under such Term Loan through and including the day on which such Term Loan is paid in full.

(b) Default Rate. Immediately upon the occurrence and during the continuance of an Event of Default, Obligations shall accrue interest at a floating per annum rate equal to the rate that is otherwise applicable thereto plus five percentage points (5.00%) (the "**Default Rate**"). Payment or acceptance of the increased interest rate provided in this Section 2.3(b) is not a permitted alternative to timely payment and shall not constitute a waiver of any Event of Default or otherwise prejudice or limit any rights or remedies of Collateral Agent.

(c) 360-Day Year. Interest shall be computed on the basis of a three hundred sixty (360) day year, and the actual number of days elapsed.

(d) Debit of Accounts. Collateral Agent and each Lender may debit (or ACH) any deposit accounts, maintained by Borrower or any of its Subsidiaries, including the Designated Deposit Account, for principal and interest payments or any other amounts Borrower owes Collateral Agent or the Lenders under the Loan Documents when due. Any such debits (or ACH activity) shall not constitute a set-off. Without limiting the foregoing, Collateral Agent and each Lender shall use commercially reasonable efforts to notify Borrower for the reasons of debiting of any amounts (other than principal and interest payments) debited from Borrower's deposit accounts in respect of this Agreement after such debt has been made; provided, however, failure to provide such notice shall not be considered a breach of any provision hereof by Collateral Agent or any Lender.

(e) Payments. Except as otherwise expressly provided herein, all payments by Borrower under the Loan Documents shall be made to the respective Lender to which such payments are owed, at such Lender's office in immediately available funds on the date specified herein. Unless otherwise provided, interest is payable monthly on the Payment Date of each month. Payments of principal and/or interest received after 2:00 p.m. Eastern time are considered received at the opening of business on the next Business Day. When a payment is due on a day that is not a Business Day, the payment is due the next Business Day and additional fees or interest, as applicable, shall continue to accrue until paid. All payments to be made by Borrower hereunder or under any other Loan Document, including payments of principal and interest, and all fees, expenses, indemnities and reimbursements, shall be made without set-off, recoupment or counterclaim, in lawful money of the United States and in immediately available funds.

2.4 Secured Promissory Notes. The Term Loans shall be evidenced by a Secured Promissory Note or Notes in the form attached as Exhibit D hereto (each a "**Secured Promissory Note**"), and shall be repayable as set forth in this Agreement. Borrower irrevocably authorizes each Lender to make or cause to be made, on or about the Funding Date of any Term Loan or at the time of receipt of any payment of principal on such Lender's Secured Promissory Note, an appropriate notation on such Lender's Secured Promissory Note Record reflecting the making of such Term Loan or (as the case may be) the receipt of such payment. The outstanding amount of each Term Loan set forth on such Lender's Secured Promissory Note Record shall be prima facie evidence of the principal amount thereof owing and unpaid to such Lender, but the failure to record, or any error in so recording, any such amount on such Lender's Secured Promissory Note Record shall not limit or otherwise affect the obligations of Borrower under any Secured Promissory Note or any other Loan Document to make payments of principal of or interest on any Secured Promissory Note when due. Upon receipt of an affidavit of an officer of a Lender as to the loss, theft, destruction, or mutilation of its Secured Promissory Note**,** Borrower shall issue, in lieu thereof, a replacement Secured Promissory Note in the same principal amount thereof and of like tenor.

2.5 Fees. Borrower shall pay to Collateral Agent:

(a) Facility Fee. A non-refundable facility fee (the "**Facility Fee**"), to be shared between the Lenders pursuant to their respective Commitment Percentages, due and payable as follows: (i) with respect to the Term A Loans made by the Lenders on the Effective Date, One Hundred Twenty-Five Thousand Dollars ($125,000.00), which shall be fully earned and due and payable on the Effective Date, and (ii) with respect to each Term Loan made by the Lenders after the Effective Date, an amount equal to the product of (A) one half of one percent (0.50%) and (B) the original principal amount of such Term Loan, which shall be fully earned and due and payable on the Funding Date of such Term Loan;

(b) Final Payment. The Final Payment, when due hereunder, to be shared between the Lenders in accordance with their respective Pro Rata Shares;

(c) Prepayment Fee. The Prepayment Fee, when due hereunder, to be shared between the Lenders in accordance with their respective Pro Rata Shares;

(d) Lenders' Expenses. All Lenders' Expenses (including reasonable and documented out-of-pocket attorneys' fees and expenses for documentation and negotiation of this Agreement) incurred through and after the Effective Date, when due; and

(e) Good Faith Deposit. Borrower has paid to Collateral Agent a deposit of [**] Dollars ($[**]) (the "**Good Faith Deposit**"), to initiate Collateral Agent's and Lenders' due diligence review and documentation process. The Good Faith Deposit will be used to pay Lenders' Expenses due on the Effective Date, with the balance, if any, towards the Facility Fee due under Section 2.5(a) hereof; provided, however, Borrower shall be responsible for the entire amount of Lenders' Expenses payable under Section 2.5(d) hereof.

2.6 Withholding. Payments received by the Lenders from Borrower hereunder will be made free and clear of and without deduction for any and all present or future taxes, levies, imposts, duties, deductions, withholdings, assessments, fees or other charges imposed by any governmental authority (including any interest, additions to tax or penalties applicable thereto, collectively, "**Taxes**"). Specifically, however, if at any time any Governmental Authority, applicable law, regulation or international agreement requires Borrower to make any withholding or deduction from any such payment or other sum payable hereunder to the Lenders, Borrower hereby covenants and agrees that the amount due from Borrower with respect to such payment or other sum payable hereunder will be increased to the extent necessary to ensure that, after the making of such required withholding or deduction, each Lender receives a net sum equal to the sum which it would have received had no withholding or deduction been required and Borrower shall pay the full amount withheld or deducted to the relevant Governmental Authority; provided, however, Borrower shall not be required to pay any additional amount to any Lender with respect to Excluded Taxes. Borrower will, upon request, furnish the Lenders with proof reasonably satisfactory to the Lenders indicating that Borrower has made such withholding payment; provided, however, that Borrower need not make any withholding payment if the amount or validity of such withholding payment is contested in good faith by appropriate and timely proceedings and as to which payment in full is bonded or reserved against by Borrower. The agreements and obligations of Borrower contained in this Section 2.6 shall survive the termination of this Agreement.

On the date of this Agreement, each Lender shall deliver to Borrower a complete and properly executed IRS Form W-9. If any assignee of a Lender's rights under Section 12.1 of this Agreement is not a "United States Person" as defined in Section 7701(a)(30) of the U.S. Internal Revenue Code ("Non-U.S. Lender"), such Non-U.S. Lender shall, upon becoming party to this Agreement, deliver to Borrower a complete and properly executed IRS Form W-8BEN-E (or W-8BEN, as applicable), W-8ECI or W-8IMY, as appropriate, or any successor form prescribed by the IRS, certifying that such Non-U.S. Lender is entitled to an exemption from U.S. withholding tax on interest and other amounts payable under this Agreement. Notwithstanding the foregoing, (i) Borrower shall not be required to pay any additional amount to any Non-U.S. Lender hereunder if such Non-U.S. Lender fails or is unable to deliver the forms, certificates or other evidence described in the preceding sentence, unless such Non-U.S. Lender's failure or inability to deliver such forms is the result of any change in any applicable law, treaty or governmental rule, or any change in the interpretation thereof after such Non-U.S. Lender became a party to this Agreement and (ii) Borrower shall not be required to pay any additional amount to any Non-U.S. Lender hereunder with respect to taxes imposed under Sections 1471 through 1474 of the U.S. Internal Revenue Code, as of the date of this Agreement (or any amended or successor version that is substantively comparable and not materially more onerous to comply with) and any current or future regulations or official interpretations thereof.

3. CONDITIONS OF LOANS

3.1 Conditions Precedent to Initial Credit Extension. Each Lender's obligation to make a Term A Loan is subject to the condition precedent that Collateral Agent and each Lender shall consent to or shall have received, in form and substance satisfactory to Collateral Agent and each Lender, such documents, and completion of such other matters, as Collateral Agent and each Lender may reasonably deem necessary or appropriate, including, without limitation:

(a) original Loan Documents, each duly executed by Borrower and each Subsidiary, as applicable;

(b) duly executed original Control Agreements with respect to any Collateral Accounts maintained by Borrower or any of its Subsidiaries which require a Control Agreement pursuant to Section 6.6;

(c) duly executed original Secured Promissory Notes in favor of each Lender according to its Term A Loan Commitment Percentage in respect of the Term A Loans made by such Lender on the Effective Date;

(d) subject to the Post Closing Letter, the certificate(s) for the Shares of Mersana Securities, together with Assignment(s) Separate from Certificate, duly executed in blank;

(e) the Operating Documents and good standing certificates of Borrower and its Subsidiaries certified by the Secretary of State (or equivalent agency) of Borrower's and such Subsidiaries' jurisdiction of

organization or formation and each jurisdiction in which Borrower and each Subsidiary is qualified to conduct business, each as of a date no earlier than thirty (30) days prior to the Effective Date**;**

(f) a completed Perfection Certificate for Borrower and each of its Subsidiaries;

(g) the Annual Projections, for the current calendar year;

(h) duly executed original officer's certificate for Borrower and each Subsidiary that is a party to the Loan Documents, relating to the Operating Documents, corporate authorizations and other matters, in a form acceptable to Collateral Agent and the Lenders;

(i) certified copies, dated as of date no earlier than thirty (30) days prior to the Effective Date, of financing statement searches, as Collateral Agent shall request, accompanied by written evidence (including any UCC termination statements) that the Liens indicated in any such financing statements either constitute Permitted Liens or have been or, in connection with the initial Credit Extension, will be terminated or released;

(j) subject to the Post Closing Letter, a landlord's consent executed in favor of Collateral Agent in respect of all of Borrower's and each Subsidiaries' leased locations;

(k) subject to the Post Closing Letter, a bailee waiver executed in favor of Collateral Agent in respect of each third party bailee with respect to locations in the United States where Borrower or any Subsidiary maintains Collateral having a book value in excess of Three Million Dollars ($3,000,000.00);

(l) a duly executed legal opinion of counsel to Borrower dated as of the Effective Date;

(m) evidence satisfactory to Collateral Agent and the Lenders that the insurance policies required by Section 6.5 hereof are in full force and effect, together with appropriate evidence showing loss payable and/or additional insured clauses or endorsements in favor of Collateral Agent, for the ratable benefit of the Lenders;

(n) a payoff letter from Silicon Valley Bank in respect of the Existing Indebtedness;

(o) evidence that (i) the Liens securing the Existing Indebtedness will be terminated and (ii) the documents and/or filings evidencing the perfection of such Liens, including without limitation any financing statements and/or control agreements, have or will, concurrently with the initial Credit Extension, be terminated; and

(p) payment of the fees and Lenders' Expenses then due as specified in Section 2.5 hereof.

3.2 Conditions Precedent to all Credit Extensions. The obligation of each Lender to make each Credit Extension, including the initial Credit Extension, is subject to the following conditions precedent:

(a) receipt by (i) the Lenders of an executed Disbursement Letter in the form of Exhibit B-1 attached hereto; and (ii) SVB of an executed Loan Payment/Advance Request Form in the form of Exhibit B-2 attached hereto;

(b) the representations and warranties in Section 5 hereof shall be true, accurate and complete in all material respects on the date of the Disbursement Letter (and the Loan Payment/Advance Request Form) and on the Funding Date of each Credit Extension; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true, accurate and complete in all material respects as of such date, and no Event of Default shall have occurred and be continuing or result from the Credit Extension. Each Credit Extension is Borrower's representation and warranty on that date that the representations and warranties in Section 5 hereof are true, accurate and complete in all material respects; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true, accurate and complete in all material respects as of such date;

(c) in such Lender's sole but reasonable discretion, there has not been any Material Adverse Change;

(d) to the extent not delivered at the Effective Date, duly executed original Secured Promissory Notes, in number, form and content acceptable to each Lender, and in favor of each Lender according to its Commitment Percentage, with respect to each Credit Extension made by such Lender after the Effective Date;

(e) payment of the fees and Lenders' Expenses then due as specified in Section 2.5 hereof; and

(f) with respect to the Term B Loans only, in such Lender's sole discretion, the [**].

3.3 Covenant to Deliver. Borrower agrees to deliver to Collateral Agent and the Lenders each item required to be delivered to Collateral Agent under this Agreement as a condition precedent to any Credit Extension. Borrower expressly agrees that a Credit Extension made prior to the receipt by Collateral Agent or any Lender of any such item shall not constitute a waiver by Collateral Agent or any Lender of Borrower's obligation to deliver such item, and any such Credit Extension in the absence of a required item shall be made in each Lender's sole discretion.

3.4 Procedures for Borrowing. Subject to the prior satisfaction of all other applicable conditions to the making of a Term Loan set forth in this Agreement, to obtain a Term Loan, Borrower shall notify the Lenders (which notice shall be irrevocable) by electronic mail, facsimile, or telephone by 2:00 p.m. Eastern time five (5) Business Days prior to the date the Term Loan is to be made. Together with any such electronic, facsimile or telephonic notification, Borrower shall deliver to the Lenders by electronic mail or facsimile a completed Disbursement Letter (and the Loan Payment/Advance Request Form, with respect to SVB) executed by a Responsible Officer or his or her designee. The Lenders may rely on any telephone notice given by a person whom a Lender reasonably believes is a Responsible Officer or designee. On the Funding Date, each Lender shall credit and/or transfer (as applicable) to the Designated Deposit Account, an amount equal to its Term Loan Commitment.

4. CREATION OF SECURITY INTEREST

4.1 Grant of Security Interest. Borrower hereby grants Collateral Agent, for the ratable benefit of the Lenders, to secure the payment and performance in full of all of the Obligations, a continuing security interest in, and pledges to Collateral Agent, for the ratable benefit of the Lenders, the Collateral, wherever located, whether now owned or hereafter acquired or arising, and all proceeds and products thereof. Borrower represents, warrants, and covenants that the security interest granted herein is and shall at all times continue to be a first priority perfected security interest in the Collateral, subject only to Permitted Liens that are permitted by the terms of this Agreement to have priority to Collateral Agent's Lien. If Borrower shall acquire a commercial tort claim (as defined in the Code) with a value in excess of Two Hundred Fifty Thousand Dollars ($250,000.00), Borrower, shall promptly notify Collateral Agent in a writing signed by Borrower, as the case may be, of the general details thereof (and further details as may be required by Collateral Agent) and grant to Collateral Agent, for the ratable benefit of the Lenders, in such writing a security interest therein and in the proceeds thereof, all upon the terms of this Agreement, with such writing to be in form and substance reasonably satisfactory to Collateral Agent.

Borrower acknowledges that it previously has entered, and/or may in the future enter, into Bank Services Agreements with Bank. Regardless of the terms of any Bank Services Agreement, Borrower agrees that any amounts Borrower owes Bank thereunder shall be deemed to be Obligations hereunder and that it is the intent of Borrower and Bank to have all such Obligations secured by the first priority perfected security interest in the Collateral granted herein (subject only to Permitted Liens that may have superior priority to Bank's Lien in this Agreement).

If this Agreement is terminated, Collateral Agent's Lien in the Collateral shall continue until the Obligations (other than inchoate indemnity obligations and any other obligations which, by their terms, are to survive the termination of this Agreement) are repaid in full in cash. Upon payment in full in cash of the Obligations (other than inchoate indemnity obligations and any other obligations which, by their terms, are to survive the termination of this Agreement) and at such time as the Lenders' obligation to make Credit Extensions has terminated, Collateral Agent shall, at the sole cost and expense of Borrower, release its Liens in the Collateral and all rights therein shall revert to Borrower. In the event (x) all Obligations (other than inchoate indemnity obligations and any other obligations which, by their terms, are to survive the termination of this Agreement), except for Bank Services, are satisfied in full, and (y) this Agreement is terminated, Bank shall terminate the security interest granted herein upon Borrower providing cash collateral acceptable to Bank in its good faith business judgment for Bank Services, if any. In the event such Bank Services consist of outstanding Letters of Credit, Borrower shall provide to Bank cash collateral in an amount equal to (x) if such Letters of Credit are denominated in Dollars, then one hundred five percent (105.00%); and (y) if such Letters of Credit are denominated in a Foreign Currency, then one hundred ten percent (110.00%), of the Dollar Equivalent of the face amount of all such Letters of

Credit plus all interest, fees, and costs due or to become due in connection therewith (as estimated by Bank in its good faith business judgment), to secure all of the Obligations relating to such Letters of Credit.

4.2 Authorization to File Financing Statements. Borrower hereby authorizes Collateral Agent to file financing statements or take any other action required to perfect Collateral Agent's security interests in the Collateral, without notice to Borrower, with all appropriate jurisdictions to perfect or protect Collateral Agent's interest or rights under the Loan Documents, including a notice that any disposition of the Collateral, except to the extent permitted by the terms of this Agreement, by Borrower, or any other Person, shall be deemed to violate the rights of Collateral Agent under the Code.

4.3 Pledge of Collateral. Borrower hereby pledges, assigns and grants to Collateral Agent, for the ratable benefit of the Lenders, a security interest in all the Shares, together with all proceeds and substitutions thereof, all cash, stock and other moneys and property paid thereon, all rights to subscribe for securities declared or granted in connection therewith, and all other cash and non-cash proceeds of the foregoing, as security for the performance of the Obligations. On the Effective Date, or, to the extent not certificated as of the Effective Date, within ten (10) days of the certification of any Shares, the certificate or certificates for the Shares will be delivered to Collateral Agent, accompanied by an instrument of assignment duly executed in blank by Borrower. To the extent required by the terms and conditions governing the Shares, Borrower shall cause the books of each entity whose Shares are part of the Collateral and any transfer agent to reflect the pledge of the Shares. Upon the occurrence and during the continuance of an Event of Default hereunder, Collateral Agent may effect the transfer of any securities included in the Collateral (including but not limited to the Shares) into the name of Collateral Agent and cause new (as applicable) certificates representing such securities to be issued in the name of Collateral Agent or its transferee. Borrower will execute and deliver such documents, and take or cause to be taken such actions, as Collateral Agent may reasonably request to perfect or continue the perfection of Collateral Agent's security interest in the Shares. Unless an Event of Default shall have occurred and be continuing, Borrower shall be entitled to exercise any voting rights with respect to the Shares and to give consents, waivers and ratifications in respect thereof, provided that no vote shall be cast or consent, waiver or ratification given or action taken which would be inconsistent with any of the terms of this Agreement or which would constitute or create any violation of any of such terms. All such rights to vote and give consents, waivers and ratifications shall terminate upon the occurrence and continuance of an Event of Default.

5. REPRESENTATIONS AND WARRANTIES

Borrower represents and warrants to Collateral Agent and the Lenders as follows:

5.1 Due Organization, Authorization: Power and Authority. Borrower and each of its Subsidiaries is duly existing and in good standing as a Registered Organization in its jurisdictions of organization or formation and Borrower and each of its Subsidiaries is qualified and licensed to do business and is in good standing in any jurisdiction in which the conduct of its businesses or its ownership of property requires that it be qualified except where the failure to do so could not reasonably be expected to have a Material Adverse Change. In connection with this Agreement, Borrower and each of its Subsidiaries has delivered to Collateral Agent a completed perfection certificate signed by an officer of Borrower or such Subsidiary (each a "**Perfection Certificate**" and collectively, the "**Perfection Certificates**"). Borrower represents and warrants that (a) Borrower and each of its Subsidiaries' exact legal name is that which is indicated on its respective Perfection Certificate and on the signature page of each Loan Document to which it is a party; (b) Borrower and each of its Subsidiaries is an organization of the type and is organized in the jurisdiction set forth on its respective Perfection Certificate; (c) each Perfection Certificate accurately sets forth each of Borrower's and its Subsidiaries' organizational identification number or accurately states that Borrower or such Subsidiary has none; (d) each Perfection Certificate accurately sets forth Borrower's and each of its Subsidiaries' place of business, or, if more than one, its chief executive office as well as Borrower's and each of its Subsidiaries' mailing address (if different than its chief executive office); (e) except as may be set forth on its Perfection Certificate, Borrower and each of its Subsidiaries (and each of its respective predecessors) have not, in the past five (5) years, changed its jurisdiction of organization, organizational structure or type, or any organizational number assigned by its jurisdiction; and (f) all other information set forth on the Perfection Certificates pertaining to Borrower and each of its Subsidiaries, is accurate and complete (it being understood and agreed that Borrower and each of its Subsidiaries may from time to time update certain information in the Perfection Certificates (including the information set forth in clause (d) above) after the Effective Date to the extent Borrower is permitted by one or more specific provisions in this Agreement or any other Loan Document; such updated Perfection Certificates subject to the review and approval of Collateral Agent unless such facts, events or circumstances being updated first arose or occurred after the Effective Date and do not constitute a breach, default, or Event of Default under this Agreement or any other Loan Document. If Borrower or any of its Subsidiaries is not now a Registered Organization but later becomes one, Borrower shall notify Collateral Agent of such occurrence and provide Collateral Agent with such Person's organizational identification number within five (5) Business Days of receiving such organizational identification number.

The execution, delivery and performance by Borrower and each of its Subsidiaries of the Loan Documents to which it is a party have been duly authorized, and do not (i) conflict with any of Borrower's or such Subsidiaries' organizational documents, including its respective Operating Documents, (ii) contravene, conflict with, constitute a default under or violate any material Requirement of Law applicable thereto, (iii) contravene, conflict or violate any applicable order, writ, judgment, injunction, decree, determination or award of any Governmental Authority by which Borrower or such Subsidiary, or any of their property or assets may be bound or affected, (iv) require any action by, filing, registration, or qualification with, or Governmental Approval from, any Governmental Authority (except for filings with the Securities and Exchange Commission which do not require any consent by any Governmental Authority, such Governmental Approvals which have already been obtained and are in full force and effect or are being obtained pursuant to Section 6.1(b), or filings required to perfect the security interest granted herein) or (v) constitute an event of default under any material agreement by which Borrower or any of such Subsidiaries, or their respective properties, is bound. Neither Borrower nor any of its Subsidiaries is in default under any agreement to which it is a party or by which it or any of its assets is bound in which such default could reasonably be expected to have a Material Adverse Change.

5.2 Collateral.

(a) Borrower and each of its Subsidiaries have good title to, have rights in, and the power to transfer each item of the Collateral upon which it purports to grant a Lien under the Loan Documents, free and clear of any and all Liens except Permitted Liens, and neither Borrower nor any of its Subsidiaries have any Deposit Accounts, Securities Accounts, Commodity Accounts or other investment accounts other than the Collateral Accounts or the other investment accounts, if any, described in the Perfection Certificates delivered to Collateral Agent in connection herewith with respect of which Borrower or such Subsidiary has given Collateral Agent notice and taken such actions as are necessary to give Collateral Agent a perfected security interest therein to the extent required under this Agreement. The Accounts are bona fide, existing obligations of the Account Debtors.

(b) On the Effective Date, and except as disclosed on the Perfection Certificate (i) the Collateral is not in the possession of any third party bailee (such as a warehouse), and (ii) no such third party bailee possesses components of the Collateral in excess of Five Hundred Thousand Dollars ($500,000.00). None of the components of the Collateral (other than (1) inventory in transit, and (2) laptops (and related electronic computer equipment) and mobile phones) shall be maintained at locations other than as disclosed in the Perfection Certificates on the Effective Date or as permitted pursuant to Section 6.11.

(c) All unexpired Inventory is in all material respects of good quality, free from material defects, and all unexpired Inventory held out for sale is in all material respects of marketable quality.

(d) Borrower and each of its Subsidiaries is the sole owner of the Intellectual Property each respectively purports to solely own, free and clear of all Liens other than Permitted Liens. Except as noted on the Perfection Certificates, in connection with the Permitted License Amendment Transaction, or as otherwise disclosed pursuant to the terms of this Agreement (to the extent Borrower is permitted to take such action resulting in the applicable update by one or more specific provisions of this Agreement), neither Borrower nor any of its Subsidiaries is a party to, nor is bound by, any material license or other material agreement with respect to which Borrower or such Subsidiary is the licensee that (i) prohibits or otherwise restricts Borrower or its Subsidiaries from granting a security interest in Borrower's or such Subsidiaries' interest in such material license or other material agreement or any other property, or (ii) for which a default under or termination of could interfere with Collateral Agent's or any Lender's right to sell any Collateral. Borrower shall promptly (and in any event within ten (10) Business Days) provide written notice to Collateral Agent and each Lender of Borrower or any of its Subsidiaries entering into or becoming bound by any material license or other material agreement with respect to which Borrower or any Subsidiary is the licensee (other than over-the-counter software that is commercially available to the public).

5.3 Litigation. Except as disclosed (i) on the Perfection Certificates, or (ii) in accordance with Section 6.9 hereof, there are no actions, suits, investigations, or proceedings pending or, to the knowledge of the Responsible Officers, threatened in writing by or against Borrower or any of its Subsidiaries involving more than Two Hundred Fifty Thousand Dollars ($250,000.00).

5.4 No Material Deterioration in Financial Condition; Financial Statements. All consolidated financial statements for Borrower and its Subsidiaries, delivered to Collateral Agent fairly present, in conformity with GAAP, in all material respects the consolidated financial condition of Borrower and its Subsidiaries, and the consolidated results of operations of Borrower and its Subsidiaries (subject to normal year-end adjustments to reflect the non-cash impact of accounting for stock compensation or other non-cash equity items and the absence of footnotes) as of the dates and for the periods presented. There has not been any material deterioration in the

consolidated financial condition of Borrower and its Subsidiaries since the date of the most recent financial statements submitted to any Lender.

5.5 Solvency. Borrower is Solvent, and Borrower and each of its Subsidiaries, taken as a whole, is Solvent.

5.6 Regulatory Compliance. Neither Borrower nor any of its Subsidiaries is an "investment company" or a company "controlled" by an "investment company" under the Investment Company Act of 1940, as amended. Neither Borrower nor any of its Subsidiaries is engaged as one of its important activities in extending credit for margin stock (under Regulations X, T and U of the Federal Reserve Board of Governors). Borrower and each of its Subsidiaries has complied in all material respects with the Federal Fair Labor Standards Act. Neither Borrower nor any of its Subsidiaries is a "holding company" or an "affiliate" of a "holding company" or a "subsidiary company" of a "holding company" as each term is defined and used in the Public Utility Holding Company Act of 2005. Neither Borrower nor any of its Subsidiaries has violated any laws, ordinances or rules, the violation of which could reasonably be expected to have a Material Adverse Change. Neither Borrower's nor any of its Subsidiaries' properties or assets has been used by Borrower or such Subsidiary or, to Borrower's knowledge, by previous Persons, in disposing, producing, storing, treating, or transporting any hazardous substance other than in material compliance with applicable laws. Borrower and each of its Subsidiaries has obtained all consents, approvals and authorizations of, made all declarations or filings with, and given all notices to, all Governmental Authorities that are necessary to continue their respective businesses as currently conducted.

None of Borrower, any of its Subsidiaries, or any of Borrower's or its Subsidiaries' Affiliates or any of their respective agents acting or benefiting in any capacity in connection with the transactions contemplated by this Agreement is (i) in violation of any Anti-Terrorism Law, (ii) engaging in or conspiring to engage in any transaction that evades or avoids, or has the purpose of evading or avoiding or attempts to violate, any of the prohibitions set forth in any Anti-Terrorism Law, or (iii) is a Blocked Person. None of Borrower, any of its Subsidiaries, or to the knowledge of Borrower and any of their Affiliates or agents, acting or benefiting in any capacity in connection with the transactions contemplated by this Agreement, (x) conducts any business or engages in making or receiving any contribution of funds, goods or services to or for the benefit of any Blocked Person, or (y) deals in, or otherwise engages in any transaction relating to, any property or interest in property blocked pursuant to Executive Order No. 13224, any similar executive order or other Anti-Terrorism Law.

5.7 Investments. Neither Borrower nor any of its Subsidiaries owns any stock, shares, partnership interests or other equity securities except for Permitted Investments.

5.8 Tax Returns and Payments; Pension Contributions. Borrower and each of its Subsidiaries has timely filed or have timely obtained extensions for filing all required tax returns and reports, and Borrower and each of its Subsidiaries, has timely paid all foreign, federal, state, and local Taxes owed by Borrower and such Subsidiaries, in all jurisdictions in which Borrower or any such Subsidiary is subject to Taxes, including the United States, unless (a) such Taxes are being contested in accordance with the following sentence or (b) in the case of state or local Taxes, if such Taxes do not, individually or in the aggregate, exceed Fifty Thousand Dollars ($50,000.00). Borrower and each of its Subsidiaries, may defer payment of any contested Taxes, provided that Borrower or such Subsidiary, (a) in good faith contests its obligation to pay the Taxes by appropriate proceedings promptly and diligently instituted and conducted, (b) notifies Collateral Agent in writing of the commencement of, and any material development in, the proceedings, and (c) posts bonds or takes any other steps required to prevent the Governmental Authority levying such contested Taxes from obtaining a Lien upon any of the Collateral that is other than a "**Permitted Lien**." Neither Borrower nor any of its Subsidiaries is aware of any claims or adjustments proposed for any of Borrower's or such Subsidiaries', prior tax years which could result in additional Taxes becoming due and payable by Borrower or its Subsidiaries in excess of Fifty Thousand Dollars ($50,000.00), except to the extent that such Taxes are being contested in accordance with the immediately preceding sentence. Borrower and each of its Subsidiaries have paid all amounts necessary to fund all present pension, profit sharing and deferred compensation plans in accordance with their terms, and neither Borrower nor any of its Subsidiaries have, withdrawn from participation in, and have not permitted partial or complete termination of, or permitted the occurrence of any other event with respect to, any such plan which could reasonably be expected to result in any liability of Borrower or its Subsidiaries, including any liability to the Pension Benefit Guaranty Corporation or its successors or any other Governmental Authority.

5.9 Use of Proceeds. Borrower shall use the proceeds of the Credit Extensions solely as working capital and to fund its general business requirements in accordance with the provisions of this Agreement, and not for personal, family, household or agricultural purposes. A portion of the proceeds of the Term A Loans shall be used by Borrower to repay the Existing Indebtedness in full on the Effective Date.

5.10 Shares. Borrower has full power and authority to create a first lien on the Shares and no disability or contractual obligation exists that would prohibit Borrower from pledging the Shares pursuant to this Agreement. To Borrower's knowledge, there are no subscriptions, warrants, rights of first refusal or other restrictions on transfer relative to, or options exercisable with respect to the Shares. The Shares have been and will be duly authorized and validly issued, and are fully paid and non-assessable. To Borrower's knowledge, the Shares are not the subject of any present or threatened suit, action, arbitration, administrative or other proceeding, and Borrower knows of no reasonable grounds for the institution of any such proceedings.

5.11 Full Disclosure. No written representation, warranty or other statement of Borrower or any of its Subsidiaries in any certificate or written statement given to Collateral Agent or any Lender, as of the date such representation, warranty, or other statement was made, taken together with all such written certificates and written statements given to Collateral Agent or any Lender, contains any untrue statement of a material fact or omits to state a material fact necessary to make the statements contained in the certificates or statements not misleading in light of the circumstances under which they were made (it being recognized that the projections and forecasts provided by Borrower in good faith and based upon reasonable assumptions are not viewed as facts and that actual results during the period or periods covered by such projections and forecasts may differ from the projected or forecasted results).

5.12 Definition of "**Knowledge.**" For purposes of the Loan Documents, whenever a representation or warranty is made to Borrower's knowledge or awareness, to the "best of" Borrower's knowledge, or with a similar qualification, knowledge or awareness means the actual knowledge, after reasonable investigation, of the Responsible Officers.

6. AFFIRMATIVE COVENANTS

Borrower shall, and shall cause each of its Subsidiaries to, do all of the following:

6.1 Government Compliance.

(a) Maintain its and all its Subsidiaries' legal existence and good standing in their respective jurisdictions of organization and maintain qualification in each jurisdiction in which the failure to so qualify could reasonably be expected to have a Material Adverse Change. Comply with all laws, ordinances and regulations to which Borrower or any of its Subsidiaries is subject, the noncompliance with which could reasonably be expected to have a Material Adverse Change.

(b) Obtain and keep in full force and effect, all of the material Governmental Approvals necessary for the performance by Borrower and its Subsidiaries of their respective businesses and obligations under the Loan Documents and the grant of a security interest to Collateral Agent for the ratable benefit of the Lenders, in all of the Collateral. Borrower shall promptly notify Collateral Agent of any material Governmental Approvals obtained by Borrower or any of its Subsidiaries and unless otherwise requested by Collateral Agent, on or before the next Reporting Date, provide copies to Collateral Agent of such material Governmental Approvals.

6.2 Financial Statements, Reports, Certificates.

(a) Deliver to each Lender:

(i) as soon as available, but no later than forty-five (45) days after the last day of each fiscal quarter, a company prepared consolidated and consolidating balance sheet, income statement and cash flow statement covering the consolidated operations of Borrower and its Subsidiaries for such quarter certified by a Responsible Officer and in a form reasonably acceptable to Collateral Agent;

(ii) as soon as available, but no later than one hundred twenty (120) days after the last day of Borrower's fiscal year or within five (5) days of filing with the SEC, audited consolidated financial statements prepared under GAAP, consistently applied, together with an unqualified opinion (provided that such unqualified opinion may contain going concern explanatory language as it relates to Borrower's cash levels) on the financial statements from Ernst & Young LLP or another an independent certified public accounting firm acceptable to Collateral Agent in its reasonable discretion**;**

(iii) as soon as available after approval thereof by Borrower's Board of Directors, but no later than thirty (30) days after the last day of each of Borrower's fiscal years, Borrower's annual financial projections for the entire current fiscal year as approved by Borrower's Board of Directors, which such annual financial projections shall be set forth in a quarter-by-quarter format (such annual financial projections as originally delivered to Collateral Agent and the Lenders are referred to herein as the "**Annual Projections**"; provided that, any

revisions to the Annual Projections approved by Borrower's Board of Directors shall be delivered to Collateral Agent and the Lenders no later than seven (7) Business Days after such approval);

(iv) within five (5) days of delivery, copies of all statements, reports and notices made available to Borrower's security holders or holders of Subordinated Debt;

(v) Within five (5) Business Days of filing, all reports on Form 10-K, 10-Q and 8-K filed with the Securities and Exchange Commission,

(vi) prompt notice of (y) in the event that Borrower is no longer subject to the reporting requirements under the Securities Exchange Act of 1934, as amended, prompt notice of any material change to the capitalization table of Borrower, and (z) any amendments of the Operating Documents of Borrower or any of its Subsidiaries, together with any copies reflecting such amendments or changes with respect thereto;

(vii) prompt notice of any event that could reasonably be expected to materially and adversely affect the value of the Intellectual Property;

(viii) as soon as available, but no later than thirty (30) days after the last day of each month, copies of the month-end account statements for each Collateral Account maintained by Borrower or its Subsidiaries, which statements may be provided to Collateral Agent and each Lender by Borrower or directly from the applicable institution(s); and

(ix) other information as reasonably requested by Collateral Agent or any Lender.

Notwithstanding the foregoing, notices or documents required to be delivered pursuant to the terms hereof (to the extent any such information or documents are included in materials otherwise filed with the SEC) may be delivered electronically and if so delivered, shall be deemed to have been delivered on the date on which (i) Borrower posts such documents, or provides a link thereto, on Borrower's website on the internet at Borrower's website address, or (ii) on which such documents are posted on Borrower's behalf on the website of the Securities and Exchange Commission.

(b) No later than thirty (30) days after the last day of each month, deliver to each Lender, a duly completed Compliance Certificate signed by a Responsible Officer.

(c) Keep proper books of record and account in accordance with GAAP in all material respects, in which full, true and correct entries shall be made of all dealings and transactions in relation to its business and activities. Borrower shall, and shall cause each of its Subsidiaries to, allow, at the sole cost of Borrower (once in any given fiscal year unless an Event of Default has occurred and is continuing, in which case all such visits or inspections shall be at the cost of the Borrower), Collateral Agent or any Lender, during regular business hours upon reasonable prior notice (provided that no notice shall be required when an Event of Default has occurred and is continuing), to visit and inspect any of its properties, to examine and make abstracts or copies from any of its books and records, and to conduct a collateral audit and analysis of its operations and the Collateral. Such audits shall be conducted no more often than once every year unless (and more frequently if) an Event of Default has occurred and is continuing.

6.3 Inventory; Returns. Keep all unexpired Inventory in all material respects in good condition, free from material defects, and keep all unexpired Inventory held out for sale in all material respects in marketable condition. Returns and allowances between Borrower, or any of its Subsidiaries, and their respective Account Debtors shall follow Borrower's, or such Subsidiary's, customary practices as they exist at the Effective Date. Borrower must promptly notify Collateral Agent and the Lenders of all returns, recoveries, disputes and claims that involve more than Five Hundred Thousand Dollars ($500,000.00), individually or in the aggregate, in any calendar year.

6.4 Taxes; Pensions. Timely file or obtain extensions for filing and require each of its Subsidiaries to timely file, all required tax returns and reports and timely pay, and require each of its Subsidiaries to timely pay, all foreign, federal, state, and local Taxes, assessments, deposits and contributions owed by Borrower or its Subsidiaries, except for (i) deferred payment of any Taxes contested pursuant to the terms of Section 5.8 hereof, and shall deliver to Lenders, on demand, appropriate certificates attesting to such payments, and (ii) any failure to timely pay or file state or local Taxes in an amount, individually or in the aggregate, in excess of Fifty Thousand Dollars ($50,000.00), and pay all amounts necessary to fund all present pension, profit sharing and deferred compensation plans in accordance with the terms of such plans.

6.5 Insurance. Keep Borrower's and its Subsidiaries' business and the Collateral insured for risks and in amounts standard for companies in Borrower's and its Subsidiaries' industry and location and as Collateral Agent may reasonably request. Insurance policies shall be in a form, with companies, and in amounts that are reasonably satisfactory to Collateral Agent and Lenders. All property policies shall have a lender's loss payable endorsement showing Collateral Agent as lender loss payee and waive subrogation against Collateral Agent, and all liability policies shall show, or have endorsements showing, Collateral Agent, as additional insured. The Collateral Agent shall be named as lender loss payee and/or additional insured with respect to any such insurance providing coverage in respect of any Collateral, and each provider of any such insurance shall agree, by endorsement upon the policy or policies issued by it or by independent instruments furnished to the Collateral Agent, that it will give the Collateral Agent thirty (30) days prior written notice (or ten (10) days prior written notice in the event of cancellation for non-payment) before any such policy or policies shall be materially altered or canceled. At Collateral Agent's request, Borrower shall deliver certified copies of policies and evidence of all premium payments. Proceeds payable under any policy shall, at Collateral Agent's option, be payable to Collateral Agent, for the ratable benefit of the Lenders, on account of the Obligations. Notwithstanding the foregoing, (a) so long as no Event of Default has occurred and is continuing, Borrower shall have the option of applying the proceeds of any casualty policy up to Five Hundred Thousand Dollars ($500,000.00) with respect to any loss, but not exceeding Five Hundred Thousand Dollars ($500,000.00), in the aggregate for all losses under all casualty policies in any one year, toward the replacement or repair of destroyed or damaged property; provided that any such replaced or repaired property (i) shall be of better, equal or like value as the replaced or repaired Collateral and (ii) shall be deemed Collateral in which Collateral Agent has been granted a first priority security interest, and (b) after the occurrence and during the continuance of an Event of Default, all proceeds payable under such casualty policy shall, at the option of Collateral Agent, be payable to Collateral Agent, for the ratable benefit of the Lenders, on account of the Obligations. If Borrower or any of its Subsidiaries fails to obtain insurance as required under this Section 6.5 or to pay any amount or furnish any required proof of payment to third persons, Collateral Agent and/or any Lender may make, at Borrower's expense, all or part of such payment or obtain such insurance policies required in this Section 6.5, and take any action under the policies Collateral Agent or such Lender deems prudent.

6.6 Operating Accounts.

(a) Maintain all of Borrower's and its Subsidiaries' (excluding Mersana Securities) Collateral Accounts that are operating accounts or hold excess cash with Bank or its Affiliates; provided, however, that all Collateral Accounts (other than Excluded Accounts) of Borrower shall be maintained in accounts which are subject to a Control Agreement in favor of Collateral Agent. Borrower shall also conduct all of its primary banking with Bank and Bank's Affiliates, including, without limitation, cash management, letters of credit and business credit cards.

(b) Borrower shall provide Collateral Agent five (5) days' prior written notice before Borrower or any of its Subsidiaries establishes any Collateral Account (other than Excluded Accounts) after the Effective Date at or with any Person other than Bank or its Affiliates. In addition, for each Collateral Account that Borrower or any Guarantor, at any time maintains, Borrower or such Guarantor shall cause the applicable bank or financial institution at or with which such Collateral Account is maintained to execute and deliver a Control Agreement or other appropriate instrument with respect to such Collateral Account to perfect Collateral Agent's Lien in such Collateral Account in accordance with the terms hereunder prior to the establishment of such Collateral Account, which Control Agreement may not be terminated without prior written consent of Collateral Agent. The provisions of the previous sentence shall not apply to Collateral Accounts (i) exclusively used for payroll, payroll taxes and other employee wage and benefit payments to or for the benefit of Borrower's, or any of its Subsidiaries', employees and identified to Collateral Agent by Borrower as such in the Perfection Certificates, (ii) held by Mersana Securities, or (iii) subject to a lien permitted by clauses (k), (n) and (o) of "Permitted Liens" for all such Collateral Accounts at any time ((i) through (iii) collectively, the "**Excluded Accounts**").

(c) Neither Borrower nor any of its Subsidiaries shall maintain any Collateral Accounts except Collateral Accounts maintained in accordance with Sections 6.6(a) and (b).

(d) At all times Borrower shall maintain unrestricted (other than restrictions in favor of Collateral Agent and the Lenders) cash in one or more Collateral Accounts subject to Control Agreements in favor of Collateral Agent in an aggregate amount of not less than an amount equal to the lesser of (a) one hundred five percent (105.00%) of the outstanding Obligations and (b) the amount of Borrower's and all of its Subsidiaries' (including Mersana Securities) total consolidated cash. Bank may restrict withdrawals or transfers by or on behalf of Borrower that would violate this Section 6.6(d), regardless of whether an Event of Default exists at such time.

6.7 Protection of Intellectual Property Rights. Borrower and each of its Subsidiaries shall: (a) use commercially reasonable efforts to protect, defend and maintain the validity and enforceability of its Intellectual

Property that is material to Borrower's business; (b) promptly advise Collateral Agent in writing upon becoming aware of any material infringement by a third party of its Intellectual Property; and (c) not allow any Intellectual Property material to Borrower's business to be abandoned, forfeited or dedicated to the public without Collateral Agent's prior written consent.

6.8 Litigation Cooperation. Commencing on the Effective Date and continuing through the termination of this Agreement, make available to Collateral Agent and the Lenders, at reasonable times and upon reasonable notice, without expense to Collateral Agent or the Lenders, Borrower and each of Borrower's officers, employees and agents and Borrower's Books, to the extent that Collateral Agent or any Lender may reasonably deem them necessary to prosecute or defend any third-party suit or proceeding instituted by or against Collateral Agent or any Lender, and which is with respect to any Collateral or relating to Borrower.

6.9 Notices of Litigation and Default. Borrower will give prompt written notice to Collateral Agent and the Lenders of any litigation or governmental proceedings pending or threatened (in writing) against Borrower or any of its Subsidiaries, which could reasonably be expected to result in damages or costs to Borrower or any of its Subsidiaries of Two Hundred Fifty Thousand Dollars ($250,000.00) or more or which could reasonably be expected to have a Material Adverse Change. Without limiting or contradicting any other more specific provision of this Agreement, promptly (and in any event within three (3) Business Days) upon Borrower becoming aware of the existence of any Event of Default or event which, with the giving of notice or passage of time, or both, would constitute an Event of Default, Borrower shall give written notice to Collateral Agent and the Lenders of such occurrence, which such notice shall include a reasonably detailed description of such Event of Default or event which, with the giving of notice or passage of time, or both, would constitute an Event of Default.

6.10 [Reserved].

6.11 Landlord Waivers; Bailee Waivers. In the event that Borrower or any of its Subsidiaries, after the Effective Date, intends to add any new offices or business locations, including warehouses, or otherwise store any portion of the Collateral with, or deliver any portion of the Collateral to, a bailee, in each case pursuant to Section 7.2, then Borrower or such Subsidiary will provide prior written notice thereof to Collateral Agent, and, in the event that the new location is the chief executive office of the Borrower or such Subsidiary or the Collateral at any such new location is valued in excess of Three Million Dollars ($3,000,000.00) in the aggregate and located in the United States, such bailee or landlord, as applicable, must execute and deliver a bailee waiver or landlord waiver, as applicable, in form and substance reasonably satisfactory to Collateral Agent prior to the addition of any new offices or business locations, or any such storage with or delivery to any such bailee, as the case may be.

6.12 Creation/Acquisition of Subsidiaries. In the event Borrower, or any of its Subsidiaries creates or acquires any Subsidiary (including, without limitation, pursuant to a Division), Borrower shall provide prior written notice to Collateral Agent and each Lender of the creation or acquisition of such new Subsidiary and take all such action as may be reasonably required by Collateral Agent or any Lender to cause each such Subsidiary to become a co-Borrower hereunder or to guarantee the Obligations of Borrower under the Loan Documents and, in each case, grant a continuing pledge and security interest in and to the assets of such Subsidiary (substantially as described on Exhibit A hereto); and Borrower (or its Subsidiary, as applicable) shall grant and pledge to Collateral Agent, for the ratable benefit of the Lenders, a perfected security interest in the Shares of each such newly created Subsidiary.

6.13 Further Assurances.

(a) Execute any further instruments and take further action as Collateral Agent or any Lender reasonably requests to perfect or continue Collateral Agent's Lien in the Collateral or to effect the purposes of this Agreement.

(b) Deliver to Collateral Agent and Lenders, within five (5) days after the same are sent or received, copies of all material correspondence, reports, documents and other filings with any Governmental Authority that could reasonably be expected to have a material adverse effect on any of the Governmental Approvals material to Borrower's business or otherwise could reasonably be expected to have a Material Adverse Change.

7. NEGATIVE COVENANTS

Borrower shall not, and shall not permit any of its Subsidiaries to, do any of the following without the prior written consent of the Required Lenders:

7.1 Dispositions. Convey, sell, lease, transfer, assign, or otherwise dispose of (including, without limitation, pursuant to a Division) (collectively, "**Transfer**"), or permit any of its Subsidiaries to Transfer, all or any

part of its business or property, except for Transfers (a) of Inventory in the ordinary course of business; (b) of worn out, surplus or obsolete Equipment; (c) in connection with Permitted Liens, Permitted Investments and Permitted Licenses; (d) from any Subsidiary of Borrower to Borrower, or between or among co-Borrowers or secured Guarantors hereunder; (e) of cash and Cash Equivalents in connection with transactions in the ordinary course of business that (i) are approved by Borrower's Board of Directors (to the extent Board approval is required by Borrower's policies or other organizational documents), (ii) are customary for the Borrower's industry and (iii) not otherwise prohibited hereunder; (f) mandated destruction of pre-clinical and clinical trial supplies; and (g) other Transfers of property, other than Intellectual Property, having a book value not exceeding Five Hundred Thousand Dollars ($500,000.00) in the aggregate during any fiscal year.

7.2 Changes in Business, Management, Ownership, or Business Locations. (a) Engage in or permit any of its Subsidiaries to engage in any business other than the businesses engaged in by Borrower as of the Effective Date or reasonably related or incidental thereto; (b) liquidate or dissolve; or (c) (i) any Key Person shall cease to be actively engaged in the management of Borrower unless written notice thereof is provided to Collateral Agent within ten (10) days of such change, or (ii) consummate any transaction or series of related transactions in which the stockholders of Borrower who were not stockholders immediately prior to the first such transaction own more than forty nine percent (49%) of the voting stock of Borrower immediately after giving effect to such transaction or related series of such transactions (other than by the sale of Borrower's equity securities in a public offering, a private placement of public equity or to venture capital or institutional investors so long as Borrower identifies to Collateral Agent the venture capital investors or institutional investors prior to the closing of the transaction). Borrower shall not, without at least ten (10) days' prior written notice to Collateral Agent: (A) add any new offices or business locations, including warehouses, except in accordance with the provisions of Section 6.11; (B) change its jurisdiction of organization, (C) change its organizational structure or type, (D) change its legal name, or (E) change any organizational number (if any) assigned by its jurisdiction of organization.

7.3 Mergers or Acquisitions. Merge or consolidate, or permit any of its Subsidiaries to merge or consolidate, with any other Person, or acquire, or permit any of its Subsidiaries to acquire, all or substantially all of the capital stock, shares or property of another Person (including, without limitation, pursuant to a Division). A Subsidiary may merge or consolidate into another Subsidiary (provided such surviving Subsidiary is a "co-Borrower" hereunder or has provided a secured Guaranty of Borrower's Obligations hereunder) or with (or into) Borrower provided Borrower is the surviving legal entity, and as long as no Event of Default is occurring prior thereto or arises as a result therefrom.

7.4 Indebtedness. Create, incur, assume, or be liable for any Indebtedness, or permit any Subsidiary to do so, other than Permitted Indebtedness.

7.5 Encumbrance. Create, incur, allow, or suffer any Lien on any of its property, or assign or convey any right to receive income, including the sale of any Accounts, or permit any of its Subsidiaries to do so, except for Permitted Liens, or permit any Collateral not to be subject to the first priority security interest granted herein (except for Permitted Liens that are permitted by the terms of this Agreement to have priority over Collateral Agent's Lien), or enter into any agreement, document, instrument or other arrangement (except with or in favor of Collateral Agent, for the ratable benefit of the Lenders) with any Person which directly or indirectly prohibits or has the effect of prohibiting Borrower, or any of its Subsidiaries, from assigning, mortgaging, pledging, granting a security interest in or upon, or encumbering any of Borrower's or such Subsidiary's Intellectual Property, except as is otherwise permitted in Section 7.1 hereof and the definition of "Permitted Liens" herein.

7.6 Maintenance of Collateral Accounts. Maintain any Collateral Account except pursuant to the terms of Section 6.6 hereof.

7.7 Distributions; Investments. (a) Pay any dividends (other than (i) dividends payable solely in capital stock and (ii) dividends by any Subsidiary of Borrower to Borrower) or make any distribution or payment in respect of or redeem, retire or purchase any capital stock (other than (i) repurchases pursuant to the terms of employee stock purchase plans, employee restricted stock agreements, stockholder rights plans, director or consultant stock option plans, or similar plans, provided such repurchases pursuant to this clause (i) and clause (iv) below do not exceed Two Hundred Fifty Thousand Dollars ($250,000.00) in the aggregate per fiscal year, (ii) convert any of its convertible securities into other securities pursuant to the terms of such convertible securities or otherwise in exchange thereof, (iii) pay de minimis amounts of cash in lieu of fractional shares upon conversion of convertible securities or upon any stock split or consolidation, provided such cash amounts do not exceed Fifty Thousand Dollars ($50,000.00) in the aggregate per fiscal year, (iv) make purchases of capital stock or options to acquire such capital stock with the proceeds received from a substantially concurrent issuance of capital stock or convertible securities, provided such repurchases pursuant to this clause (iv) and clause (i) above exceed Two Hundred Fifty Thousand Dollars ($250,000.00) in the aggregate per fiscal year, and (v) make purchases of capital stock in connection with (1) the exercise of stock options or stock appreciation rights or (2) the satisfaction of

withholding tax obligations; in each case, by way of cashless (or, "net") exercise) or (b) directly or indirectly make any Investment other than Permitted Investments, or permit any of its Subsidiaries to do so.

7.8 Transactions with Affiliates. Directly or indirectly enter into or permit to exist any material transaction with any Affiliate of Borrower or any of its Subsidiaries, except for (a) transactions that are in the ordinary course of Borrower's or such Subsidiary's business, upon fair and reasonable terms that are no less favorable to Borrower or such Subsidiary than would be obtained in an arm's length transaction with a non-affiliated Person, (b) Subordinated Debt or equity investments by Borrower's investors in Borrower or its Subsidiaries, (c) reasonable and customary compensation and benefit arrangements (including the granting of options or other equity compensation arrangements) and any indemnification arrangements with employees, officers, directors or consultants entered into in the ordinary course of business and approved by Borrower's Board of Directors to the extent required by Borrower's organizational documents, and (d) transactions permitted by Section 7.1(d), the second sentence of Section 7.3, clause (i) of the definition of Permitted Indebtedness, and clauses (f) and (g) of the definition of Permitted Investments.

7.9 Subordinated Debt. (a) Make or permit any payment on any Subordinated Debt, except under the terms of the subordination, intercreditor, or other similar agreement to which such Subordinated Debt is subject, or (b) amend any provision in any document relating to the Subordinated Debt which would increase the amount thereof, except to the extent expressly permitted under the terms of the subordination, intercreditor, or other similar agreement to which such Subordinated Debt is subject, or adversely affect the subordination thereof to Obligations owed to the Lenders.

7.10 Compliance. Become an "investment company" or a company controlled by an "investment company", under the Investment Company Act of 1940, as amended, or undertake as one of its important activities extending credit to purchase or carry margin stock (as defined in Regulation U of the Board of Governors of the Federal Reserve System), or use the proceeds of any Credit Extension for that purpose; fail to meet the minimum funding requirements of ERISA, permit a Reportable Event or Prohibited Transaction, as defined in ERISA, to occur; fail to comply with the Federal Fair Labor Standards Act or violate any other law or regulation, if the violation could reasonably be expected to have a Material Adverse Change, or permit any of its Subsidiaries to do so; withdraw or permit any Subsidiary to withdraw from participation in, permit partial or complete termination of, or permit the occurrence of any other event with respect to, any present pension, profit sharing and deferred compensation plan which could reasonably be expected to result in any liability of Borrower or any of its Subsidiaries, including any such liability to the Pension Benefit Guaranty Corporation or its successors or any other Governmental Authority.

7.11 Compliance with Anti-Terrorism Laws. Collateral Agent hereby notifies Borrower and each of its Subsidiaries that pursuant to the requirements of Anti-Terrorism Laws, and Collateral Agent's policies and practices, Collateral Agent is required to obtain, verify and record certain information and documentation that identifies Borrower and each of its Subsidiaries and their principals, which information includes the name and address of Borrower and each of its Subsidiaries and their principals and such other information that will allow Collateral Agent to identify such party in accordance with Anti-Terrorism Laws. Neither Borrower nor any of its Subsidiaries shall, nor shall Borrower or any of its Subsidiaries permit any Affiliate to, directly or indirectly, knowingly enter into any documents, instruments, agreements or contracts with any Person listed on the OFAC Lists. Borrower and each of its Subsidiaries shall immediately notify Collateral Agent if Borrower or such Subsidiary has knowledge that Borrower, or any Subsidiary or Affiliate of Borrower, is listed on the OFAC Lists or (a) is convicted on, (b) pleads *nolo contendere* to, (c) is indicted on, or (d) is arraigned and held over on charges involving money laundering or predicate crimes to money laundering. Neither Borrower nor any of its Subsidiaries shall, nor shall Borrower or any of its Subsidiaries, permit any Affiliate to, directly or indirectly, (i) conduct any business or engage in any transaction or dealing with any Blocked Person, including, without limitation, the making or receiving of any contribution of funds, goods or services to or for the benefit of any Blocked Person, (ii) deal in, or otherwise engage in any transaction relating to, any property or interests in property blocked pursuant to Executive Order No. 13224 or any similar executive order or other Anti-Terrorism Law, or (iii) engage in or conspire to engage in any transaction that evades or avoids, or has the purpose of evading or avoiding, or attempts to violate, any of the prohibitions set forth in Executive Order No. 13224 or other Anti-Terrorism Law.

8. EVENTS OF DEFAULT

Any one of the following shall constitute an event of default (an "**Event of Default**") under this Agreement:

8.1 Payment Default. Borrower fails to (a) make any payment of principal or interest on any Credit Extension on its due date, or (b) pay any other Obligations within three (3) Business Days after such Obligations are due and payable (which three (3) Business Day grace period shall not apply to payments due on the Maturity Date or

the date of acceleration pursuant to Section 9.1 (a) hereof). During the cure period, the failure to cure the payment default is not an Event of Default (but no Credit Extension will be made during the cure period);

8.2 Covenant Default.

(a) Borrower or any of its Subsidiaries fails or neglects to perform any obligation in Sections 6.2 (Financial Statements, Reports, Certificates), 6.4 (Taxes), 6.5 (Insurance), 6.6 (Operating Accounts), 6.7 (Protection of Intellectual Property Rights), 6.9 (Notice of Litigation and Default), 6.11 (Landlord Waivers; Bailee Waivers), 6.12 (Creation/Acquisition of Subsidiaries) or 6.13 (Further Assurances) or Borrower violates any covenant in Section 7; or

(b) Borrower, or any of its Subsidiaries, fails or neglects to perform, keep, or observe any other term, provision, condition, covenant or agreement contained in this Agreement or any Loan Documents, and as to any default (other than those specified in this Section 8) under such other term, provision, condition, covenant or agreement that can be cured, has failed to cure the default within fifteen (15) days after the occurrence thereof; provided, however, that if the default cannot by its nature be cured within the fifteen (15) day period or cannot after diligent attempts by Borrower be cured within such fifteen (15) day period, and such default is likely to be cured within a reasonable time, then Borrower shall have an additional period (which shall not in any case exceed thirty (30) days) to attempt to cure such default, and within such reasonable time period the failure to cure the default shall not be deemed an Event of Default (but no Credit Extensions shall be made during such cure period). Grace periods provided under this Section shall not apply, among other things, to financial covenants or any other covenants set forth in subsection (a) above;

8.3 Material Adverse Change. A Material Adverse Change occurs;

8.4 Attachment; Levy; Restraint on Business.

(a) (i) The service of process seeking to attach, by trustee or similar process, any funds of Borrower or any of its Subsidiaries or of any entity under control of Borrower or its Subsidiaries on deposit with any Lender or any Lender's Affiliate or any bank or other institution at which Borrower or any of its Subsidiaries maintains a Collateral Account, or (ii) a notice of lien, levy, or assessment is filed against Borrower or any of its Subsidiaries or their respective assets by any government agency, and the same under subclauses (i) and (ii) hereof are not, within ten (10) days after the occurrence thereof, discharged or stayed (whether through the posting of a bond or otherwise); provided, however, no Credit Extensions shall be made during any ten (10) day cure period; and

(b) (i) any material portion of Borrower's or any of its Subsidiaries' assets is attached, seized, levied on, or comes into possession of a trustee or receiver, or (ii) any court order enjoins, restrains, or prevents Borrower or any of its Subsidiaries from conducting any part of its business;

8.5 Insolvency. (a) Borrower or any of its Subsidiaries is or becomes Insolvent; (b) Borrower or any of its Subsidiaries begins an Insolvency Proceeding; or (c) an Insolvency Proceeding is begun against Borrower or any of its Subsidiaries and not dismissed or stayed within forty-five (45) days (but no Credit Extensions shall be made while Borrower or any Subsidiary is Insolvent and/or until any Insolvency Proceeding is dismissed);

8.6 Other Agreements. There is a default in any agreement to which Borrower or any of its Subsidiaries is a party with a third party or parties resulting in a right by such third party or parties, whether or not exercised, to accelerate the maturity of any Indebtedness in an amount in excess of Five Hundred Thousand Dollars ($500,000.00) or that could reasonably be expected to have a Material Adverse Change;

8.7 Judgments. One or more judgments, orders, or decrees for the payment of money in an amount, individually or in the aggregate, of at least Five Hundred Thousand Dollars ($500,000.00) (not covered by independent third-party insurance as to which liability has been accepted by such insurance carrier) shall be rendered against Borrower or any of its Subsidiaries and shall remain unsatisfied, unvacated, or unstayed for a period of ten (10) days after the entry thereof (provided that no Credit Extensions will be made prior to the satisfaction, vacation, or stay of such judgment, order or decree);

8.8 Misrepresentations. Borrower or any of its Subsidiaries or any Person acting for Borrower or any of its Subsidiaries makes any representation, warranty, or other statement now or later in this Agreement, any Loan Document or in any writing delivered to Collateral Agent and/or Lenders or to induce Collateral Agent and/or the Lenders to enter this Agreement or any Loan Document, and such representation, warranty, or other statement is incorrect in any material respect when made;

8.9 Subordinated Debt. A default or breach occurs under any agreement between Borrower or any of its Subsidiaries and any creditor of Borrower or any of its Subsidiaries that signed a subordination, intercreditor, or other similar agreement with Collateral Agent or the Lenders, or any creditor that has signed such an agreement with Collateral Agent or the Lenders breaches any terms of such agreement;

8.10 Guaranty. (a) Any Guaranty terminates or ceases for any reason to be in full force and effect; (b) any Guarantor does not perform any obligation or covenant under any Guaranty; (c) any circumstance described in Sections 8.3, 8.4, 8.5, 8.7, or 8.8 occurs with respect to any Guarantor, or (d) the liquidation, winding up, or termination of existence of any Guarantor;

8.11 Governmental Approvals. Any Governmental Approval shall have been revoked, rescinded, suspended, modified in an adverse manner, or not renewed in the ordinary course for a full term *and* such revocation, rescission, suspension, modification or non-renewal has resulted in or could reasonably be expected to result in a Material Adverse Change;

8.12 Lien Priority. Any Lien created hereunder or by any other Loan Document shall at any time fail to constitute a valid and perfected Lien on any of the Collateral purported to be secured thereby, subject to no prior or equal Lien, other than Permitted Liens which are permitted to have priority in accordance with the terms of this Agreement; provided that such circumstance is not due to Collateral Agent's failure to file an appropriate continuation financing statement, amendment financing statement or initial financing statement; or

8.13 Delisting. The shares of common stock of Borrower are delisted from NASDAQ Capital Market because of failure to comply with continued listing standards thereof or due to a voluntary delisting which results in such shares not being listed on any other nationally recognized stock exchange in the United States having listing standards at least as restrictive as the NASDAQ Capital Market.

9. RIGHTS AND REMEDIES

9.1 Rights and Remedies.

(a) Upon the occurrence and during the continuance of an Event of Default, Collateral Agent may, and at the written direction of Required Lenders shall, without notice or demand, do any or all of the following: (i) deliver notice of the Event of Default to Borrower, (ii) by notice to Borrower declare all Obligations immediately due and payable (but if an Event of Default described in Section 8.5 occurs all Obligations shall be immediately due and payable without any action by Collateral Agent or the Lenders) or (iii) by notice to Borrower suspend or terminate the obligations, if any, of the Lenders to advance money or extend credit for Borrower's benefit under this Agreement or under any other agreement between Borrower and Collateral Agent and/or the Lenders (but if an Event of Default described in Section 8.5 occurs all obligations, if any, of the Lenders to advance money or extend credit for Borrower's benefit under this Agreement or under any other agreement between Borrower and Collateral Agent and/or the Lenders shall be immediately terminated without any action by Collateral Agent or the Lenders).

(b) Without limiting the rights of Collateral Agent and the Lenders set forth in Section 9.1(a) above, upon the occurrence and during the continuance of an Event of Default, Collateral Agent shall have the right, without notice or demand, to do any or all of the following:

(i) foreclose upon and/or sell or otherwise liquidate, the Collateral;

(ii) apply to the Obligations any (a) balances and deposits of Borrower that Collateral Agent or any Lender holds or controls, or (b) any amount held or controlled by Collateral Agent or any Lender owing to or for the credit or the account of Borrower; and/or

(iii) commence and prosecute an Insolvency Proceeding or consent to Borrower commencing any Insolvency Proceeding.

(c) Without limiting the rights of Collateral Agent and the Lenders set forth in Sections 9.1(a) and (b) above, upon the occurrence and during the continuance of an Event of Default, Collateral Agent shall have the right, without notice or demand, to do any or all of the following:

(i) settle or adjust disputes and claims directly with Account Debtors for amounts on terms and in any order that Collateral Agent considers advisable, notify any Person owing Borrower money of Collateral Agent's security interest in such funds, and verify the amount of such account;

(ii) make any payments and do any acts it considers necessary or reasonable to protect the Collateral and/or its security interest in the Collateral. Borrower shall assemble the Collateral if Collateral Agent requests and make it available in a location as Collateral Agent reasonably designates. Collateral Agent may enter premises where the Collateral is located, take and maintain possession of any part of the Collateral, and pay, purchase, contest, or compromise any Lien which appears to be prior or superior to its security interest and pay all expenses incurred. Borrower grants Collateral Agent a license to enter and occupy any of its premises, without charge, to exercise any of Collateral Agent's rights or remedies;

(iii) ship, reclaim, recover, store, finish, maintain, repair, prepare for sale, and/or advertise for sale, the Collateral. Collateral Agent is hereby granted a non-exclusive, royalty-free license or other right to use, without charge, Borrower's and each of its Subsidiaries' labels, patents, copyrights, mask works, rights of use of any name, trade secrets, trade names, trademarks, service marks, and advertising matter, or any similar property as it pertains to the Collateral, in completing production of, advertising for sale, and selling any Collateral and, in connection with Collateral Agent's exercise of its rights under this Section 9.1, Borrower's and each of its Subsidiaries' rights under all licenses and all franchise agreements inure to Collateral Agent, for the benefit of the Lenders;

(iv) place a "hold" on any account maintained with Collateral Agent or the Lenders and/or deliver a notice of exclusive control, any entitlement order, or other directions or instructions pursuant to any Control Agreement or similar agreements providing control of any Collateral;

(v) demand and receive possession of Borrower's Books;

(vi) appoint a receiver to seize, manage and realize any of the Collateral, and such receiver shall have any right and authority as any competent court will grant or authorize in accordance with any applicable law, including any power or authority to manage the business of Borrower or any of its Subsidiaries;

(vii) subject to clauses 9.1(a) and (b), exercise all rights and remedies available to Collateral Agent and each Lender under the Loan Documents or at law or equity, including all remedies provided under the Code (including disposal of the Collateral pursuant to the terms thereof);

(viii) for any Letters of Credit, demand that Borrower (i) deposit cash with Bank in an amount equal to (x) if such Letters of Credit are denominated in Dollars, then one hundred five percent (105.00%); and (y) if such Letters of Credit are denominated in a Foreign Currency, then one hundred ten percent (110.00%), of the Dollar Equivalent of the aggregate face amount of all Letters of Credit remaining undrawn (plus all interest, fees, and costs due or to become due in connection therewith (as estimated by Bank in its good faith business judgment)), to secure all of the Obligations relating to such Letters of Credit, as collateral security for the repayment of any future drawings under such Letters of Credit, and Borrower shall forthwith deposit and pay such amounts, and (ii) pay in advance all letter of credit fees scheduled to be paid or payable over the remaining term of any Letters of Credit; and

(ix) terminate any FX Contracts.

Notwithstanding any provision of this Section 9.1 to the contrary, upon the occurrence of any Event of Default, Collateral Agent shall have the right to exercise any and all remedies referenced in this Section 9.1 without the written consent of Required Lenders following the occurrence of an Exigent Circumstance. As used in the immediately preceding sentence, "**Exigent Circumstance**" means any event or circumstance that, in the reasonable judgment of Collateral Agent, imminently threatens the ability of Collateral Agent to realize upon all or any material portion of the Collateral, such as, without limitation, fraudulent removal, concealment, or abscondment thereof, destruction or material waste thereof, or failure of Borrower or any of its Subsidiaries after reasonable demand to maintain or reinstate adequate casualty insurance coverage, or which, in the judgment of Collateral Agent, could reasonably be expected to result in a material diminution in value of the Collateral.

9.2 Power of Attorney. Borrower hereby irrevocably appoints Collateral Agent as its lawful attorney-in-fact, exercisable upon the occurrence and during the continuance of an Event of Default, to: (a) endorse Borrower's or any of its Subsidiaries' name on any checks or other forms of payment or security; (b) sign Borrower's or any of its Subsidiaries' name on any invoice or bill of lading for any Account or drafts against Account Debtors; (c) settle and adjust disputes and claims about the Accounts directly with Account Debtors, for

amounts and on terms Collateral Agent determines reasonable; (d) make, settle, and adjust all claims under Borrower's insurance policies; (e) pay, contest or settle any Lien, charge, encumbrance, security interest, and adverse claim in or to the Collateral, or any judgment based thereon, or otherwise take any action to terminate or discharge the same; and (f) transfer the Collateral into the name of Collateral Agent or a third party as the Code or any applicable law permits. Borrower hereby appoints Collateral Agent as its lawful attorney-in-fact to sign Borrower's or any of its Subsidiaries' name on any documents necessary to perfect or continue the perfection of Collateral Agent's security interest in the Collateral regardless of whether an Event of Default has occurred until all Obligations (other than inchoate indemnity obligations and any other obligations which, by their terms, are to survive the termination of this Agreement) have been satisfied in full and Collateral Agent and the Lenders are under no further obligation to make Credit Extensions hereunder. Collateral Agent's foregoing appointment as Borrower's or any of its Subsidiaries' attorney in fact, and all of Collateral Agent's rights and powers, coupled with an interest, are irrevocable until all Obligations (other than inchoate indemnity obligations and any other obligations which, by their terms, are to survive the termination of this Agreement) have been fully repaid and performed and Collateral Agent's and the Lenders' obligation to provide Credit Extensions terminates.

9.3 Protective Payments. If Borrower or any of its Subsidiaries fail to obtain the insurance called for by Section 6.5 or fails to pay any premium thereon or fails to pay any other amount which Borrower or any of its Subsidiaries is obligated to pay under this Agreement or any other Loan Document, Collateral Agent may obtain such insurance or make such payment, and all amounts so paid by Collateral Agent are Lenders' Expenses and immediately due and payable, bearing interest at the Default Rate, and secured by the Collateral. Collateral Agent will make reasonable efforts to provide Borrower with notice of Collateral Agent obtaining such insurance or making such payment at the time it is obtained or paid or within a reasonable time thereafter. No such payments by Collateral Agent are deemed an agreement to make similar payments in the future or Collateral Agent's waiver of any Event of Default.

9.4 Application of Payments and Proceeds. Notwithstanding anything to the contrary contained in this Agreement, upon the occurrence and during the continuance of an Event of Default, (a) Borrower irrevocably waives the right to direct the application of any and all payments at any time or times thereafter received by Collateral Agent from or on behalf of Borrower or any of its Subsidiaries of all or any part of the Obligations, and, as between Borrower on the one hand and Collateral Agent and Lenders on the other, Collateral Agent shall have the continuing and exclusive right to apply and to reapply any and all payments received against the Obligations in such manner as Collateral Agent may deem advisable notwithstanding any previous application by Collateral Agent, and (b) the proceeds of any sale of, or other realization upon all or any part of the Collateral shall be applied: first, to the Lenders' Expenses; second, to accrued and unpaid interest on the Obligations (including any interest which, but for the provisions of the United States Bankruptcy Code, would have accrued on such amounts); third, to the principal amount of the Obligations outstanding; and fourth, to any other indebtedness or obligations of Borrower owing to Collateral Agent or any Lender under the Loan Documents. Any balance remaining shall be delivered to Borrower or to whoever may be lawfully entitled to receive such balance or as a court of competent jurisdiction may direct. In carrying out the foregoing, (x) amounts received shall be applied in the numerical order provided until exhausted prior to the application to the next succeeding category, and (y) each of the Persons entitled to receive a payment in any particular category shall receive an amount equal to its pro rata share of amounts available to be applied pursuant thereto for such category. Any reference in this Agreement to an allocation between or sharing by the Lenders of any right, interest or obligation "ratably," "proportionally" or in similar terms shall refer to Pro Rata Share unless expressly provided otherwise. Collateral Agent, or if applicable, each Lender, shall promptly remit to the other Lenders such sums as may be necessary to ensure the ratable repayment of each Lender's portion of any Term Loan and the ratable distribution of interest, fees and reimbursements paid or made by Borrower. Notwithstanding the foregoing, a Lender receiving a scheduled payment shall not be responsible for determining whether the other Lenders also received their scheduled payment on such date; provided, however, if it is later determined that a Lender received more than its ratable share of scheduled payments made on any date or dates, then such Lender shall remit to Collateral Agent or other Lenders such sums as may be necessary to ensure the ratable payment of such scheduled payments, as instructed by Collateral Agent. If any payment or distribution of any kind or character, whether in cash, properties or securities, shall be received by a Lender in excess of its ratable share, then the portion of such payment or distribution in excess of such Lender's ratable share shall be received by such Lender in trust for and shall be promptly paid over to the other Lender for application to the payments of amounts due on the other Lenders' claims. To the extent any payment for the account of Borrower is required to be returned as a voidable transfer or otherwise, the Lenders shall contribute to one another as is necessary to ensure that such return of payment is on a pro rata basis. If any Lender shall obtain possession of any Collateral, it shall hold such Collateral for itself and as agent and bailee for Collateral Agent and other Lenders for purposes of perfecting Collateral Agent's security interest therein.

9.5 Liability for Collateral. So long as Collateral Agent and the Lenders comply with reasonable banking practices regarding the safekeeping of the Collateral in the possession or under the control of Collateral Agent and the Lenders, Collateral Agent and the Lenders shall not be liable or responsible for: (a) the safekeeping of the Collateral; (b) any loss or damage to the Collateral; (c) any diminution in the value of the Collateral; or (d) any

act or default of any carrier, warehouseman, bailee, or other Person. Borrower bears all risk of loss, damage or destruction of the Collateral.

9.6 No Waiver; Remedies Cumulative. Failure by Collateral Agent or any Lender, at any time or times, to require strict performance by Borrower of any provision of this Agreement or any other Loan Document shall not waive, affect, or diminish any right of Collateral Agent or any Lender thereafter to demand strict performance and compliance herewith or therewith. No waiver hereunder shall be effective unless signed by Collateral Agent and the Required Lenders and then is only effective for the specific instance and purpose for which it is given. The rights and remedies of Collateral Agent and the Lenders under this Agreement and the other Loan Documents are cumulative. Collateral Agent and the Lenders have all rights and remedies provided under the Code, any applicable law, by law, or in equity. The exercise by Collateral Agent or any Lender of one right or remedy is not an election, and Collateral Agent's or any Lender's waiver of any Event of Default is not a continuing waiver. Collateral Agent's or any Lender's delay in exercising any remedy is not a waiver, election, or acquiescence.

9.7 Demand Waiver. Borrower waives, to the fullest extent permitted by law, demand, notice of default or dishonor, notice of payment and nonpayment, notice of any default, nonpayment at maturity, release, compromise, settlement, extension, or renewal of accounts, documents, instruments, chattel paper, and guarantees held by Collateral Agent or any Lender on which Borrower or any Subsidiary is liable.

10. NOTICES

All notices, consents, requests, approvals, demands, or other communication (collectively, "**Communication**") by any party to this Agreement or any other Loan Document must be in writing and shall be deemed to have been validly served, given, or delivered: (a) upon the earlier of actual receipt and three (3) Business Days after deposit in the U.S. mail, first class, registered or certified mail return receipt requested, with proper postage prepaid; (b) upon transmission, when sent by facsimile or electronic mail transmission; (c) one (1) Business Day after deposit with a reputable overnight courier with all charges prepaid; or (d) when delivered, if hand-delivered by messenger, all of which shall be addressed to the party to be notified and sent to the address, facsimile number, or email address indicated below. Any of Collateral Agent, Lender or Borrower may change its mailing address, facsimile number, or email address by giving the other party written notice thereof in accordance with the terms of this Section 10.

If to Borrower:	MERSANA THERAPEUTICS, INC. 840 Memorial Drive Cambridge, MA 02139 Attn: Legal Department Email: [**]
with a copy (which shall not constitute notice) to:	WILMER CUTLER PICKERING HALE AND DORR LLP 1225 17th Street, Suite 2600 Denver, CO 80202 Attn: Chalyse Robinson Fax: (720) 274-3133 Email: chalyse.robinson@wilmerhale.com
If to Collateral Agent:	OXFORD FINANCE LLC 115 South Union Street Suite 300 Alexandria, VA 22314 Attention: Legal Department Fax: [**] Email: [**]
with a copy to	SILICON VALLEY BANK 275 Grove Street, Suite 2-200 Newtown, MA 02466 Attn: Lauren Cole Fax: [**] Email: [**]
with a copy (which shall not constitute notice) to:	DLA PIPER LLP (US) 500 8th Street, NW Washington, DC 20004 Attn: Eric E. Eisenberg Fax: (202) 799-5211 Email: eric.eisenberg@us.dlapiper.com

11. CHOICE OF LAW, VENUE AND JURY TRIAL WAIVER

New York law governs the Loan Documents without regard to principles of conflicts of law. Borrower, Lenders and Collateral Agent each submit to the exclusive jurisdiction of the State and Federal courts in the City of New York, Borough of Manhattan. NOTWITHSTANDING THE FOREGOING, COLLATERAL AGENT AND THE LENDERS SHALL HAVE THE RIGHT TO BRING ANY ACTION OR PROCEEDING AGAINST BORROWER OR ITS PROPERTY IN THE COURTS OF ANY OTHER JURISDICTION WHICH COLLATERAL AGENT AND THE LENDERS (IN ACCORDANCE WITH THE PROVISIONS OF SECTION 9.1) DEEM NECESSARY OR APPROPRIATE TO REALIZE ON THE COLLATERAL OR TO OTHERWISE ENFORCE COLLATERAL AGENT'S AND THE LENDERS' RIGHTS AGAINST BORROWER OR ITS PROPERTY. Borrower expressly submits and consents in advance to such jurisdiction in any action or suit commenced in any such court, and Borrower hereby waives any objection that it may have based upon lack of personal jurisdiction, improper venue, or forum non conveniens and hereby consents to the granting of such legal or equitable relief as is deemed appropriate by such court. Borrower hereby waives personal service of the summons, complaints, and other process issued in such action or suit and agrees that service of such summons, complaints, and other process may be made by registered or certified mail addressed to Borrower at the address set forth in, or subsequently provided by Borrower in accordance with, Section 10 of this Agreement and that service so made shall be deemed completed upon the earlier to occur of Borrower's actual receipt thereof or three (3) days after deposit in the U.S. mails, first class, registered or certified mail return receipt requested, proper postage prepaid.

TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, BORROWER, COLLATERAL AGENT, AND THE LENDERS EACH WAIVE THEIR RIGHT TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION ARISING OUT OF OR BASED UPON THIS AGREEMENT, THE LOAN DOCUMENTS OR ANY CONTEMPLATED TRANSACTION, INCLUDING CONTRACT, TORT, BREACH OF DUTY AND ALL OTHER CLAIMS. THIS WAIVER IS A MATERIAL INDUCEMENT FOR

EACH PARTY TO ENTER INTO THIS AGREEMENT. EACH PARTY HAS REVIEWED THIS WAIVER WITH ITS COUNSEL.

12. GENERAL PROVISIONS

12.1 Successors and Assigns. This Agreement binds and is for the benefit of the successors and permitted assigns of each party. Borrower may not transfer, pledge or assign this Agreement or any rights or obligations under it without Collateral Agent's and each Lender's prior written consent (which may be granted or withheld in Collateral Agent's and each Lender's discretion, subject to Section 12.6). The Lenders have the right, without the consent of or notice to Borrower, to sell, transfer, assign, pledge, negotiate, or grant participation in **(any** such sale, transfer, assignment, negotiation**,** or grant of a participation, a **"Lender Transfer")** all or any part of, or any interest in, the Lenders' obligations, rights, and benefits under this Agreement and the other Loan Documents; *provided*, *however*, that any such Lender Transfer (other than a transfer, pledge, sale or assignment to an Eligible Assignee) of its obligations, rights, and benefits under this Agreement and the other Loan Documents shall require the prior written consent of the Required Lenders (such approved assignee, an "**Approved Lender**")**.** Borrower and Collateral Agent shall be entitled to continue to deal solely and directly with such Lender in connection with the interests so assigned until Collateral Agent shall have received and accepted an effective assignment agreement in form satisfactory to Collateral Agent executed, delivered and fully completed by the applicable parties thereto, and shall have received such other information regarding such Eligible Assignee or Approved Lender as Collateral Agent reasonably shall require. Notwithstanding anything to the contrary contained herein, so long as no Event of Default has occurred and is continuing, no Lender Transfer (other than a Lender Transfer in connection with (x) assignments by a Lender due to a forced divestiture at the request of any regulatory agency; or (y) upon the occurrence of a default, event of default or similar occurrence with respect to a Lender's own financing or securitization transactions) shall be permitted, without Borrower's consent, to any Person which is an Affiliate or Subsidiary of Borrower, a direct competitor of Borrower or a vulture hedge fund, each as determined by Collateral Agent.

12.2 Indemnification. Borrower agrees to indemnify, defend and hold Collateral Agent and the Lenders and their respective directors, officers, employees, agents, attorneys, or any other Person affiliated with or representing Collateral Agent or the Lenders (each, an "**Indemnified Person**") harmless against: (a) all obligations, demands, claims, and liabilities (collectively, "**Claims**") asserted by any other party in connection with; related to; following; or arising from, out of or under, the transactions contemplated by the Loan Documents; and (b) all losses or Lenders' Expenses incurred, or paid by Indemnified Person in connection with; related to; following; or arising from, out of or under, the transactions contemplated by the Loan Documents between Collateral Agent, and/or the Lenders and Borrower (including reasonable and documented attorneys' fees and expenses), except for Claims and/or losses directly caused by such Indemnified Person's gross negligence or willful misconduct. Borrower hereby further indemnifies, defends and holds each Indemnified Person harmless from and against any and all liabilities, obligations, losses, damages, penalties, actions, judgments, suits, claims, costs, expenses and disbursements of any kind or nature whatsoever (including the reasonable and documented fees and disbursements of counsel for such Indemnified Person) in connection with any investigative, response, remedial, administrative or judicial matter or proceeding, whether or not such Indemnified Person shall be designated a party thereto and including any such proceeding initiated by or on behalf of Borrower, and the reasonable expenses of investigation by engineers, environmental consultants and similar technical personnel and any commission, fee or compensation claimed by any broker (other than any broker retained by Collateral Agent or Lenders) asserting any right to payment for the transactions contemplated hereby which may be imposed on, incurred by or asserted against such Indemnified Person as a result of or in connection with the transactions contemplated hereby and the use or intended use of the proceeds of the loan proceeds except for liabilities, obligations, losses, damages, penalties, actions, judgments, suits, claims, costs, expenses and disbursements directly caused by such Indemnified Person's gross negligence or willful misconduct.

12.3 Time of Essence. Time is of the essence for the performance of all Obligations in this Agreement.

12.4 Severability of Provisions. Each provision of this Agreement is severable from every other provision in determining the enforceability of any provision.

12.5 Correction of Loan Documents. Collateral Agent and the Lenders may correct patent errors and fill in any blanks in this Agreement and the other Loan Documents consistent with the agreement of the parties; provided that, the Collateral Agent and the Lenders provide Borrower with at least five (5) days prior written notice of such correction. In the event of any objection by Borrower to such correction, such correction shall be made solely by an amendment singed by Collateral Agent, Lenders and Borrower.

12.6 Amendments in Writing; Integration. (a) No amendment, modification, termination or waiver of any provision of this Agreement or any other Loan Document, no approval or consent thereunder, or any consent

to any departure by Borrower or any of its Subsidiaries therefrom, shall in any event be effective unless the same shall be in writing and signed by Borrower, Collateral Agent and the Required Lenders provided that:

(i) no such amendment, waiver or other modification that would have the effect of increasing or reducing a Lender's Term Loan Commitment or Commitment Percentage shall be effective as to such Lender without such Lender's written consent;

(ii) no such amendment, waiver or modification that would affect the rights and duties of Collateral Agent shall be effective without Collateral Agent's written consent or signature;

(iii) no such amendment, waiver or other modification shall, unless signed by all the Lenders directly affected thereby, (A) reduce the principal of, rate of interest on or any fees with respect to any Term Loan or forgive any principal, interest (other than default interest) or fees (other than late charges) with respect to any Term Loan (B) postpone the date fixed for, or waive, any payment of principal of any Term Loan or of interest on any Term Loan (other than default interest) or any fees provided for hereunder (other than late charges or for any termination of any commitment); (C) change the definition of the term "**Required Lenders**" or the percentage of Lenders which shall be required for the Lenders to take any action hereunder; (D) release all or substantially all of any material portion of the Collateral, authorize Borrower to sell or otherwise dispose of all or substantially all or any material portion of the Collateral or release any Guarantor of all or any portion of the Obligations or its guaranty obligations with respect thereto, except, in each case with respect to this clause (D), as otherwise may be expressly permitted under this Agreement or the other Loan Documents (including in connection with any disposition permitted hereunder); (E) amend, waive or otherwise modify this Section 12.6 or the definitions of the terms used in this Section 12.6 insofar as the definitions affect the substance of this Section 12.6; (F) consent to the assignment, delegation or other transfer by Borrower of any of its rights and obligations under any Loan Document or release Borrower of its payment obligations under any Loan Document, except, in each case with respect to this clause (F), pursuant to a merger or consolidation permitted pursuant to this Agreement; (G) amend any of the provisions of Section 9.4 or amend any of the definitions of Pro Rata Share, Term Loan Commitment, Commitment Percentage or that provide for the Lenders to receive their Pro Rata Shares of any fees, payments, setoffs or proceeds of Collateral hereunder; (H) subordinate the Liens granted in favor of Collateral Agent securing the Obligations; or (I) amend any of the provisions of Section 12.10. It is hereby understood and agreed that all Lenders shall be deemed directly affected by an amendment, waiver or other modification of the type described in the preceding clauses (C), (D), (E), (F), (G) and (H) of the preceding sentence;

(iv) the provisions of the foregoing clauses (i), (ii) and (iii) are subject to the provisions of any interlender or agency agreement among the Lenders and Collateral Agent pursuant to which any Lender may agree to give its consent in connection with any amendment, waiver or modification of the Loan Documents only in the event of the unanimous agreement of all Lenders.

(b) Other than as expressly provided for in Section 12.6(a)(i)-(iii), Collateral Agent may, if requested by the Required Lenders, from time to time designate covenants in this Agreement less restrictive by notification to a representative of Borrower.

(c) This Agreement and the Loan Documents represent the entire agreement about this subject matter and supersede prior negotiations or agreements. All prior agreements, understandings, representations, warranties, and negotiations between the parties about the subject matter of this Agreement and the Loan Documents merge into this Agreement and the Loan Documents.

12.7 Counterparts. This Agreement may be executed in any number of counterparts and by different parties on separate counterparts, each of which, when executed and delivered, is an original, and all taken together, constitute one Agreement.

12.8 Survival. All covenants, representations and warranties made in this Agreement continue in full force and effect until this Agreement has terminated pursuant to its terms and all Obligations (other than inchoate indemnity obligations and any other obligations which, by their terms, are to survive the termination of this Agreement) have been satisfied. Without limiting the foregoing, except as otherwise provided in Section 4.1, the grant of security interest by Borrower in Section 4.1 shall survive until the termination of all Bank Services Agreements. The obligation of Borrower in Section 12.2 to indemnify each Lender and Collateral Agent, as well as the confidentiality provisions in Section 12.9 below, shall survive until the statute of limitations with respect to such claim or cause of action shall have run.

12.9 Confidentiality. In handling any confidential information of Borrower and its Subsidiaries, the Lenders and Collateral Agent shall exercise the same degree of care that it exercises for their own proprietary information, but disclosure of information may be made: (a) subject to the terms and conditions of this Agreement,

to the Lenders' and Collateral Agent's Subsidiaries or Affiliates, or in connection with a Lender's own financing or securitization transactions and upon the occurrence of a default, event of default or similar occurrence with respect to such financing or securitization transaction; (b) to prospective transferees (other than those identified in (a) above) or purchasers of any interest in the Credit Extensions (provided, however, the Lenders and Collateral Agent shall, except upon the occurrence and during the continuance of an Event of Default, obtain such prospective transferee's or purchaser's agreement to the terms of this provision or to similar confidentiality terms); (c) as required by law, regulation, subpoena, or other order; (d) to Lenders' or Collateral Agent's regulators or as otherwise required in connection with an examination or audit; (e) as Collateral Agent reasonably considers appropriate in exercising remedies under the Loan Documents; and (f) to third party service providers of the Lenders and/or Collateral Agent so long as such service providers have executed a confidentiality agreement with the Lenders and Collateral Agent with terms no less restrictive than those contained herein. Confidential information does not include information that either: (i) is in the public domain or in the Lenders' and/or Collateral Agent's possession when disclosed to the Lenders and/or Collateral Agent, or becomes part of the public domain after disclosure to the Lenders and/or Collateral Agent; or (ii) is disclosed to the Lenders and/or Collateral Agent by a third party, if the Lenders and/or Collateral Agent does not know that the third party is prohibited from disclosing the information. Collateral Agent and the Lenders may use confidential information for any purpose relating to the administration of this Agreement, including, without limitation, for the development of client databases, reporting purposes, and market analysis, in each case on an aggregated basis without any identifying information regarding the Borrower or its Subsidiaries. The provisions of the immediately preceding sentence shall survive the termination of this Agreement. The agreements provided under this Section 12.9 supersede all prior agreements, understanding, representations, warranties, and negotiations between the parties about the subject matter of this Section 12.9.

12.10 Public Announcement. Notwithstanding anything else herein to the contrary, Borrower hereby agrees that Collateral Agent and each Lender may, with Borrower's consent (such consent not to be unreasonably withheld or delayed), make a public announcement of the transactions contemplated by this Agreement, and may publicize the same on its company website, in marketing materials, newspapers and other publications, and otherwise, and in connection therewith may use Borrower's name, tradenames, logos, and any information related to the transactions to the extent such information is not confidential.

12.11 Right of Set Off. Borrower hereby grants to Collateral Agent and to each Lender, a lien, security interest and right of set off as security for all Obligations to Collateral Agent and each Lender hereunder, whether now existing or hereafter arising upon and against all deposits, credits, collateral and property, now or hereafter in the possession, custody, safekeeping or control of Collateral Agent or the Lenders or any entity under the control of Collateral Agent or the Lenders (including a Collateral Agent affiliate) or in transit to any of them. At any time after the occurrence and during the continuance of an Event of Default, without demand or notice, Collateral Agent or the Lenders may set off the same or any part thereof and apply the same to any liability or obligation of Borrower even though unmatured and regardless of the adequacy of any other collateral securing the Obligations. ANY AND ALL RIGHTS TO REQUIRE COLLATERAL AGENT TO EXERCISE ITS RIGHTS OR REMEDIES WITH RESPECT TO ANY OTHER COLLATERAL WHICH SECURES THE OBLIGATIONS, PRIOR TO EXERCISING ITS RIGHT OF SETOFF WITH RESPECT TO SUCH DEPOSITS, CREDITS OR OTHER PROPERTY OF BORROWER ARE HEREBY KNOWINGLY, VOLUNTARILY AND IRREVOCABLY WAIVED.

12.12 Silicon Valley Bank as Agent. Collateral Agent hereby appoints Silicon Valley Bank ("**SVB**") as its agent (and SVB hereby accepts such appointment) for the purpose of perfecting Collateral Agent's Liens in assets which, in accordance with Article 8 or Article 9, as applicable, of the Code can be perfected by possession or control, including without limitation, all deposit accounts maintained at SVB.

12.13 Cooperation of Borrower. If necessary, Borrower agrees to (i) execute any documents (including new Secured Promissory Notes) reasonably required to effectuate and acknowledge each assignment of a Term Loan Commitment or Loan to an assignee in accordance with Section 12.1, (ii) make Borrower's management available to meet with Collateral Agent and prospective participants and assignees of Term Loan Commitments or Credit Extensions (which meetings shall be conducted during normal business hours and upon reasonable prior written no more often than twice every twelve months unless an Event of Default has occurred and is continuing), and (iii) assist Collateral Agent or the Lenders in the preparation of information relating to the financial affairs of Borrower as any prospective participant or assignee of a Term Loan Commitment or Term Loan reasonably may request. Subject to the provisions of Section 12.9, Borrower authorizes each Lender to disclose to any prospective participant or assignee of a Term Loan Commitment (other than, in the absence of the occurrence and continuance of an Event of Default, a direct competitor of Borrower or a vulture hedge fund, each as determined by Collateral Agent), any and all information in such Lender's possession concerning Borrower and its financial affairs which has been delivered to such Lender by or on behalf of Borrower pursuant to this Agreement, or which has been delivered to such Lender by or on behalf of Borrower in connection with such Lender's credit evaluation of Borrower prior to entering into this Agreement.

13. DEFINITIONS

13.1 Definitions. As used in this Agreement, the following terms have the following meanings:

"**Account**" is any "account" as defined in the Code with such additions to such term as may hereafter be made, and includes, without limitation, all accounts receivable and other sums owing to Borrower.

"**Account Debtor**" is any "account debtor" as defined in the Code with such additions to such term as may hereafter be made.

"**Affiliate**" of any Person is a Person that owns or controls directly or indirectly the Person, any Person that controls or is controlled by or is under common control with the Person, and each of that Person's senior executive officers, directors, partners and, for any Person that is a limited liability company, that Person's managers and members.

"**Agreement**" is defined in the preamble hereof.

"**Amortization Date**" is, November 1, 2024; provided, however, if Borrower achieves the Term C Milestone, then the Amortization Date with respect to all Term Loans shall automatically be extended to November 1, 2025.

"**Annual Projections**" is defined in Section 6.2(a).

"**Anti-Terrorism Laws**" are any laws relating to terrorism or money laundering, including Executive Order No. 13224 (effective September 24, 2001), the USA PATRIOT Act, the laws comprising or implementing the Bank Secrecy Act, and the laws administered by OFAC.

"**Approved Fund**" is any (i) investment company, fund, trust, securitization vehicle or conduit that is (or will be) engaged in making, purchasing, holding or otherwise investing in commercial loans and similar extensions of credit in the ordinary course of its business or (ii) any Person (other than a natural person) which temporarily warehouses loans for any Lender or any entity described in the preceding clause (i) and that, with respect to each of the preceding clauses (i) and (ii), is administered or managed by (a) a Lender, (b) an Affiliate of a Lender or (c) a Person (other than a natural person) or an Affiliate of a Person (other than a natural person) that administers or manages a Lender.

"**Approved Lender**" is defined in Section 12.1.

"**Bank Services**" are any products, credit services, and/or financial accommodations previously, now, or hereafter provided to Borrower or any of its Subsidiaries by Bank or any Bank Affiliate, including, without limitation, any letters of credit, cash management services (including, without limitation, merchant services, direct deposit of payroll, business credit cards, and check cashing services), interest rate swap arrangements, and foreign exchange services as any such products or services may be identified in Bank's various agreements related thereto (each, a "**Bank Services Agreement**").

"**Bank**" is defined in the preamble hereof.

"**Basic Rate**" is, with respect to each Term Loan, the per annum rate of interest (based on a year of three hundred sixty (360) days) equal to the greater of (a) eight and one half of one percent (8.50%) and (b) (i) the Prime Rate on the last Business Day of the month that immediately precedes the month in which the interest will accrue, plus (ii) five and one quarter of one percent (5.25%). Notwithstanding the foregoing, the Basic Rate for the Term Loans for the period from the Effective Date through and including October 31, 2021 shall be eight and one half of one percent (8.50%).

"**Biologics License Application**" means an application for licensure of a biological product submitted to the FDA under 42 U.S.C. § 262(k) for permission to introduce, or deliver for introduction, a biologic product into interstate commerce.

"**Blocked Person**" is any Person: (a) listed in the annex to, or is otherwise subject to the provisions of, Executive Order No. 13224, (b) a Person owned or controlled by, or acting for or on behalf of, any Person that is listed in the annex to, or is otherwise subject to the provisions of, Executive Order No. 13224, (c) a Person with which any Lender is prohibited from dealing or otherwise engaging in any transaction by any Anti-Terrorism Law,

(d) a Person that commits, threatens or conspires to commit or supports "terrorism" as defined in Executive Order No. 13224, or (e) a Person that is named a "specially designated national" or "blocked person" on the most current list published by OFAC or other similar list.

"**Borrower**" is defined in the preamble hereof.

"**Borrower's Books**" are Borrower's or any of its Subsidiaries' books and records including ledgers, federal, and state tax returns, records regarding Borrower's or its Subsidiaries' assets or liabilities, the Collateral, business operations or financial condition, and all computer programs or storage or any equipment containing such information.

"**Business Day**" is any day that is not a Saturday, Sunday or a day on which Collateral Agent is closed.

"**Cash Equivalents**" are (a) marketable direct obligations issued or unconditionally guaranteed by the United States or any agency or any State thereof having maturities of not more than one (1) year from the date of acquisition; (b) commercial paper maturing no more than one (1) year after its creation and having the highest rating from either Standard & Poor's Ratings Group or Moody's Investors Service, Inc.; (c) certificates of deposit maturing no more than one (1) year after issue provided that the account in which any such certificate of deposit is maintained is subject to a Control Agreement in favor of Collateral Agent (unless such account is an Excluded Account); and (d) money market funds at least ninety-five percent (95.00%) of the assets of which constitute Cash Equivalents of the kinds described in clauses (a) through (c) of this definition. For the avoidance of doubt, the direct purchase by Borrower or any of its Subsidiaries of any Auction Rate Securities, or purchasing participations in, or entering into any type of swap or other derivative transaction, or otherwise holding or engaging in any ownership interest in any type of Auction Rate Security by Borrower or any of its Subsidiaries shall be conclusively determined by the Lenders as an ineligible Cash Equivalent, and any such transaction shall expressly violate each other provision of this Agreement governing Permitted Investments. Notwithstanding the foregoing, Cash Equivalents does not include and Borrower, and each of its Subsidiaries, are prohibited from purchasing, purchasing participations in, entering into any type of swap or other equivalent derivative transaction, or otherwise holding or engaging in any ownership interest in any type of debt instrument, including, without limitation, any corporate or municipal bonds with a long-term nominal maturity for which the interest rate is reset through a dutch auction and more commonly referred to as an auction rate security (each, an "**Auction Rate Security**").

"**Claims**" are defined in Section 12.2.

"**Code**" is the Uniform Commercial Code, as the same may, from time to time, be enacted and in effect in the State of New York; provided, that, to the extent that the Code is used to define any term herein or in any Loan Document and such term is defined differently in different Articles or Divisions of the Code, the definition of such term contained in Article or Division 9 shall govern; provided further, that in the event that, by reason of mandatory provisions of law, any or all of the attachment, perfection, or priority of, or remedies with respect to, Collateral Agent's Lien on any Collateral is governed by the Uniform Commercial Code in effect in a jurisdiction other than the State of New York, the term "Code" shall mean the Uniform Commercial Code as enacted and in effect in such other jurisdiction solely for purposes of the provisions thereof relating to such attachment, perfection, priority, or remedies and for purposes of definitions relating to such provisions.

"**Collateral**" is any and all properties, rights and assets of Borrower described on Exhibit A.

"**Collateral Account**" is any Deposit Account, Securities Account, or Commodity Account, or any other bank account maintained by Borrower or any Subsidiary at any time.

"**Collateral Agent**" is, Oxford, not in its individual capacity, but solely in its capacity as agent on behalf of and for the benefit of the Lenders.

"**Commitment Percentage**" is set forth in Schedule 1.1, as amended from time to time.

"**Commodity Account**" is any "commodity account" as defined in the Code with such additions to such term as may hereafter be made.

"**Communication**" is defined in Section 10.

"**Compliance Certificate**" is that certain certificate in the form attached hereto as Exhibit C.

"**Contingent Obligation**" is, for any Person, any direct or indirect liability, contingent or not, of that Person for (a) any indebtedness, lease, dividend, letter of credit or other obligation of another such as an obligation directly or indirectly guaranteed, endorsed, co-made, discounted or sold with recourse by that Person, or for which that Person is directly or indirectly liable; (b) any obligations for undrawn letters of credit for the account of that Person; and (c) all obligations from any interest rate, currency or commodity swap agreement, interest rate cap or collar agreement, or other agreement or arrangement designated to protect a Person against fluctuation in interest rates, currency exchange rates or commodity prices; but "Contingent Obligation" does not include endorsements in the ordinary course of business. The amount of a Contingent Obligation is the stated or determined amount of the primary obligation for which the Contingent Obligation is made or, if not determinable, the maximum reasonably anticipated liability for it determined by the Person in good faith; but the amount may not exceed the maximum of the obligations under any guarantee or other support arrangement.

"**Control Agreement**" is any control agreement entered into among the depository institution at which Borrower or any of its Subsidiaries maintains a Deposit Account or the securities intermediary or commodity intermediary at which Borrower or any of its Subsidiaries maintains a Securities Account or a Commodity Account, Borrower and such Subsidiary, and Collateral Agent pursuant to which Collateral Agent obtains control (within the meaning of the Code) for the benefit of the Lenders over such Deposit Account, Securities Account, or Commodity Account.

"**Copyrights**" are any and all copyright rights, copyright applications, copyright registrations and like protections in each work or authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret.

"**Credit Extension**" is any Term Loan or any other extension of credit by Collateral Agent or Lenders for Borrower's benefit.

"**Default Rate**" is defined in Section 2.3(b).

"**Deposit Account**" is any "deposit account" as defined in the Code with such additions to such term as may hereafter be made.

"**Designated Deposit Account**" is Borrower's deposit account, account number ending with [**] maintained with Bank.

"**Disbursement Letter**" is that certain form attached hereto as Exhibit B-1.

"**Division**" means, in reference to any Person which is an entity, the division of such Person into two (2) or more separate Persons, with the dividing Person either continuing or terminating its existence as part of such division, including, without limitation, as contemplated under Section 18-217 of the Delaware Limited Liability Company Act for limited liability companies formed under Delaware law, or any analogous action taken pursuant to any other applicable law with respect to any corporation, limited liability company, partnership or other entity.

"**Dollar Equivalent**" is, at any time, (a) with respect to any amount denominated in Dollars, such amount, and (b) with respect to any amount denominated in a Foreign Currency, the equivalent amount therefor in Dollars as determined by Bank at such time on the basis of the then-prevailing rate of exchange in San Francisco, California, for sales of the Foreign Currency for transfer to the country issuing such Foreign Currency.

"**Dollars**," "**dollars**" and "$" each mean lawful money of the United States.

"**Effective Date**" is defined in the preamble hereof.

"**Eligible Assignee**" is (i) a Lender, (ii) an Affiliate of a Lender, (iii) an Approved Fund and (iv) any commercial bank, savings and loan association or savings bank or any other entity which is an "accredited investor" (as defined in Regulation D under the Securities Act of 1933, as amended) and which extends credit or buys loans as one of its businesses, including insurance companies, mutual funds, lease financing companies and commercial finance companies, in each case, which either (A) has a rating of BBB or higher from Standard & Poor's Rating Group and a rating of Baa2 or higher from Moody's Investors Service, Inc. at the date that it becomes a Lender or (B) has total assets in excess of Five Billion Dollars ($5,000,000,000.00), and in each case of clauses (i) through (iv), which, through its applicable lending office, is capable of lending to Borrower without the imposition of any withholding or similar taxes; provided that notwithstanding the foregoing, "Eligible Assignee" shall not include, unless an Event of Default has occurred and is continuing, (i) Borrower or any of Borrower's Affiliates or Subsidiaries or (ii) a direct competitor of Borrower or a vulture hedge fund, each as determined by

Collateral Agent. Notwithstanding the foregoing, (x) in connection with assignments by a Lender due to a forced divestiture at the request of any regulatory agency, the restrictions set forth herein shall not apply and Eligible Assignee shall mean any Person or party and (y) in connection with a Lender's own financing or securitization transactions, the restrictions set forth herein shall not apply and Eligible Assignee shall mean any Person or party providing such financing or formed to undertake such securitization transaction and any transferee of such Person or party upon the occurrence of a default, event of default or similar occurrence with respect to such financing or securitization transaction; provided that no such sale, transfer, pledge or assignment under this clause (y) shall release such Lender from any of its obligations hereunder or substitute any such Person or party for such Lender as a party hereto until Collateral Agent shall have received and accepted an effective assignment agreement from such Person or party in form satisfactory to Collateral Agent executed, delivered and fully completed by the applicable parties thereto, and shall have received such other information regarding such Eligible Assignee as Collateral Agent reasonably shall require.

"**Equipment**" is all "equipment" as defined in the Code with such additions to such term as may hereafter be made, and includes without limitation all machinery, fixtures, goods, vehicles (including motor vehicles and trailers), and any interest in any of the foregoing.

"**ERISA**" is the Employee Retirement Income Security Act of 1974, as amended, and its regulations.

"**Excluded Taxes**" means, with respect to a Lender, any Taxes imposed on or measured by net income (however denominated), franchise Taxes, and branch profits Taxes imposed as a result of such Lender being organized under the laws of, or having its principal office or its applicable lending office located in, the jurisdiction imposing such Tax (or any political subdivision thereof) or that are imposed as a result of a present or former connection between such Lender and the jurisdiction imposing such Tax (other than connections arising solely from such Lender becoming a party to this Agreement and performing its obligations and receiving payments under such Agreement).

"**Existing Indebtedness**" is the indebtedness of Borrower to Silicon Valley Bank in the aggregate principal outstanding amount as of the Effective Date of approximately Five Million Two Hundred Thousand Dollars ($5,200,000) pursuant to that certain Loan and Security Agreement, dated as of May 9, 2019, entered into by and between Silicon Valley Bank and Borrower, as amended.

"**Event of Default**" is defined in Section 8.

"**Facility Fee**" is defined in Section 2.5(a).

"**FDA**" means the U.S. Food and Drug Administration or any successor thereto.

"**Federal Reserve Bank of New York's Website**" means the website of the Federal Reserve Bank of New York at http://www.newyorkfed.org, or any successor source.

"**Final Payment**" is a payment (in addition to and not a substitution for the regular monthly payments of principal plus accrued interest) due on the earliest to occur of (a) the Maturity Date, or (b) the acceleration of any Term Loan, or (c) the prepayment of a Term Loan pursuant to Section 2.2(c) or (d), equal to the original principal amount of any funded Term Loan being repaid, multiplied by the Final Payment Percentage, payable to Lenders in accordance with their respective Pro Rata Shares.

"**Final Payment Percentage**" is four and one quarter of one percent (4.25%).

"**Foreign Currency**" means lawful money of a country other than the United States.

"**Foreign Subsidiary**" is a Subsidiary that is not an entity organized under the laws of the United States or any territory thereof.

"**Funding Date**" is any date on which a Credit Extension is made to or on account of Borrower which shall be a Business Day.

"**FX Contract**" is any foreign exchange contract by and between Borrower and Bank under which Borrower commits to purchase from or sell to Bank a specific amount of Foreign Currency on a specified date.

"**GAAP**" is generally accepted accounting principles set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or in such other statements by such other Person as may be approved by a significant segment of the accounting profession in the United States, which are applicable to the circumstances as of the date of determination.

"**General Intangibles**" are all "general intangibles" as defined in the Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation, all copyright rights, copyright applications, copyright registrations and like protections in each work of authorship and derivative work, whether published or unpublished, any patents, trademarks, service marks and, to the extent permitted under applicable law, any applications therefor, whether registered or not, any trade secret rights, including any rights to unpatented inventions, payment intangibles, royalties, contract rights, goodwill, franchise agreements, purchase orders, customer lists, route lists, telephone numbers, domain names, claims, income and other tax refunds, security and other deposits, options to purchase or sell real or personal property, rights in all litigation presently or hereafter pending (whether in contract, tort or otherwise), insurance policies (including without limitation key man, property damage, and business interruption insurance), payments of insurance and rights to payment of any kind.

"**Good Faith Deposit**" is defined in Section 2.5(e).

"**Governmental Approval**" is any consent, authorization, approval, order, license, franchise, permit, certificate, accreditation, registration, filing or notice, of, issued by, from or to, or other act by or in respect of, any Governmental Authority.

"**Governmental Authority**" is any nation or government, any state or other political subdivision thereof, any agency, authority, instrumentality, regulatory body, court, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative functions of or pertaining to government, any securities exchange and any self-regulatory organization.

"**Guarantor**" is any Person providing a Guaranty in favor of Collateral Agent.

"**Guaranty**" is any guarantee of all or any part of the Obligations, as the same may from time to time be amended, restated, modified or otherwise supplemented.

"**Indebtedness**" is (a) indebtedness for borrowed money or the deferred price of property or services, such as reimbursement and other obligations for surety bonds and letters of credit, (b) obligations evidenced by notes, bonds, debentures or similar instruments, (c) capital lease obligations, and (d) Contingent Obligations. Notwithstanding anything to the contrary herein and strictly for the purposes of clause (c) of the definition of Indebtedness and for no other purpose, any obligations of a Person that are or would have been treated as operating leases or capital leases for purposes of GAAP prior to the issuance by the Financial Accounting Standards Board on February 25, 2016 of an Accounting Standards Update (Topic 842) (the "**ASU**") shall continue to be accounted for as operating leases or capital leases (whether or not such operating lease obligations or capital lease obligations, as applicable, were in effect on such date) notwithstanding the fact that such obligations are required in accordance with the ASU (on a prospective or retroactive basis or otherwise) to be treated as capitalized lease obligations in accordance with GAAP.

"**Indemnified Person**" is defined in Section 12.2.

"**Insolvency Proceeding**" is any proceeding by or against any Person under the United States Bankruptcy Code, or any other bankruptcy or insolvency law, including assignments for the benefit of creditors, compositions, extensions generally with its creditors, or proceedings seeking reorganization, arrangement, or other relief.

"**Insolvent**" means not Solvent.

"**Intellectual Property**" means all of Borrower's or any Subsidiary's right, title and interest in and to the following:

(a) its Copyrights, Trademarks and Patents;

(b) any and all trade secrets and trade secret rights, including, without limitation, any rights to unpatented inventions, know-how, operating manuals;

(c) any and all source code;

(d) any and all design rights which may be available to Borrower;

(e) any and all claims for damages by way of past, present and future infringement of any of the foregoing, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the Intellectual Property rights identified above; and

(f) all amendments, renewals and extensions of any of the Copyrights, Trademarks or Patents.

"**Inventory**" is all "inventory" as defined in the Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation all merchandise, raw materials, parts, supplies, packing and shipping materials, work in process and finished products, including without limitation such inventory as is temporarily out of any Person's custody or possession or in transit and including any returned goods and any documents of title representing any of the above.

"**Investment**" is any beneficial ownership interest in any Person (including stock, partnership interest or other securities), and any loan, advance, payment or capital contribution to any Person.

"**Key Person**" is each of Borrower's (i) Chief Executive Officer, who is Anna Protopapas as of the Effective Date, (ii) the principal financial officer, who is Brian C. DeSchuytner as of the Effective Date, and (iii) the principal scientific officer, who is Timothy B. Lowinger, PhD as of the Effective Date.

"**Lender**" is any one of the Lenders.

"**Lenders**" are the Persons identified on Schedule 1.1 hereto and each assignee that becomes a party to this Agreement pursuant to Section 12.1.

"**Lenders' Expenses**" are all audit fees and expenses, costs, and expenses (including reasonable and documented out-of-pocket attorneys' fees and expenses, as well as appraisal fees, fees incurred on account of lien searches, inspection fees, and filing fees) for preparing, amending, negotiating, administering, defending and enforcing the Loan Documents (including, without limitation, those incurred in connection with appeals or Insolvency Proceedings) or otherwise incurred by Collateral Agent and/or the Lenders in connection with the Loan Documents.

"**Letter of Credit"** is a standby or commercial letter of credit issued by Bank upon request of Borrower based upon an application, guarantee, indemnity, or similar agreement.

"**Lien**" is a claim, mortgage, deed of trust, levy, charge, pledge, security interest, or other encumbrance of any kind, whether voluntarily incurred or arising by operation of law or otherwise against any property.

"**Loan Documents**" are, collectively, this Agreement, the Perfection Certificates, each Compliance Certificate, each Disbursement Letter, each Loan Payment/Advance Request Form and any Bank Services Agreement, the Post Closing Letter, any subordination agreements, any note, or notes or guaranties executed by Borrower or any other Person, and any other present or future agreement entered into by Borrower, any Guarantor or any other Person for the benefit of the Lenders and Collateral Agent in connection with this Agreement; all as amended, restated, or otherwise modified.

"**Loan Payment/Advance Request Form**" is that certain form attached hereto as Exhibit B-2.

"**Material Adverse Change**" is (a) a material impairment in the perfection or priority of Collateral Agent's Lien in the Collateral or in the value of such Collateral; (b) a material adverse change in the business, operations or condition (financial or otherwise) of either (i) Borrower or (ii) Borrower and its Subsidiaries, taken as a whole; or (c) a material impairment of the prospect of repayment of any portion of the Obligations.

"**Maturity Date**" is, for each Term Loan, October 1, 2026.

"**Mersana Securities**" means Mersana Securities Corp., a corporation organized under the laws of the Commonwealth of Massachusetts and a Subsidiary of Borrower.

"**Obligations**" are all of Borrower's obligations to pay when due any debts, principal, interest, Lenders' Expenses, the Prepayment Fee, the Final Payment, and other amounts Borrower owes the Lenders now or later, in

connection with, related to, following, or arising from, out of or under, this Agreement or, the other Loan Documents, or otherwise, including, without limitation, all obligations relating to letters of credit (including reimbursement obligations for drawn and undrawn letters of credit), cash management services, and foreign exchange contracts, if any, and including interest accruing after Insolvency Proceedings begin (whether or not allowed) and debts, liabilities, or obligations of Borrower assigned to the Lenders and/or Collateral Agent, and the performance of Borrower's duties under the Loan Documents.

"**OFAC**" is the U.S. Department of Treasury Office of Foreign Assets Control.

"**OFAC Lists**" are, collectively, the Specially Designated Nationals and Blocked Persons List maintained by OFAC pursuant to Executive Order No. 13224, 66 Fed. Reg. 49079 (Sept. 25, 2001) and/or any other list of terrorists or other restricted Persons maintained pursuant to any of the rules and regulations of OFAC or pursuant to any other applicable Executive Orders.

"**Operating Documents**" are, for any Person, such Person's formation documents, as certified by the Secretary of State (or equivalent agency) of such Person's jurisdiction of organization on a date that is no earlier than thirty (30) days prior to the Effective Date, and, (a) if such Person is a corporation, its bylaws in current form, (b) if such Person is a limited liability company, its limited liability company agreement (or similar agreement), and (c) if such Person is a partnership, its partnership agreement (or similar agreement), each of the foregoing with all current amendments or modifications thereto.

"**Patents**" means all patents, patent applications and like protections including without limitation improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same.

"**Payment Date**" is the first (1st) calendar day of each calendar month, commencing on December 1, 2021.

"**Perfection Certificate**" and "**Perfection Certificates**" is defined in Section 5.1.

"**Permitted Indebtedness**" is:

(a) Borrower's Indebtedness to the Lenders and Collateral Agent under this Agreement and the other Loan Documents;

(b) Indebtedness existing on the Effective Date and disclosed on the Perfection Certificate(s);

(c) Subordinated Debt;

(d) unsecured Indebtedness to trade creditors incurred in the ordinary course of business;

(e) Indebtedness consisting of capitalized lease obligations and purchase money Indebtedness, in each case incurred by Borrower or any of its Subsidiaries to finance the acquisition, repair, improvement or construction of fixed or capital assets of such person, provided that (i) the aggregate outstanding principal amount of all such Indebtedness does not exceed [**] Dollars ($[**]) at any time and (ii) the principal amount of such Indebtedness does not exceed the lower of the cost or fair market value of the property so acquired or built or of such repairs or improvements financed with such Indebtedness (each measured at the time of such acquisition, repair, improvement or construction is made);

(f) Indebtedness incurred as a result of endorsing negotiable instruments received in the ordinary course of Borrower's business;

(g) other unsecured Indebtedness in an aggregate amount outstanding at any time not to exceed [**] Dollars ($[**]);

(h) Indebtedness between or among co-Borrowers or secured Guarantors hereunder;

(i) Indebtedness consisting of Investments under clause (f) of the definition of "Permitted Investments";

(j) Indebtedness relating to insurance premium financing arrangements, not to exceed [**] Dollars ($[**]) outstanding at any time;

(k) any obligations owing with respect to corporate credit cards or merchant services in an aggregate amount outstanding at any time not to exceed [**] Dollars ($[**]) at any time outstanding;

(l) Indebtedness in respect of letters of credit, bank guarantees, bonds and similar instruments issued for the account of the Borrower or any Subsidiary in the ordinary course of business supporting obligations under (A) workers' compensation, unemployment insurance and other social security laws and (B) bids, trade contracts, leases, statutory obligations, surety and appeal bonds, performance bonds and obligations of a like nature; in an aggregate amount for (A) and (B) not to exceed [**] Dollars ($[**]) at any time;

(m) Indebtedness of either Borrower and its respective Subsidiaries arising from the honoring by a bank or other financial institution of a check, draft or similar instrument in the ordinary course of business;

(n) Indebtedness representing deferred compensation, severance, pension and health and welfare retirement benefits or the equivalent thereof to current and former employees of either Borrower or its Subsidiaries incurred in the ordinary course of business or in connection with Permitted Investments, not to exceed [**] Dollars ($[**]) in the aggregate in any fiscal year; and

(o) extensions, refinancings, modifications, amendments and restatements of any items of Permitted Indebtedness (a) through (n) above, provided that the principal amount thereof is not increased or the terms thereof are not modified to impose materially more burdensome terms upon Borrower, or its Subsidiary, as the case may be.

"**Permitted Investments**" are:

(a) Investments disclosed on the Perfection Certificate(s) and existing on the Effective Date;

(b) (i) Investments consisting of cash and Cash Equivalents held in Borrower's Collateral Accounts that are maintained in accordance with Section 6.6 of this Agreement, and (ii) any other Investments permitted by Borrower's investment policy, as amended from time to time, provided that such investment policy (and any such amendment thereto) has been approved in writing by Collateral Agent;

(c) Investments consisting of the endorsement of negotiable instruments for deposit or collection or similar transactions in the ordinary course of Borrower;

(d) Investments consisting of Collateral Accounts in which Collateral Agent has a perfected security interest to the extent required by Section 6.6;

(e) Investments in connection with Transfers permitted by Section 7.1;

(f) Investments (i) by Borrower in Mersana Securities so long as no Event of Default has occurred and is continuing or would result from such Investments (ii) by Borrower in Subsidiaries (other than Mersana Securities) not to exceed [**] Dollars ($[**]) in the aggregate in any fiscal year, (iii) between or among co-Borrowers or secured Guarantors hereunder, and (iv) by Subsidiaries in Borrower;

(g) Investments consisting of (i) travel advances and employee relocation loans and other employee loans and advances in the ordinary course of business, and (ii) loans to employees, officers or directors relating to the purchase of equity securities of Borrower or its Subsidiaries pursuant to employee stock purchase plans or agreements approved by Borrower's Board of Directors; not to exceed [**] Dollars ($[**]) in the aggregate for (i) and (ii) in any fiscal year;

(h) Investments (including debt obligations) received in connection with the bankruptcy or reorganization of customers or suppliers and in settlement of delinquent obligations of, and other disputes with, customers or suppliers arising in the ordinary course of business;

(i) Investments consisting of notes receivable of, or prepaid royalties and other credit extensions, to customers and suppliers who are not Affiliates, in the ordinary course of business; provided that this paragraph (i) shall not apply to Investments of Borrower in any Subsidiary;

(j) Investments in joint ventures or strategic alliances in the ordinary course of Borrower's business consisting of the non-exclusive licensing of technology, the development of technology or the providing of

technical support; provided that any cash Investments by Borrower or its Subsidiaries for such Investments do not exceed [**] Dollars ($[**]) in the aggregate in any fiscal year;

(k) the formation or acquisition of Subsidiaries after the Effective Date, subject to compliance with Section 6.12 of this Agreement; and

(l) other Investments not to exceed [**] Dollars ($[**]) in the aggregate in any fiscal year.

"**Permitted Licenses**" are (A) licenses of over-the-counter software that is commercially available to the public, and (B) non-exclusive and exclusive licenses for the use of the Intellectual Property of Borrower or any of its Subsidiaries entered into in the ordinary course of business, provided, that, with respect to each such license described in clause (B), (i) no Event of Default has occurred or is continuing at the time of such license; (ii) the license constitutes an arms-length transaction, the terms of which, on their face, do not provide for a sale or assignment of any Intellectual Property and do not restrict the ability of Borrower or any of its Subsidiaries, as applicable, to pledge, grant a security interest in or lien on, or assign or otherwise Transfer any Intellectual Property; (iii) in the case of any exclusive license, (x) Borrower delivers three (3) days' prior written notice and a brief summary of the terms of the proposed license to Collateral Agent and the Lenders and delivers to Collateral Agent and the Lenders copies of the final executed licensing documents in connection with the exclusive license promptly upon consummation thereof, and (y) any such license could not result in a legal transfer of title of the licensed property but may be exclusive in respects other than territory and may be exclusive as to territory only as to discrete geographical areas outside of the United States (other than the Permitted License Transaction, which may be a worldwide exclusive license); and (iv) all upfront payments, royalties, milestone payments or other proceeds arising from the licensing agreement that are payable to Borrower or any of its Subsidiaries are paid to a Deposit Account that is governed by a Control Agreement.

"**Permitted License Amendment Transaction**" means an amendment of that certain Commercial License and Option Agreement between Borrower and Synaffix B.V. dated as of January 3, 2019 pursuant to which Borrower licenses additional Intellectual Property from Synaffix B.V. and/or its Affiliates so long as (a) such amendment is entered into within thirty (30) days of the effective date of the Permitted License Transaction, (b) no Event of Default has occurred or is continuing at the time of entering into such amendment, and (c) the aggregate amount of upfront payments paid by Borrower to Synaffix B.V. and/or its Affiliates pursuant to such amendment does not exceed Ten Million Dollars ($10,000,000.00).

"**Permitted License Transaction**" means a collaboration and worldwide exclusive license agreement between Borrower and Johnson & Johnson or its Affiliates ("**J&J**"), pursuant to which Borrower will apply its proprietary technology platforms to up to three (3) antibody targets identified and provided by J&J and for which Borrower will receive at least Twenty Million Dollars ($20,000,000.00) in upfront cash proceeds.

"**Permitted Liens**" are:

(a) Liens existing on the Effective Date and disclosed on the Perfection Certificates or arising under this Agreement and the other Loan Documents;

(b) Liens for taxes, fees, assessments or other government charges or levies, either (i) not due and payable or (ii) being contested in good faith and for which Borrower maintains adequate reserves on its Books, provided that no notice of any such Lien has been filed or recorded under the Internal Revenue Code of 1986, as amended, and the Treasury Regulations adopted thereunder;

(c) Liens securing Indebtedness permitted under clause (e) of the definition of "**Permitted Indebtedness**," provided that (i) such Liens exist prior to the acquisition of, or attach substantially simultaneous with, or within twenty (20) days after the, acquisition, lease, repair, improvement or construction of, such property financed or leased by such Indebtedness and (ii) such Liens do not extend to any property of Borrower other than the property (and proceeds thereof) acquired, leased or built, or the improvements or repairs, financed by such Indebtedness;

(d) Liens of materialmen, mechanics, carriers, warehousemen, suppliers, landlords or other Persons that are possessory in nature arising in the ordinary course of business so long as such Liens attach only to Inventory, securing liabilities in the aggregate amount not to exceed [**] Dollars ($[**]), and which are not delinquent or remain payable without penalty or which are being contested in good faith and by appropriate proceedings which proceedings have the effect of preventing the forfeiture or sale of the property subject thereto;

(e) Liens to secure payment of workers' compensation, employment insurance, old-age pensions, social security and other like obligations incurred in the ordinary course of business (other than Liens imposed by ERISA);

(f) leases or subleases of real property granted in the ordinary course of Borrower's business (or, if referring to another Person, in the ordinary course of such Person's business), and leases, subleases, non-exclusive licenses or sublicenses of personal property (other than Intellectual Property) granted in the ordinary course of Borrower's business (or, if referring to another Person, in the ordinary course of such Person's business), if the leases, subleases, licenses and sublicenses do not prohibit granting Collateral Agent or any Lender a security interest therein;

(g) banker's liens, rights of setoff and Liens in favor of financial institutions incurred in the ordinary course of business arising in connection with Borrower's deposit accounts or securities accounts held at such institutions solely to secure payment of fees and similar costs and expenses and provided such accounts are maintained in compliance with Section 6.6 hereof;

(h) Liens arising from judgments (or appeal or other surety bonds relating to such judgments), decrees or attachments in circumstances not constituting an Event of Default under Section 8.4 or 8.7;

(i) Liens consisting of Permitted Licenses;

(j) Liens in favor of customs and revenue authorities in the ordinary course of business, to secure payment of customs duties in connection with the importation of goods; provided, however, the aggregate amount of such payments so secured at any given time shall not exceed [**] Dollars ($[**]) and such Liens shall be restricted to the goods imported in connection with which such payments;

(k) deposits to secure the performance of leases entered into in the ordinary course of business and not representing an obligation for borrowed money so long as (i) each such deposit is made at the commencement of a lease or its renewal when there is no underlying default under such lease and (ii) the aggregate amount of all such outstanding deposits does not exceed [**] Dollars ($[**]);

(l) easements, reservations, rights-of-way, restrictions, minor defects or irregularities in title and other similar Liens affecting Borrower's owned real property not interfering in any material respect with the ordinary course of Borrower's business;

(m) Liens granted in the ordinary course of business in connection with the financing of insurance premiums securing Indebtedness permitted by clause (j) of the definition of "Permitted Indebtedness" and not to exceed [**] Dollars ($[**]) at any time;

(n) Liens solely on cash collateral pledged to secure Indebtedness in respect of corporate credit cards permitted pursuant to clause (k) of the definition of "Permitted Indebtedness" and not to exceed [**] Dollars ($[**]) at any time;

(o) deposits to secure Indebtedness permitted by clause (l) of the definition of "Permitted Indebtedness" and not to exceed [**] Dollars ($[**]) at any time; and

(p) Liens incurred in the extension, renewal or refinancing of the Indebtedness secured by Liens described in (a) through (o), but any extension, renewal or replacement Lien must be limited to the property encumbered by the existing Lien and the principal amount of the Indebtedness may not increase.

"**Person**" is any individual, sole proprietorship, partnership, limited liability company, joint venture, company, trust, unincorporated organization, association, corporation, institution, public benefit corporation, firm, joint stock company, estate, entity or government agency.

"**Post Closing Letter**" is that certain Post Closing Letter dated as of the Effective Date by and between Collateral Agent and Borrower.

"**Prepayment Fee**" is, with respect to any Term Loan subject to prepayment prior to the Maturity Date, whether by mandatory or voluntary prepayment, acceleration or otherwise, an additional fee payable to the Lenders in amount equal to:

(i) for a prepayment made on or after the Funding Date of such Term Loan through and including the first anniversary of the Funding Date of such Term Loan, three percent (3.00%) of the principal amount of such Term Loan prepaid;

(ii) for a prepayment made after the date which is after the first anniversary of the Funding Date of such Term Loan through and including the second anniversary of the Funding Date of such Term Loan, two percent (2.00%) of the principal amount of the Term Loans prepaid; and

(iii) for a prepayment made after the date which is after the second anniversary of the Funding Date of such Term Loan and prior to the Maturity Date, one percent (1.00%) of the principal amount of the Term Loans prepaid.

"**Prime Rate**" is the rate of interest per annum from time to time published in the money rates section of The Wall Street Journal or any successor publication thereto as the "prime rate" then in effect; provided that if such rate of interest, as set forth from time to time in the money rates section of The Wall Street Journal, becomes unavailable for any reason as determined by Collateral Agent, the "Prime Rate" shall mean the rate of interest per annum announced by Bank as its prime rate in effect at its principal office in the State of California (such Bank announced Prime Rate not being intended to be the lowest rate of interest charged by Bank in connection with extensions of credit to debtors).

"**Pro Rata Share**" is, as of any date of determination, with respect to each Lender, a percentage (expressed as a decimal, rounded to the ninth decimal place) determined by dividing the outstanding principal amount of Term Loans held by such Lender by the aggregate outstanding principal amount of all Term Loans.

"**Registered Organization**" is any "registered organization" as defined in the Code with such additions to such term as may hereafter be made.

"Relevant Governmental Body" means the Federal Reserve Board and/or the Federal Reserve Bank of New York, or a committee officially endorsed or convened by the Federal Reserve Board and/or the Federal Reserve Bank of New York or any successor thereto.

"**Reporting Date**" means the date of the next Compliance Certificate is delivered or required to delivered pursuant to Section 6.2(b).

"**Required Lenders**" means (i) for so long as all of the Persons that are Lenders on the Effective Date (each an "**Original Lender**") have not assigned or transferred any of their interests in their Term Loan, Lenders holding one hundred percent (100%) of the aggregate outstanding principal balance of the Term Loan, or (ii) at any time from and after any Original Lender has assigned or transferred any interest in its Term Loan, Lenders holding at least sixty six percent (66%) of the aggregate outstanding principal balance of the Term Loan and, in respect of this clause (ii), (A) each Original Lender that has not assigned or transferred any portion of its Term Loan, (B) each assignee or transferee of an Original Lender's interest in the Term Loan, but only to the extent that such assignee or transferee is an Affiliate or Approved Fund of such Original Lender, and (C) any Person providing financing to any Person described in clauses (A) and (B) above; provided, however, that this clause (C) shall only apply upon the occurrence of a default, event of default or similar occurrence with respect to such financing.

"**Requirement of Law**" is as to any Person, the organizational or governing documents of such Person, and any law (statutory or common), treaty, rule or regulation or determination of an arbitrator or a court or other Governmental Authority, in each case applicable to or binding upon such Person or any of its property or to which such Person or any of its property is subject.

"**Responsible Officer**" is any of the President, Chief Executive Officer, Treasurer or principal financial officer of Borrower acting alone.

"**Secured Promissory Note**" is defined in Section 2.4.

"**Secured Promissory Note Record**" is a record maintained by each Lender with respect to the outstanding Obligations owed by Borrower to Lender and credits made thereto.

"**Securities Account**" is any "securities account" as defined in the Code with such additions to such term as may hereafter be made.

"**Shares**" is one hundred percent (100%) of the issued and outstanding capital stock, membership units or other securities owned or held of record by Borrower or Borrower's Subsidiary, in any Subsidiary.

"**Solvent**" is, with respect to any Person: the fair salable value of such Person's consolidated assets (including goodwill minus disposition costs) exceeds the fair value of such Person's liabilities; such Person is not left with unreasonably small capital after the transactions in this Agreement; and such Person is able to pay its debts (including trade debts) as they mature.

"**Subordinated Debt**" is indebtedness incurred by Borrower or any of its Subsidiaries subordinated to all Indebtedness of Borrower and/or its Subsidiaries to the Lenders (pursuant to a subordination, intercreditor, or other similar agreement in form and substance satisfactory to Collateral Agent and the Lenders entered into between Collateral Agent, Borrower, and/or any of its Subsidiaries, and the other creditor), on terms acceptable to Collateral Agent and the Lenders.

"**Subsidiary**" is, with respect to any Person, any Person of which more than fifty percent (50%) of the voting stock or other equity interests (in the case of Persons other than corporations) is owned or controlled, directly or indirectly, by such Person or through one or more intermediaries.

"**Term A Draw Period**" is the period commencing on the Effective Date and ending on the earlier of (i) December 31, 2022 and (ii) the occurrence of an Event of Default.

"**Term B Draw Period**" is the period commencing on the date of the occurrence of the Term B Milestone and ending on the earliest of (i) the date that is ninety (90) days after the occurrence of the Term B Milestone, (ii) December 31, 2022 and (iii) the occurrence of an Event of Default; provided, however, that the Term B Draw Period shall not commence if on the date of the occurrence of the Term B Milestone an Event of Default has occurred and is continuing.

"**Term B Milestone**" means Borrower's delivery to Collateral Agent and Lenders of evidence, satisfactory to Collateral Agent and Lenders in their reasonable discretion, that Borrower has [**].

"**Term C Draw Period**" is the period commencing on the date of the occurrence of the Term C Milestone and ending on the earliest of (i) the date that is ninety (90) days after the occurrence of the Term C Milestone, (ii) June 30, 2023 and (iii) the occurrence of an Event of Default; provided, however, that the Term C Draw Period shall not commence if on the date of the occurrence of the Term C Milestone an Event of Default has occurred and is continuing.

"**Term C Milestone**" means Borrower's delivery to Collateral Agent and Lenders of evidence, satisfactory to Collateral Agent and Lenders in their sole but reasonable discretion, that Borrower [**].

"**Term Loan**" is defined in Section 2.2(a)(iv) hereof.

"**Term A Loan**" is defined in Section 2.2(a)(i) hereof.

"**Term B Loan**" is defined in Section 2.2(a)(ii) hereof.

"**Term C Loan**" is defined in Section 2.2(a)(iii) hereof.

"**Term D Loan**" is defined in Section 2.2(a)(iv) hereof.

"**Term Loan Commitment**" is, for any Lender, the obligation of such Lender to make a Term Loan, up to the principal amount shown on Schedule 1.1**.** "**Term Loan Commitments**" means the aggregate amount of such commitments of all Lenders.

"**Trademarks**" means any trademark and servicemark rights, whether registered or not, applications to register and registrations of the same and like protections, and the entire goodwill of the business of Borrower connected with and symbolized by such trademarks.

"**Transfer**" is defined in Section 7.1.

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IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the Effective Date.

BORROWER:

MERSANA THERAPEUTICS, INC.

By /s/ Brian DeSchuytner
Name: Brian DeSchuytner
Title: Chief Financial Officer

COLLATERAL AGENT AND LENDER:

OXFORD FINANCE LLC

By /s/ Colette H. Featherly
Name: Colette H. Featherly
Title: Senior Vice President

LENDER:

SILICON VALLEY BANK

By /s/ Lauren Cole
Name: Lauren Cole
Title: Director

SCHEDULE 1.1

Lenders and Commitments

Term A Loans

Lender	Term Loan Commitment	Commitment Percentage
OXFORD FINANCE LLC	$30,000,000.00	50%
SILICON VALLEY BANK	$30,000,000.00	50%
TOTAL	**$60,000,000.00**	**100.00%**

Term B Loans

Lender	Term Loan Commitment	Commitment Percentage
OXFORD FINANCE LLC	$5,000,000.00	50%
SILICON VALLEY BANK	$5,000,000.00	50%
TOTAL	**$10,000,000.00**	**100.00%**

Term C Loans

Lender	Term Loan Commitment	Commitment Percentage
OXFORD FINANCE LLC	$5,000,000.00	50%
SILICON VALLEY BANK	$5,000,000.00	50%
TOTAL	**$10,000,000.00**	**100.00%**

Aggregate (all Term Loans)

Lender	Term Loan Commitment	Commitment Percentage
OXFORD FINANCE LLC	$40,000,000.00	50%
SILICON VALLEY BANK	$40,000,000.00	50%
TOTAL	**$80,000,000.00**	**100.00%**

Exhibit 10.15

CONFIDENTIAL
EXECUTION COPY

Certain identified information has been excluded from the exhibit because it is both (i) not material and (ii) is the type of information that the registrant treats as private or confidential. Double asterisks denote omissions.

AMENDED AND RESTATED COMMERCIAL LICENSE AND OPTION AGREEMENT

BETWEEN

SYNAFFIX B.V.

AND

MERSANA THERAPEUTICS, INC.

DATED AS OF JANUARY 3, 2019,

AS AMENDED AND RESTATED ON 22 NOVEMBER 2021

AMENDED AND RESTATED COMMERCIAL LICENSE AND OPTION AGREEMENT

This Amended and Restated Commercial License and Option Agreement (the "CLOA") is effective as of November 22, 2021 (the "Amendment Date"), by and between Synaffix B.V., with an office at Pivot Park Oss, Noord-Brabant, Kloosterstraat 9, 5349 AB, Oss, The Netherlands ("SNFX") and Mersana Therapeutics, Inc., with an office at 840 Memorial Drive, Cambridge, Massachusetts 02139, USA ("MERSANA"). SNFX and MERSANA are each referred to herein by name or, individually, as a "Party" or, collectively, as "Parties." This CLOA amends and restates in its entirety that certain Commercial License and Option Agreement, dated as of January 3, 2019 (the "Effective Date"), by and between the Parties (the "Original Agreement"), pursuant to Section 11.2 thereof.

BACKGROUND

WHEREAS SNFX Controls (as defined below) the Licensed Technology (as defined below); and

WHEREAS, SNFX desires to grant to MERSANA a non-exclusive license, and MERSANA desires to receive from SNFX a non-exclusive license, to the Licensed Technology to Develop, Manufacture, Commercialize and otherwise Exploit Products against Licensed Targets (each as defined below);

WHEREAS, SNFX granted such non-exclusive license to MERSANA in accordance with, and pursuant to, the terms and conditions of the Original Agreement;

WHEREAS, the Parties wish to amend and restate the Original Agreement as set forth in this CLOA.

NOW, **THEREFORE**, in consideration of the foregoing and the mutual covenants and agreements provided herein, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, SNFX and MERSANA hereby agree as follows:

ARTICLE 1
DEFINITIONS

As used in this CLOA, capitalized terms shall have the meanings indicated in this Article 1 or as specified elsewhere in this CLOA:

1.1 "Additional Target Substitution Notice" has the meaning set forth in Section 2.9(b).

1.2 "Additional Target Substitution Right" has the meaning set forth in Section 2.9(b).

1.3 "Affiliate" means, with respect to a Party, any Person that, directly or indirectly, through one (1) or more intermediaries, controls, is controlled by, or is under common control with such Party. For purposes of this Section 1.1, the term "control" means (a) the direct or indirect ownership of fifty percent (50%) or more of the voting securities entitled to elect the directors or management of the entity, or (b) the ability to otherwise control the management thereof.

1.4 "Agent" means a Third Party escrow agent appointed by SNFX from time to time who shall confidentially maintain a list of Unavailable Targets. On the Effective Date, the Agent is Prof. Jean-Paul Vulliéty, Partner at Lalive Avocats, 35, Rue de la Mairie, P.O. Box 6569, 1211Geneva 6, Switzerland, having an email address at jpvulliety@lalive.law.

1.5 "Agent Term" has the meaning set forth in Section

1.6 "Antibody" means [**].

1.7 "Antibody-Drug Conjugates" or "ADC" means a biopharmaceutical molecule for targeted therapy, consisting of either [**] and in each case ((i) and (ii)) is linked, via chemical linker(s), to one or more molecules.

1.8 "Bankruptcy Code" has the meaning set forth in Section 2.12.

1.9 "Business Day" means a day on which national banks located in the Commonwealth of Massachusetts and the Netherlands are open for commercial banking business other than a Saturday or Sunday.

1.10 "Calendar Quarter" means a three (3) month period beginning on January 1, April 1, July 1 or October 1 of any Calendar Year, except that (a) the first Calendar Quarter of the Term shall extend from the Effective Date to the end of the first full Calendar Quarter thereafter, and (b) the last Calendar Quarter of the Term shall end upon the expiration or termination of this CLOA.

1.11 "Calendar Year" means (a) for the first Calendar Year, the period commencing on the Effective Date and ending on December 31 of the year during which the Effective Date occurs, (b) for the last Calendar Year, the period commencing on January 1 of the last year of the Term, and ending on the last day of the Term, and (c) each interim period of twelve (12) months commencing on January 1 and ending on December 31.

1.12 "Clinical Trial" means a clinical investigation in human subjects that has been approved by a Regulatory Authority and is intended to discover or verify the clinical, pharmacological or other pharmacodynamic effects of a Product, or to identify any adverse reactions to a Product, or to study absorption, distribution, metabolism, or excretion of a Product with the objective of ascertaining its safety, activity or efficacy.

1.13 "Commercialize" or "Commercialization" means any and all activities of marketing, promoting, distributing, offering for sale or selling a Product in the Field in the Territory, including, for example, marketing, branding, pricing, distribution, sales, obtaining health insurance reimbursement coverage, market research, business analytics, pharmacovigilance and medical affairs activities, pre-commercial launch market development activities conducted in anticipation of Regulatory Approval to sell or market the Product, seeking Pricing Approval for the Product (if applicable), preparing advertising and promotional materials, sales force training, and all interactions and correspondence with a Regulatory Authority regarding Clinical Trials commenced following Regulatory Approval. When used as a verb, "Commercialize" means to engage in Commercialization.

1.14 "Commercially Reasonable Efforts" means: (a) with respect to the efforts to be expended by a Party with respect to any objective other than Developing, Manufacturing, Commercializing or otherwise Exploiting a Product, such reasonable, diligent, and good faith efforts as such Party would normally use to accomplish a similar objective under similar circumstances; and (b) with respect to any objective relating to Developing, Manufacturing, Commercializing or otherwise Exploiting a Product by a Party, that level of efforts and resources

that such Party would normally devote to the performance of such activities for a product owned by it, which is of a similar commercial potential at a similar stage in its lifecycle, in each case taking into account issues of safety and efficacy, product profile, the proprietary position, the then-current competitive environment for such product and the likely timing of such product's entry into the market, the pricing and launching strategy for such product, the regulatory environment and status of such product, and any other relevant factors, including other scientific, technical and commercial factors. For clarity, Commercially Reasonable Efforts will not mean that a Party guarantees that it will actually accomplish the applicable task or objective.

1.15 "Confidential Information" means all information, including technical, scientific and other information, Know-How, invention disclosures, patent applications, trade secrets, knowledge, technology, means, methods, processes, practices, proprietary materials, formulas, instructions, skills, techniques, procedures, specifications, data, results and other material, pre-clinical and clinical trial results, and any tangible embodiments of any of the foregoing, and any scientific, manufacturing, marketing and business plans, any financial and personnel matters relating to a Party or its present or future products, sales, suppliers, customers, employees, investors or business, that has been disclosed by or on behalf of such Party or such Party's Affiliates to the other Party or the other Party's Affiliates, in any manner, whether orally, visually, or in tangible form, either in connection with the discussions and negotiations pertaining to this CLOA or in the course of performing this CLOA.

1.16 "Control" or "Controlled" means, with respect to any information, material or Intellectual Property Right not in the public domain, possession of the right, whether directly or indirectly, by a Party or its Affiliates, of the ability, whether by sole or joint ownership, license or otherwise (other than by operation of the licenses and other grants in this CLOA) to grant the right to access or use, or to grant a license, sublicense or other right (including the right to reference Regulatory Documentation) to or under such information, material or Intellectual Property Right, as applicable, without violating the terms of any agreement or other arrangement with any Third Party.

1.17 "Cover," "Covering" or "Covered" means, with respect to a Patent in a country, that the Development, Manufacture or Commercialization of a Product in such country would, but for the ownership of or grant of a license to such Patent, infringe a Valid Claim of such Patent.

1.18 "CMO" or "CMOs" has the meaning set forth in Section 2.8.

1.19 "Develop" or "Development" means to discover, research or otherwise develop a process, compound or product, including conducting non-clinical, pre-clinical and clinical research and development activities, including toxicology, pharmacology and other pre-clinical development efforts, test method development and stability testing, process development, formulation development, delivery system development, quality assurance and quality control development, process and manufacturing scale-up and other manufacturing activities related to developing a product, statistical analysis, clinical pharmacology, clinical studies (including Clinical Trials and pre-approval studies), regulatory affairs, and Regulatory Approval and clinical study regulatory activities.

1.20 "Development Milestone Event" has the meaning set forth in Section 3.3.

1.21 "Development Milestone Payment" has the meaning set forth in Section 3.3.

1.22 "EMA" means the European Medicines Agency and any successor agency thereto.

1.23 "EU" means all countries that are officially recognized as member states of the European Union as of the Effective Date (which shall for the purposes of this CLOA include the United Kingdom even after it has ceased to be a member of the EU), Norway, Switzerland and all countries that are officially added into and recognized as member states of the European Union after the Effective Date.

1.24 "Executive Officer" shall mean for SNFX, the Chief Executive Officer of SNFX (or such individual's designee), and, for MERSANA, the Chief Executive Officer of MERSANA (or such individual's designee). If either position is vacant or either position does not exist, then the individual having the most nearly equivalent position (or such individual's designee) shall be deemed to be the Executive Officer of the relevant Party.

1.25 "Exploit" means make, have made, import, use, sell or offer for sale, including to research, Develop, Commercialize, register, Manufacture, have Manufactured, hold or keep (whether for disposal or otherwise), have used, export, transport, distribute, promote, market or have sold or otherwise dispose of.

1.26 "FD&C Act" means the U.S. Federal Food, Drug, and Cosmetic Act (21 U.S.C. §301, et seq.), as amended, together with any rules, regulations and requirements promulgated thereunder (including any amendments, additions, supplements, extensions and modifications thereto).

1.27 "FDA" means the U.S. Food and Drug Administration, or any successor agency thereto.

1.28 "Field" means the therapeutic use of antibody-drug conjugates in all human conditions, diseases and disorders.

1.29 "Final Target Verification" has the meaning set forth in Section 2.2(b)(4).

1.30 "First Commercial Sale" means, with respect to a Product in any country in the Territory, the first sale of such Product by MERSANA or its Affiliates or Sublicensees to a Third Party in such country for which monetary value has been received following, if required by Law to sell such Product, Regulatory Approval and Pricing Approval, but excluding the sale of any Product for use in any Clinical Trial or for compassionate, named patient (paid or unpaid) use.

1.31 "Good Clinical Practices" or "GCP" means the then-current standards for designing, conducting, recording, and reporting trials that involve the participation of human subjects as are required by applicable Regulatory Authorities or Law in the relevant jurisdiction. In the United States, GCP shall be based on Good Clinical Practices established through FDA guidances (including Guideline for Good Clinical Practice – ICH Harmonized Tripartite Guideline (ICH E6)), and, outside the United States, GCP shall be based on Guideline for Good Clinical Practice – ICH Harmonized Tripartite Guideline (ICH E6), as each may be amended or updated from time to time.

1.32 "Good Laboratory Practices" or "GLP" means the then-current good laboratory practice standards promulgated or endorsed by the FDA, as defined in U.S. 21 C.F.R. Part 58 (or such other comparable regulatory standards in jurisdictions outside the United States), as may be amended or updated from time to time.

1.33 "Good Manufacturing Practices" or "GMP" means all applicable then-current standards relating to manufacturing practices for fine chemicals, intermediates, bulk products or finished pharmaceutical products, including (a) all applicable requirements detailed in the FDA's current Good Manufacturing Practices regulations, U.S. 21 C.F.R. Parts 210 and 211 and "The

Rules Governing Medicinal Products in the European Community, Volume IV, Good Manufacturing Practice for Medicinal Products," as each may be amended or updated from time to time, and (b) all applicable Laws promulgated by any Regulatory Authority having jurisdiction over the manufacture of any Product, as applicable.

1.34 "Governmental Entity" means any regional, central, multi- or supra-national, federal, state, provincial, municipal or local court, commission, council or governmental, regulatory or administrative body, board, bureau, branch, agency, instrumentality, authority or tribunal, division or any subdivision thereof.

1.35 "Improvement" or "Improvements" means any discovery, invention, idea, contribution, method, finding, trade secret, or improvement, whether or not patentable, and all intellectual property therein, that is conceived, reduced to practice, or otherwise Developed by or on behalf of a Party or its Affiliates, in the course of Developing or Manufacturing a Product for a Licensed Target under this CLOA and the Supply Agreement, that is, subject to Section 5.2, a modification, improvement, alteration or enhancement to the Licensed Technology or MERSANA Technology, as applicable.

1.36 "IND" means (a) in the United States, an Investigational New Drug Application, as defined in the FD&C Act, filed with the FDA that is required to be filed with the FDA before conducting a Clinical Trial (including all supplements and amendments that may be filed with respect to the foregoing), and (b) any foreign counterpart of the foregoing (such as a Clinical Trial Application in the EU).

1.37 "Initial Target" means the first Target selected by MERSANA as of the Effective Date, identified as SLC34A2, with a common name of Sodium-dependent phosphate transport protein 2B, and with a UniProtKB/Swiss-Prot number of O95436.

1.38 "Initial Target License Fee" has the meaning set forth in Section 3.1.

1.39 "Initial Target Substitution Notice" has the meaning set forth in Section 2.9(a).

1.40 "Initial Target Substitution Right" has the meaning set forth in Section 2.9(a).

1.41 "Intellectual Property Rights" means Patents, copyrights, database rights, Know-How, and similar rights of any type (excluding trademarks) under the Laws of any Governmental Entity, including all applications, registrations, extensions and renewals relating to any of the foregoing.

1.42 "Joint Improvement" has the meaning set forth in Section 5.2(c).

1.43 "Joint Improvement Patent" means any Patent that claims or discloses any discovery, invention, idea, contribution, method, finding, trade secret or improvement included in a Joint Improvement.

1.44 "Know-How" means all technical information and other technical subject matter, proprietary methods, ideas, concepts, formulations, discoveries, inventions, devices, technology, trade secrets, compositions, designs, formulae, know-how, show-how, specifications, drawings, techniques, results, data, processes, methods, procedures, designs and regulatory correspondence and information (including pharmacological, toxicological, pre-clinical, clinical and manufacturing test data, manufacturing protocols, analytical methods and data, quality control data and process validation), whether or not patentable, including any tangible embodiments of the foregoing.

1.45 "Knowledge" means, with respect to a Party or its Affiliates, the good faith understanding of the facts and information in possession of an executive officer of, or in-house legal counsel of, or in-house patent agents employed by, such Party or its Affiliates after (a) inquiry of in-house employees with relevant knowledge and outside legal counsel and (b) reasonable investigation of the relevant internal records of a Party. For purposes of this definition, an "executive officer" shall mean any person in the position of vice president, senior vice president, president or chief executive officer of a Party or any of its Affiliates.

1.46 "Law" means, individually and collectively, any and all laws, statues, ordinances, orders, rules, rulings, directives and regulations (including written governmental interpretations thereof, the guidance related thereto, or the application thereof) of any kind whatsoever of any Governmental Entity or Regulatory Authority, and any judicial, governmental, or administrative order, judgement, decree, or ruling, within the applicable jurisdiction.

1.47 "License" has the meaning set forth in Section 2.2(c).

1.48 "License Fee" means each of the license fees referred to in Sections 3.1 and 3.2 hereof, and "License Fees" means all such license fees collectively.

1.49 "Licensed Know-How" means all Know-How, including the Know-How listed on Schedule 2 hereof, but only to the extent (a) Controlled by SNFX or any of its Affiliates as of the Effective Date or at any time during the Term, and (b) reasonably necessary or useful to Develop, Manufacture, Commercialize or otherwise Exploit an antibody-drug conjugate obtained by [**].

1.50 "Licensed Patents" means those Patents Controlled by SNFX or any of its Affiliates as of the Effective Date or at any time during the Term, including those Patents listed in Schedule 1 attached hereto, that are reasonably necessary or useful to Develop, Manufacture, Commercialize or otherwise Exploit an antibody-drug conjugate obtained by [**].

1.51 "Licensed Target" has the meaning set forth in Section 2.2(c).

1.52 "Licensed Technology" means the Licensed Know-How and the Licensed Patents.

1.53 "Litigation Costs" has the meaning set forth in Section 8.1.

1.54 "Losses" has the meaning set forth in Section 8.1.

1.55 "Major Market Country" means each of [**].

1.56 "Manufacture" or "Manufacturing" means all operations necessary or appropriate to make, test, release, package, store, label, supply and ship a Product, in accordance with applicable packaging, controls, industry standards, GMPs, applicable Laws, and the Product's specifications.

1.57 "Manufacturing Processes" has the meaning set forth in Section 2.7.

1.58 "Material" or "Materials" has the meaning set forth in Section 2.6.

1.59 "Material Transfer Agreement" or "MTA" means that certain *Materials Transfer Agreement* by and between the Parties with an effective date of November 17, 2017, as amended by that certain *Materials Transfer Agreement Amendment #1* dated as of August 22, 2018, and as

further amended by that certain *Materials Transfer Agreement Amendment #2* dated as of December 30, 2018, that are attached to this CLOA as Exhibit A through Exhibit C, respectively.

1.60 "MERSANA Indemnitees" has the meaning set forth in Section 8.2.

1.61 "MERSANA Technology" means MERSANA's proprietary technology used for the creation, identification, Development, Manufacture, Commercialization or other Exploitation of antibody-drug conjugates, including, but not limited to, linkers and payloads.

1.62 "Mutual Non-Disclosure Agreement" means that certain *Mutual Non-Disclosure Agreement* by and between the Parties with an effective date of October 14, 2015, as amended by that certain *Confidential Disclosure Agreement Amendment* with an effective date of October 13, 2018.

1.63 "NDA" means a "New Drug Application," as defined in the FD&C Act and applicable regulations promulgated thereunder by the FDA and all amendments and supplements thereto filed with the FDA, or the equivalent application filed with any Regulatory Authority, including all documents, data, and other information concerning Product, which are necessary for gaining Regulatory Approval to market and sell Product in the relevant jurisdiction.

1.64 "Net Sales" means the gross amounts invoiced for a Product by MERSANA, its Affiliates and their respective Sublicensees for sales or other disposition of such Product to a Third Party purchaser, less the following to the extent that the following are directly incurred with respect to a Product, or allocated specifically to a Product in accordance with generally accepted accounting principles consistently applied across the books and records of MERSANA, its Affiliates and their respective Sublicensees, as applicable:

(a) customer, trade, quantity and cash discounts actually allowed with respect to such sales which effectively reduce the selling price and are appropriately deducted from sales under appropriate accounting principles, consistently applied;

(b) rejected goods, damaged or defective goods, recalls, returns, rebates, field destroys, reimbursements, chargebacks and other allowances actually allowed with respect to such sales;

(c) retroactive price reductions that are actually allowed or granted;

(d) deductions to the gross invoice price of Product imposed by Regulatory Authorities or other Governmental Entities;

(e) sales (such as VAT or its equivalent) and excise taxes, other consumption taxes, and customs duties (excluding any taxes paid on the income from such sales) to the extent the selling Person is not otherwise entitled to a credit or a refund for such taxes or duties;

(f) a reasonable reserve for non-collectable receivables related to Product (provided that, such amounts shall not exceed two percent (2%) of Net Sales in a given Calendar Year and that if such amounts are later collected, they shall be included in Net Sales in the Calendar Quarter of collection); and

(g) charges for packing, freight, shipping and insurance (to the extent separately stated on the invoice).

To the extent that MERSANA, its Affiliates and its Sublicensees receive consideration other than or in addition to cash upon the sale or disposition of a Product to a Third Party

purchaser, Net Sales for such Product shall be calculated based on the average price of such Product sold for cash during the period based on the quantity of Product sold. The Parties agree that such price, less any cash consideration received with respect to a Product, reflects the fair market value of any non-cash consideration received with respect to such Product.

Any Products for which no monetary consideration is received that are used for promotional or advertising purposes, used for free samples, or otherwise distributed to patients unable to purchase the same (including patients in Clinical Trials or compassionate use programs) shall not be included in Net Sales. Donations for charity reasons (to avoid doubt, for which no monetary consideration is received) shall also not be included in Net Sales.

If any Product is sold as part of a Combination Product (as defined below), the Net Sales for such Product shall be determined by multiplying the applicable Net Sales of the Product (as determined without the application of this paragraph) by the fraction, A/(A+B), where A is the average per unit sale price of the Product component of the Combination Product when sold separately as a stand-alone product in finished form in the country in which the Combination Product is sold and B is the average per unit sale of the other active ingredients contained in the Combination Product when sold separately as stand-alone products in finished form in the country in which the Combination Product is sold, in each case during the applicable royalty reporting period in accordance with Section 3.6(b) or, if sales of such stand-alone products did not occur in such country in the applicable period, then in the most recent royalty reporting period in which such sales of such stand-alone products occurred in such country. If such average sale prices cannot be determined, Net Sales shall be mutually agreed upon by the Parties based on the relative fair market value of each component, such agreement not to be unreasonably withheld. As used herein, "Combination Product" means any pharmaceutical product that consists of a Product as well as one or more other active therapeutic ingredients, other than an active therapeutic ingredient conjugated to such Product.

1.65 "Sublicensee Option" has the meaning set forth in Section 2.4(b).

1.66 "New Target" has the meaning set forth in Section 2.2(b)(4).

1.67 "Notice Period" has the meaning set forth in Section 10.2(b).

1.68 "Option" has the meaning set forth in Section 2.2(a).

1.69 "Option Notice" has the meaning set forth in Section 2.2(b)(5).

1.70 "Option Term" has the meaning set forth in Section 2.2(a).

1.71 "Patents" means any and all national, regional and international: (a) patents and pending patent applications (including provisional patent applications); (b) patent applications filed from the foregoing or from an application claiming priority to the foregoing, including all provisional applications, converted provisionals, continuations, continuations-in-part, continued prosecution, divisional and substitute applications, renewals, continued prosecution applications and all patents granted thereon; (c) patents-of-addition, revalidations, reissues, reexaminations and extensions or restorations (including any supplementary protection certificates and the like) by existing or future extension or restoration mechanisms, including patent term adjustments, patent term extensions, supplementary protection certificates or the equivalent thereof; (d) inventor's certificates, utility models, petty patents, innovation patents and design patents; (e) other forms of government-issued rights substantially similar to any of the foregoing, including so-called pipeline protection or any importation, revalidation, confirmation or introduction patent or registration patent or patent of additions to any of such foregoing; and (f) United States and foreign counterparts of any of the foregoing.

1.72 "Person" means any individual, corporation, partnership, association, joint-stock company, trust, unincorporated organization or government or political subdivision thereof.

1.73 "Phase 1 Trial" means (a) both a Phase 1a Trial and a Phase 1b Trial, or (b) a single trial that may contain elements of both a Phase 1a Trial and a Phase 1b Trial.

(a) "Phase 1a Trial" means a Clinical Trial of a compound, the principal purpose of which is a preliminary determination of safety, pharmacokinetics, and pharmacodynamic parameters in healthy individuals or patients, as described in 21 C.F.R. 312.21(a), or a similar clinical study prescribed by the Regulatory Authorities in a foreign country.

(b) "Phase 1b Trial" means a Clinical Trial of a compound, the principal purpose of which is a further determination of safety and pharmacokinetics (including exploration of trends of a biomarker-based or clinical endpoint-based efficacy relationship to dose which are not designed to be statistically significant) of the compound whether or not in combination with concomitant treatment after an initial Phase 1a Clinical Trial, prior to commencement of Phase 2 Trials or Phase 3 Trials, and which provides (itself or together with other available data) sufficient evidence of safety to be included in filings for a Phase 2 Trial or a Phase 3 Trial with Regulatory Authorities, or a similar clinical study prescribed by the Regulatory Authorities in a foreign country.

1.74 "Phase 2 Trial" means a Clinical Trial of a product in any country that would satisfy the requirements of U.S. 21 C.F.R. Part 312.21(b) and is intended to explore a variety of doses, dose response, and duration of effect, and to generate evidence of clinical safety and effectiveness for a particular indication or indications in a target patient population, or a similar clinical study prescribed by the relevant Regulatory Authorities in a country other than the United States.

1.75 "Phase 3 Trial" means a Clinical Trial of a product in any country that would satisfy the requirements of U.S. 21 C.F.R. Part 312.21(c) and is intended to (a) establish that the product is safe and efficacious for its intended use, (b) define contraindications, warnings, precautions and adverse reactions that are associated with the product in the dosage range to be prescribed, and (c) support Regulatory Approval for such product, or a similar clinical study prescribed by the relevant Regulatory Authorities in a country other than the United States.

1.76 "Pivotal Clinical Trial" means a Clinical Trial of a product on a sufficient number of subjects that, prior to commencement of the trial, satisfies both of the following ((a) and (b)):

(a) such trial is designed to establish that such product has an acceptable safety and efficacy profile for its intended use, and to determine warnings, precautions, and adverse reactions that are associated with such product in the dosage range to be prescribed, which trial is intended to support Regulatory Approval of such product, or a similar clinical study prescribed by the FDA, EMA or other applicable Regulatory Authority; and

(b) such trial is a registration trial sufficient for filing an application for a Regulatory Approval for such product in the U.S. or another country or some or all of an extra-national territory, as evidenced by (i) an agreement with or statement from the FDA, the EMA or other applicable Regulatory Authority on a Special Protocol Assessment or equivalent, or (ii) other guidance or minutes issued by the FDA, EMA or other applicable Regulatory Authority, for such registration trial.

1.77 "Preferentially Binds" shall mean, [**].

1.78 "Pricing Approval" means, in a country where a Governmental Entity authorizes reimbursement for, or approves or determines pricing for, biopharmaceutical products, receipt (or, if required to make such authorization, approval or determination effective, publication) of such reimbursement authorization or pricing approval or determination (as the case may be).

1.79 "Product" means any product comprising or consisting of an ADC that Preferentially Binds a Licensed Target that uses or incorporates MERSANA Technology and (a) which uses or comprises the Licensed Technology; or (b) which is Covered by any Valid Claim of the Licensed Patents.

1.80 "Prosecute" or "Prosecution" means, with respect to Patents, the filing for, prosecuting, responding to oppositions, nullity actions, re-examinations, revocation actions and similar proceedings (including conducting or participating in interference and oppositions) filed by Third Parties against, and maintaining, Patents.

1.81 "Regulatory Approval" means, with respect to a country or jurisdiction within the Territory, final regulatory approval (excluding Pricing Approval) required for the Manufacture and Commercialization of a Product for a disease or condition in accordance with the Laws of such country or jurisdiction. In the United States, its territories and possessions, Regulatory Approval means approval of a NDA, Biologics License Application or an equivalent by the FDA. In the EU, Regulatory Approval means marketing authorization from the EMA.

1.82 "Regulatory Authority" means any national (e.g., the FDA), supranational (e.g., the EMA), regional, state or local regulatory agency, department, bureau, commission, council or other Governmental Entity in any jurisdiction of the world involved in the granting of Regulatory Approval or Pricing Approval for biopharmaceutical products.

1.83 "Regulatory Documentation" means all submissions to Regulatory Authorities and other Governmental Entities, including for Clinical Trials, preclinical trials, tests, and biostudies, relating to a Product, including all INDs, NDAs, Biologics License Application, Regulatory Approvals and Pricing Approvals, as well as all correspondence with Governmental Entities (registration and licenses, pricing and reimbursement correspondence, regulatory drug lists, advertising and promotion documents), adverse event files, complaint files, Manufacturing records and inspection reports.

1.84 "Representatives" means a Party's Affiliates and its and their officers, directors, employees, contractors, agents (including internal and external legal counsel and accountants) and advisors.

1.85 "Reservation Fee" has the meaning set forth in Section 2.2(b)(7).

1.86 "Reservation Notice" has the meaning set forth in Section 2.2(b)(5).

1.87 "Reservation Period" has the meaning set forth in Section 2.2(b)(7).

1.88 "Reserved Target" has the meaning set forth in Section 2.2(b)(7).

1.89 "Royalty Term" means, on a Product-by-Product and country-by-country basis, the period beginning on the First Commercial Sale of such Product in such country and ending on the expiration, cessation of enforceability or abandonment of the last Valid Claim in all Licensed Patents that Cover such Product in such country.

1.90 "Sales Milestone Event" has the meaning set forth in Section 3.5.

1.91 "Sales Milestone Payment" has the meaning set forth in Section 3.5.

1.92 "Sublicense Agreement" has the meaning set forth in Section 2.4.

1.93 "Sublicensee" means a Third Party to whom MERSANA or its Affiliate enters into a Sublicense Agreement hereunder to Develop, Manufacture, Commercialize, or otherwise Exploit a Product, but excluding wholesalers and other physical distributors. For the avoidance of doubt, if MERSANA sells to a wholesaler or other physical distributor, such sale to such wholesaler or distributor shall be deemed a sale for purposes of calculating Net Sales hereunder.

1.94 "Sublicensee Option" has the meaning set forth in Section 2.4(b).

1.95 "Sublicensee Option Period" has the meaning set forth in Section 2.4(b).

1.96 "Sublicensee Targets" has the meaning set forth in Section 2.4(b).

1.97 "SNFX Indemnitees" has the meaning set forth in Section 8.1.

1.98 "Supply Agreement" shall mean the supply agreement to be negotiated and agreed upon between the Parties, the key terms of which are attached as Schedule 3 hereto.

1.99 "Target" means (a) a specific protein as defined by its UniProtKB/Swiss-Prot number (including any glyco or lipoprotein or carbohydrate), and any unique fragment, peptide, epitope or isoform thereof, and any naturally occurring allelic variant or splice variants thereof, that are encoded by the same gene ("Antigen"), or (b) [**].

1.100 "Target Approval Request Notice" has the meaning set forth in Section 2.2(b)(1).

1.101 "Tech Transfer" has the meaning set forth in Section 2.7.

1.102 "Term" has the meaning set forth in Section 10.1.

1.103 "Terminated Target" has the meaning set forth in Section 10.2(a).

1.104 "Termination Notice" has the meaning set forth in Section 2.4(b).

1.105 "Territory" means worldwide.

1.106 "Three-way Mutual Non-Disclosure Agreement" means that certain *3-Way Mutual Non-Disclosure Agreement* by and between the Parties and Me Jean-Paul Vulliety (escrow agent) with an effective date of August 2, 2018, as amended by that certain *Confidential Disclosure Agreement Amendment* with an effective date of November 29, 2018 and that certain *Confidential Disclosure Agreement Amendment* with an effective date of January 31, 2019, that are attached to this CLOA as Exhibit D and Exhibit E, respectively, and that the Parties intend shall be further amended within [**] of the Amendment Date.

1.107 "Third Party" means any Person other than SNFX, MERSANA or any Affiliate of either SNFX or MERSANA.

1.108 "Unavailable Target" means, with respect to a Target [**] any Target for which (a) SNFX or any of its Affiliates has granted an exclusive license or an exclusive option to a license, that in either case has not expired or terminated, to a Third Party to Develop, Manufacture, Commercialize and otherwise Exploit a product (i) against the Target, or (ii) against a [**] Antigen [**], in each case ((i) and (ii)) to the extent such exclusive license or

exclusive option would conflict with the grant of rights with respect to such Target to MERSANA hereunder prior to the date Agent sends notice of Final Target Verification (as defined herein), the date of the Initial Target Substitution Notice or the date of the Additional Target Substitution Notice, as applicable, to MERSANA, (b) SNFX has notified the Agent that it has exclusively reserved for itself or its Affiliates such Target (without, for the avoidance of doubt, any obligation to conduct Development activities with respect to such Target); provided that the number of such reserved Targets shall not exceed four (4) at any given time and SNFX will not substitute any such reserved Target more than one (1) time per Calendar Quarter, or (c) SNFX has initiated a *bona fide* program for Development of a product against the Target, for which SNFX has approved a research plan, has identified an antibody-drug conjugate or other product against such Target to be used in such program, and has commenced activities to make an antibody-drug conjugate or other product against such Target, and in the case of clause (a), (b) or (c), SNFX has provided written notice thereof to Agent prior to the date Agent sends notice of Final Target Verification to MERSANA, the date of the Initial Target Substitution Notice or the date of the Additional Target Substitution Notice, as applicable. For the avoidance of doubt, [**].

1.109 "Valid Claim" means, with respect to a Patent in a country, any claim of an (a) issued patent that has not (i) been held unpatentable, unenforceable or invalid by a court or other Governmental Entity of competent jurisdiction in a decision that is not appealed or is unappealable, or (ii) expired, irretrievably lapsed or been abandoned, revoked, admitted to be invalid or unenforceable through reissue, dedicated to the public or disclaimed, or (b) application for a Patent that (i) has been pending for less than [**] years and is being prosecuted in good faith and has not been cancelled, withdrawn or abandoned or (ii) has not been admitted to be invalid or unenforceable through reissue, reexamination, or disclaimer, and which is not subject to an interference claim.

1.110 Unless the context of this CLOA otherwise requires: (a) words of any gender include each other gender; (b) words using the singular or plural number also include the plural or singular number, respectively; (c) the terms "hereof," "herein," "hereby" and derivative or similar words refer to this entire CLOA; (d) the terms "Article," "Section" or "Exhibit" refer to the specified Article, Section or Exhibit of this CLOA; and (e) the term "including" means "including without limitation" and "but not limited to"; (f) the words "will" and "shall" have the same meaning, (g) the word "or" has the inclusive meaning represented by the phrase "and/or", and (h) all references to monetary amounts are to United States of America currency (U.S. Dollars). Whenever this CLOA refers to a number of days, such number shall refer to calendar days. The preamble to this CLOA and the descriptive headings of Articles and Sections are inserted solely for convenience of reference and are not intended as complete or accurate descriptions of the content of this CLOA or of such Articles or Sections.

ARTICLE 2
LICENSES, SUPPLY AND TECHNOLOGY TRANSFER

2.1. Non-Exclusive License and Research License.

(a) During the Term and thereafter as provided in Sections 10.3(a)(2) and 10.3(a)(3) and in accordance with the terms and conditions of this CLOA, SNFX, on behalf of itself and its Affiliates, shall grant and does hereby grant to MERSANA and its Affiliates a non-exclusive, transferable only in accordance with Section 11.5, royalty-bearing right and license, with the right to grant sublicenses (through multiple tiers) only in accordance with Section 2.4, to and under the Licensed Technology to Develop, Manufacture, Commercialize and otherwise Exploit Products that are, in each case, against the Initial Target, in the Field in the Territory.

(b) SNFX, on behalf of itself and its Affiliates, shall grant and does hereby grant to MERSANA and its Affiliates a non-exclusive, transferable only in accordance with

Section 11.5, royalty-free right and license, with the right to grant sublicenses (through multiple tiers) solely to Third Parties acting on MERSANA's behalf and in accordance with Section 2.4, to use the Materials (as defined herein) supplied pursuant to Section 2.6 to conduct internal research and perform or have performed Manufacturing activities for such research for the purpose of determining whether to exercise an Option right hereunder (i) after confirmation that a Target is not an Unavailable Target, (ii) after reservation of such Target (including payment of the applicable Reservation Fee for such Target) pursuant to Section 2.2(b)(7), and (iii) during the corresponding Reservation Period for such Target.

2.2. Option Right and Non-Exclusive License for Additional Targets

(a) At any time on or after the Effective Date and until the Option Term expiration date set forth below in this Section 2.2(a) for each Option, MERSANA shall have [**] options (represented by [**] (inclusive), and each an "Option") to obtain a non-exclusive license under the Licensed Technology for Products against an additional Target (i.e., [**]) in the Field, in the Territory, provided however, that each such additional Target selected for an Option is not an Unavailable Target on the day that the Agent provides notice of Final Target Verification (as defined below) to MERSANA for such Target. On an Option-by-Option basis, each Option may be exercised from the Effective Date until the corresponding Option Term expiration date provided below (as applied to each Target, the "Option Term" for such Target), and the Option right for each of [**] will expire on the corresponding Option Term expiration date shown below if such Option right remains unexercised on such expiration date.

Option Number	Option Term Expiration Date
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]

(b) During any applicable Option Term, MERSANA may exercise its reservation rights and Option rights for the corresponding Target set forth in Section 2.2(a) as follows:

(1) MERSANA shall send a written notice to the Agent identifying the Target [**] it wishes to confirm is not an Unavailable Target or reserve for the purpose of the grant of a License under Section 2.2(c) of this CLOA ("Target Approval Request Notice").

(2) Within [**] days after its receipt of the Target Approval Request Notice, the Agent shall verify, and confirm in writing to MERSANA and SNFX, whether each requested Target is an Unavailable Target and, if a Target is an Unavailable Target, whether the Unavailable Target is an Unavailable Target as a result of clause (b) or clause (c) of Section 1.108.

(3) If the proposed Target is an Unavailable Target, MERSANA will not have exhausted any of its rights to designate another Target and the above procedure may be repeated by MERSANA until such a notice is made with respect to a Target that is not an Unavailable Target; and provided, further, that such process shall not extend or otherwise alter the Option Term specified for any given Target as set forth in Section 2.2(a).

(4) If the Target requested by MERSANA is not an Unavailable Target, the Agent shall confirm in writing to MERSANA that the Target is available for the grant of a License within [**] days after its receipt of the Target Approval Request Notice ("Final Target Verification"). Following the date the Agent sends a Final Target Verification notice to MERSANA, SNFX shall not take any action that would result in a Target becoming an Unavailable Target (i) during the [**] period in Section 2.2(b)(5), (ii) during the applicable Reservation Period (as defined below, if applicable) if MERSANA reserves such Target pursuant to the Target reservation process set forth in Sections 2.2(b)(5) and 2.2(b)(7), including paying the applicable Reservation Fee, or (iii) if MERSANA provides an Option Notice (as defined below), during the [**] that MERSANA has to pay the respective License Fee (if any) under Section 2.2(b)(6). MERSANA shall not provide any additional Target Approval Request Notices in any Calendar Quarter [**] after Agent has confirmed in writing to MERSANA [**] in such Calendar Quarter that a [**] is not an Unavailable Target and is available for the grant of a License. For clarity, [**] in any particular Calendar Quarter described above, MERSANA shall not be limited in the number of times it provides a Target Approval Request Notice, and Agent shall not be limited in the number of times it processes a Target Approval Request Notice.

(5) Within [**] Days after receiving such Final Target Verification, MERSANA may provide written notification to SNFX of its right to either (i) in respect of Options [**] (inclusive) and Options [**] (inclusive) only, reserve the Target subject to Section 2.2(b)(7) (the "Reservation Notice") or (ii) in respect of Options [**] (inclusive), exercise the Option right under this Section 2.2(b) (the "Option Notice"), and in the case of either (i) or (ii), the Reservation Notice or Option Notice (as applicable) shall indicate the identity of the Target [**], which shall be specified by its common name(s) and UniProtKB/Swiss-Prot number(s).

(6) With respect to each Option Notice, within [**] days after MERSANA provides SNFX with such Option Notice, and following receipt of a written invoice, MERSANA shall pay the appropriate License Fee to SNFX, as set forth in Section 3.2, with respect to such Target.

(7) During the applicable Option Terms, MERSANA may, with respect to each of Options [**] (inclusive) and Options [**] (inclusive), exercise its right to reserve a Target that is not an Unavailable Target (each, a "Reserved Target") pursuant to a Reservation Notice, for a period of up to [**] months each (the "Reservation Period"); provided that, (A) MERSANA may unreserve a Reserved Target at any time upon written notice to SNFX, with the Reservation Period for such Reserved Target being deemed to expire on the date of such written notice; and (B) if the Option Term has expired in respect of an Option without any Target being reserved in accordance with this Section 2.2(b)(7), MERSANA's right to reserve a Target with respect to such Option shall also expire. With respect to any Reserved Target, SNFX shall not take any action that would result in such Target becoming an Unavailable Target during the applicable Reservation Period. MERSANA shall pay to SNFX a one-time non-refundable reservation issuance fee for each Reserved Target (each a "Reservation Fee") in the following

amounts, as applicable: (i) [**] U.S. Dollars (U.S. $[**]) for each of Option [**]; and (ii) [**] U.S. Dollars (U.S. $[**]) for each of Options [**] (inclusive); which shall be payable within [**] days after MERSANA provides SNFX with a Reservation Notice for such Target, and following receipt of a written invoice from SNFX. If MERSANA subsequently elects to exercise its Option right under this Section 2.2(b) for a Reserved Target during the Reservation Period, then MERSANA shall provide an Option Notice and pay the remainder of the License Fee owed pursuant to the procedures set forth in Section 2.2(b)(6); provided that the Reservation Fee(s) previously paid by MERSANA in relation to such Option shall be deducted from the License Fee owed by MERSANA under Section 3.2 for such Target. If MERSANA does not subsequently elect to exercise its Option right under this Section 2.2(b) for a Reserved Target during the Reservation Period, then the Reservation Fee paid by MERSANA for such Reserved Target shall be deemed to be final, nonrefundable and non-creditable against any other payments owed by MERSANA to SNFX.

(c) Only upon MERSANA exercising its Option right for a given Target by (i) obtaining Final Target Verification for such Target, (ii) providing its Option Notice for such Target, and (iii) making payment of the appropriate License Fee (if applicable), shall the Option right of MERSANA be considered fully exercised with respect to such Target whereby, during the Term and thereafter as provided in Section 10.3(a)(2), and in accordance with the terms and conditions of this CLOA, SNFX, on behalf of itself and its Affiliates, shall grant and does hereby grant to MERSANA and its Affiliates a non-exclusive, transferable only in accordance with Section 11.5, royalty-bearing right and license, with the right to grant sublicenses (through multiple tiers) only in accordance with Section 2.4, to and under the Licensed Technology to Develop, Manufacture, Commercialize and otherwise Exploit Products that are, in each case, against such Target, in the Field in the Territory (each such grant, a "License," and each such Target, including the Initial Target, a "Licensed Target").

(d) SNFX shall be solely responsible for the Agent's performance of its obligations under this CLOA and SNFX shall be liable for any breach by the Agent of any such obligation or any error or omission of or by the Agent in performing such obligations related to (i) the correct assessment and reservation of each Target; (ii) adherence to the timelines, both (i) and (ii) as set forth in Section 2.2(b) and in Section 2.9, and (iii) Agent's confidentiality obligations in the Three-Way Mutual Non-Disclosure Agreement (or any similar three-way confidentiality agreement with an Agent entered into pursuant to Section 2.10).

(e) For clarity, except as expressly provided herein, SNFX grants no other right or license, including any rights or licenses to the Licensed Technology or any other Intellectual Property Rights not otherwise expressly granted herein. Notwithstanding anything to the contrary in this CLOA and without limitation of any rights granted or reserved to SNFX pursuant to any other term or condition of this CLOA, SNFX hereby expressly retains, on behalf of itself and its Affiliates and sublicensees, all rights in and to the Licensed Technology, including with respect to the Licensed Target, to Develop, Manufacture, Commercialize and otherwise Exploit products inside and outside the Field throughout the Territory and nothing in this CLOA shall be deemed or construed to in any way to restrict any such exploitation.

(f) As of the Amendment Date, MERSANA shall be deemed to have exercised its Option right under Option [**] with respect to the Target identified in a certain letter agreement signed by the Parties as of the Amendment Date, and such Target shall be a Licensed Target that is Licensed pursuant to Section 2.2(c). [**].

2.3. [**] Products. For the avoidance of doubt, if MERSANA is developing, or desires to develop, a Product containing a [**] ADC against a Target [**] and wishes to reserve such Target pursuant to Section 2.2(b)(7) or exercise its Option pursuant to Section 2.2(c), MERSANA shall designate the Target [**] for the Target verification process set out in Section

2.2(b). Provided such Target is not an Unavailable Target, and subject to MERSANA exercising its rights in accordance with the procedure in Section 2.2(b)(7) or Section 2.2(c) (as applicable), the corresponding Reserved Target and Licensed Target [**] selected by MERSANA. In addition and for clarity, and in each case subject to Section 7.5(a): (a) where MERSANA or its Sublicensee Develops, Manufactures, Commercializes and otherwise Exploits a Product comprising a [**] ADC under a License (i.e. the Licensed Target is a Target [**], SNFX shall not be prevented from (i) granting exclusive and non-exclusive licenses to products that are directed to any [**] of such Licensed Target only; (ii) granting exclusive and non-exclusive licenses to products that are directed to any individual Antigen of such Licensed Target and one (1) or more Antigens not included in such Licensed Target; or (iii) granting non-exclusive licenses to products that are directed [**] in such Licensed Target (but not exclusive licenses to [**] covered by such Licensed Target); and (b) where the Licensed Target [**] in accordance with this Section 2.3, neither MERSANA nor its Sublicensees shall be permitted to Develop, Commercialize or otherwise Exploit a Product [**] under the License to such Licensed Target, unless such Antigen is also, [**], a Licensed Target under this CLOA.

2.4. Sublicenses.

(a) The rights and licenses granted pursuant to Section 2.1 and Section 2.2 include the right to grant sublicenses (through multiple tiers) to Third Parties pursuant to a written sublicense agreement (each a "Sublicense Agreement"); provided, however, that (a) MERSANA or its Affiliate may only enter into Sublicense Agreements with respect to Licensed Targets, and with respect to any specific Licensed Target, only after the corresponding License Fee for such Licensed Target has been paid to SNFX; (b) MERSANA shall provide SNFX with a copy of each such Sublicense Agreement granted under this Section 2.4, and any amendment thereto, within thirty (30) days following execution thereof, it being understood and agreed to by SNFX that commercially sensitive information may be redacted from such copies to the extent such information is not necessary to verify compliance hereunder, and the terms, conditions and existence of such Sublicense Agreement and amendments thereto shall be deemed the Confidential Information of MERSANA; (c) any such Sublicense Agreement and amendments thereto shall be consistent with and subject to the terms and conditions of this CLOA; (d) MERSANA shall remain fully responsible to SNFX for the performance of its Sublicensee(s) with respect to MERSANA's obligations under the terms of this CLOA; and (e) MERSANA shall reserve the right under each Sublicense Agreement to conduct an audit of its Sublicensee in a comparable manner to Section 3.12. MERSANA shall remain obligated to make all payments due to SNFX under the terms of this CLOA with respect to the activities of its Sublicensees.

(b) If SNFX delivers a notice of termination to MERSANA pursuant to any of Sections 10.2(b), 10.2(c) or 10.2(d) (each a "Termination Notice"), SNFX will grant, and hereby grants, an option (the "Sublicensee Option") to each Sublicensee (that is not (i) at the time of such termination, in material breach of its Sublicense Agreement, or (ii) the party challenging a Licensed Patent in respect of Section 10.2(d)) to enter into a license agreement directly with SNFX with respect to Products against any Licensed Targets that are also within the scope of such Sublicensee's sublicense from MERSANA under the Licensed Technology, as of the date of the Termination Notice (such Licensed Targets, the "Sublicensee Targets"). Each Sublicensee may exercise its Sublicensee Option by providing a written notice to SNFX within [**] from the date the Termination Notice is given ("Sublicensee Option Period"). If a Sublicensee exercises the Sublicensee Option prior to the expiration of the Sublicensee Option Period, SNFX and such Sublicensee shall enter into a license agreement directly with each other (the "New License Agreement") on substantially the same terms and conditions as those set forth in this CLOA, including license scope, territory, duration of license grant and financial terms; provided that, for the avoidance of doubt, SNFX shall not be required to agree to any terms in such New License Agreement that impose any obligations on SNFX that are not in this Agreement. On a Sublicensee-by-Sublicensee basis, this CLOA will not be deemed to be terminated with respect

to any Products against the Sublicensee Targets for the purposes of the Sublicense Agreement (but, for clarity, MERSANA and its Affiliates shall not have any rights in respect of Products against such Sublicensee Targets under this CLOA following MERSANA's receipt of the Termination Notice, except as expressly provided in this CLOA (including Section 10.3(c))), until: (1) if Sublicensee does not exercise the Sublicensee Option during the Sublicensee Option Period, the expiration of the Sublicensee Option Period; or (2) if Sublicensee exercises the Sublicensee Option during the Sublicensee Option Period, the date when the New License Agreement is fully executed and is in full force and effect.

2.5. Manufacturing. Except as otherwise set forth in this Article 2, MERSANA shall, with the exception of activities under the Supply Agreement, be solely responsible for the cost and performance of Manufacturing and supplying, or having Manufactured and supplied, Products for Development, Commercialization and other Exploitation in the Territory. In this role, MERSANA shall have the right, in its sole discretion, to identify and manage CMOs (as defined below), as well as lead all supply chain management and quality control activities.

2.6. Supply Agreement. The Parties shall use Commercially Reasonable Efforts to negotiate and execute the Supply Agreement consistent with the terms set forth herein and in Schedule 3 attached hereto within sixty (60) days following the Effective Date. Pursuant to such Supply Agreement, SNFX will Manufacture and supply, or have Manufactured and supplied by one or multiple CMOs, for MERSANA batches of certain proprietary components of the Licensed Technology [**] for the Manufacture of Products (the "Materials"), in such quantities and at such times as reasonably requested by MERSANA for any pre-clinical activities and Phase 1 Trial of a Product and for use of the Materials in exercising the rights granted under Section 2.1(b). The Supply Agreement shall contain such additional terms that are reasonable and customary for similar supply agreements entered into by biopharmaceutical companies, including customary quality terms. If requested by MERSANA, the Parties shall use good faith efforts to enter into a mutually-agreeable quality agreement on customary terms. In the event that the Parties are not able to execute the Supply Agreement (and quality agreement, if applicable) by the date that is [**] days after the Effective Date, the Parties shall engage an independent expert mutually agreed upon by both Parties, the costs of which shall be equally shared by the Parties, and each Party shall submit to such expert, within [**] days of the selection of the expert, all applicable materials and information regarding the open areas of dispute in the Supply Agreement, and the expert shall provide its determination on such open areas within [**] days thereafter, which determination shall be binding on the Parties. The Parties acknowledge and agree that, as of the Amendment Date, the Parties have entered into a Supply Agreement which shall be deemed to have satisfied the terms of this Section 2.6 while such Supply Agreement is in effect.

2.7. Tech Transfer.

(a) MERSANA shall have the right, at any time after the Effective Date, to require SNFX to effect a transfer to MERSANA, or any Affiliate or CMO designated by MERSANA, of SNFX's Know-How relating to the then-current process for the Manufacture of the Materials or the bioconjugation and Manufacture of remodeled antibodies using the Licensed Technology (collectively, the "Manufacturing Processes") as is necessary and useful to enable MERSANA to implement the Manufacturing Processes at facilities designated by MERSANA (such transfer, the "Tech Transfer"). SNFX shall provide, and shall use Commercially Reasonable Efforts to cause its CMOs to provide (including by using Commercially Reasonable Efforts to negotiate contractual obligations for such CMOs to do so under agreements entered into following the Effective Date), the reasonable assistance requested by MERSANA to enable MERSANA (or its Affiliates or designated CMOs, as applicable) to implement the Manufacturing Processes at the facilities designated by MERSANA. If requested by MERSANA, such assistance shall include facilitating the entering into of agreements with

applicable CMOs relating to the Manufacture of the Materials and the bioconjugation and Manufacture of the remodeled antibodies using the Licensed Technology. Without limitation to the foregoing, in connection with each Tech Transfer:

(1) SNFX shall make available, and shall use Commercially Reasonable Efforts to cause its CMOs to make available (including by using Commercially Reasonable Efforts to negotiate contractual obligations for such CMOs to do so under agreements entered into following the Effective Date), to MERSANA (or its Affiliates or designated CMOs, as applicable) from time to time as MERSANA may reasonably request, all Manufacturing-related Know-How relating to the Manufacturing Processes, and all documentation constituting material support, performance advice, shop practice, standard operating procedures, specifications as to materials to be used and control methods, that are reasonably necessary or useful to enable MERSANA (or its Affiliates or designated CMOs, as applicable) to use and practice the Manufacturing Processes;

(2) SNFX shall cause all appropriate employees and representatives of SNFX and its Affiliates to meet with, and shall use Commercially Reasonable Efforts to cause all appropriate employees and representatives of its CMOs to meet with (including by using Commercially Reasonable Efforts to negotiate contractual obligations for such CMOs to do so under agreements entered into following the Effective Date), employees or representatives of MERSANA (or its Affiliates or designated CMOs, as applicable) at the applicable Manufacturing facility at mutually convenient times to assist with the working up and use of the Manufacturing Processes and with the training of MERSANA's personnel (or its Affiliates' or designated CMOs' personnel, as applicable) to the extent reasonably necessary or useful to enable MERSANA (or its Affiliates or designated CMOs, as applicable) to use and practice the Manufacturing Processes; and

(3) SNFX shall provide, and shall use Commercially Reasonable Efforts to cause its CMOs to provide (including by using Commercially Reasonable Efforts to negotiate contractual obligations for such CMOs to do so under agreements entered into following the Effective Date), such other assistance as MERSANA (or its Affiliates or designated CMOs, as applicable) may reasonably request to enable MERSANA (or its Affiliates or designated CMOs, as applicable) to use and practice the Manufacturing Processes and otherwise to Manufacture the Materials and to perform bioconjugation and Manufacture the remodeled antibodies using the Licensed Technology.

(b) MERSANA shall pay to CMOs all verifiable costs incurred directly as a result of performing the Tech Transfer and pay to SNFX all verifiable, out-of-pocket costs and labor [**] incurred directly as a result of performing the Tech Transfer. MERSANA shall make such payment within [**] days following SNFX or a CMO providing MERSANA with an invoice and reasonable supporting documentation (including receipts) therefor.

(c) Without limiting the foregoing, in the event that SNFX makes any modification, improvement, alteration or enhancement relating to the Manufacture of the Materials or the bioconjugation or Manufacture of the remodeled antibodies using the Licensed Technology after completion of the activities set forth under this Section 2.7, SNFX shall promptly disclose such Improvement to MERSANA, and shall, at MERSANA's request, perform technology transfer with respect to such Improvement in the same manner as provided in this Section 2.7.

(d) Access to Tech Transfer assistance and consultation shall be requested and coordinated through a single contact person to be designated by SNFX.

2.8. Contract Manufacturing.

(a) Where SNFX, at its discretion, for any activities under the Supply Agreement, outsources the manufacture of any Materials to Third Party manufacturing organization(s) ("CMOs"), SNFX shall ensure that all contracts for the manufacture of Materials with such CMOs comply with the terms and conditions of this CLOA and the Supply Agreement; provided, however, that SNFX's right to use any such CMO is subject to (i) the Manufacturing Process for the Material implemented by such CMO being consistent with the regulatory standards applicable to the conduct of pre-clinical studies and Phase 1 Trials and (ii) MERSANA's approval of such CMO after conducting a satisfactory audit, such approval not to be unreasonably withheld or delayed. For avoidance of doubt, a satisfactory audit includes an audit where all identified deficiencies have been resolved or otherwise accepted by MERSANA.

(b) For the activities conducted under 2.7(a), up to [**] and upon not less than [**] prior written notice, SNFX will permit MERSANA or its designee, and to the extent it has the right to do so, cause its CMOs to permit MERSANA or its designee, to inspect and audit the parts of its facility, or its CMOs' facility where the Manufacture of the Materials is carried out in order to assess SNFX's or its CMOs' compliance with the Supply Agreement (and any quality agreement), and to discuss any related technical issues with SNFX's or its CMOs' management personnel. SNFX shall, and shall direct its CMOs, to the extent it has the right to do so, to reasonably cooperate with each inspection by making all necessary information in SNFX's or its CMOs' possession available to MERSANA or its designee for a reasonable amount of time to permit MERSANA or its designee to conduct such inspection. All of the forgoing inspections and audits shall be at MERSANA's sole cost and expense. SNFX shall further provide MERSANA with copies of any audit findings of its CMOs promptly following the performance of an audit by SNFX of any CMO of SNFX; provided that, if required under the applicable agreement, SNFX shall use Commercially Reasonable Efforts to obtain such CMO's consent to provide such reports. In the event that any issues are identified in any audit by MERSANA or its designee, SNFX shall, within thirty (30) days after it receives notice of such identified issues, provide a written explanation thereof to MERSANA, including a corrective action plan that has been implemented to address such issues. SNFX shall take such actions as may be necessary to correct all identified issues in a timely manner and SNFX shall advise MERSANA periodically (and at such times as MERSANA may otherwise reasonably request) in writing of progress being made, as well as when such issues have been corrected. MERSANA shall not be liable for any costs or expenses incurred by SNFX to correct such deficiencies of SNFX's or its CMOs' Manufacturing Processes.

2.9. Target Substitution.

(a) In respect of the Licensed Targets for Option [**] (inclusive) [**], MERSANA shall have the right to substitute [**] of such Licensed Targets only, at any time prior to the earlier of (a) [**] such Licensed Target; or (b) [**] such Licensed Target ("Initial Target Substitution Right"), [**].

(1) If MERSANA is interested in exercising the Initial Target Substitution Right, it shall notify SNFX and the Agent thereof without disclosing the new Target (such new Target, a "Proposed Initial Target," and such notice, an "Initial Target Substitution Notice") and shall separately specify to Agent the Proposed Initial Target and the Licensed Target to be substituted. SNFX shall cause the Agent to notify MERSANA within [**] thereafter whether the Proposed Initial Target is an Unavailable Target or not.

(2) If the Proposed Initial Target is an Unavailable Target, the substitution right shall not be deemed to be exercised and Agent shall notify MERSANA thereof. In such case, MERSANA may thereafter exercise its Initial Target Substitution Right to substitute the same or different Licensed Target (as long as it is a Licensed Target for any of

Options [**] (inclusive)) with a different Proposed Initial Target in accordance with this Section 2.9(a), provided that the Initial Target Substitution Right has not expired.

(3) If the Proposed Initial Target is not an Unavailable Target, then MERSANA may exercise the Initial Target Substitution Right by providing written notice thereof to SNFX within [**] of receiving notice that the Proposed Initial Target is not an Unavailable Target, following which the substituted existing Licensed Target specified in Section 2.9(a)(1) shall cease to be a Licensed Target and shall become a Terminated Target (unless, for clarity, MERSANA subsequently exercises its Option right or Target substitution right with respect to such former Licensed Target and a different Option) and such Proposed Initial Target shall be deemed a Licensed Target hereunder. For clarity, during such [**] period, the Proposed Initial Target shall not be reserved for MERSANA and SNFX shall have no obligation to ensure that such Proposed Initial Target does not become an Unavailable Target during such [**] period.

(b) In respect of any Reserved Targets and Licensed Targets for Option [**] (inclusive) [**], MERSANA shall have the right, with respect to each such Option, to either (i) substitute the Reserved Target for such Option (if any) at any time during the Reservation Period for such Reserved Target, or (ii) substitute the Licensed Target for such Option (if any) at any time prior to the earlier of (a) [**] such Licensed Target; or (b) [**] such Licensed Target ("Additional Target Substitution Right"). For clarity, if MERSANA has already exercised its Additional Target Substitution Right with respect to the Reserved Target for an Option, MERSANA will no longer have an Additional Target Substitution Right with respect to the Licensed Target for the same Option.

(1) If MERSANA is interested in exercising the Additional Target Substitution Right, it shall notify SNFX and the Agent thereof without disclosing the new Target (such new Target, a "Proposed Additional Target," and such notice, an "Additional Target Substitution Notice") and shall separately specify to Agent the Proposed Additional Target and the Reserved Target or Licensed Target (as applicable) to be substituted. SNFX shall cause the Agent to notify MERSANA within [**] thereafter whether the Proposed Additional Target is an Unavailable Target or not.

(2) If the Proposed Additional Target is an Unavailable Target, the substitution right shall not be deemed to be exercised and Agent shall notify MERSANA thereof. In such case, MERSANA may thereafter exercise its Additional Target Substitution Right for such Option with a different Proposed Additional Target in accordance with this Section 2.9(b), provided that the Additional Target Substitution Right for such Option has not expired.

(3) If the Proposed Additional Target is not an Unavailable Target, then MERSANA may exercise the Additional Target Substitution Right for such Option by providing written notice thereof to SNFX within [**] of receiving notice that the Proposed Additional Target is not an Unavailable Target [**], following which the substituted existing Reserved Target or Licensed Target (as applicable) specified in Section 2.9(b)(1) shall cease to be a Reserved Target or Licensed Target (as applicable) and shall become a Terminated Target (unless, for clarity, MERSANA subsequently exercises its Target reservation right, Option right or Target substitution right with respect to such former Licensed Target and a different Option) and such Proposed Additional Target shall be deemed a Reserved Target or Licensed Target (as applicable) hereunder. For clarity, during such [**] period, the Proposed Additional Target shall not be reserved for MERSANA and SNFX shall have no obligation to ensure that such Proposed Additional Target does not become an Unavailable Target during such [**] period. In addition, such [**] period with respect to the substitution of a Reserved Target shall not extend the Option Term in respect of any applicable Option.

2.10. Agent. SNFX shall ensure that (a) an Agent (such Agent not to be a director, officer or employee of either Party or its Affiliates) has been appointed to perform the activities under this Agreement applicable to an Agent, at all times during the period starting from the Effective Date until the expiration of each Option Term and the expiration of MERSANA's right to substitute a Target in accordance with Section 2.9 (the "**Agent Term**"), and (b) at all times during the Agent Term, SNFX and such then-current Agent are parties to a three-way confidentiality agreement with MERSANA, which includes terms which prohibit the Agent from disclosing to SNFX any Targets in a Target Approval Request Notice, Initial Target Substitution Notice or Additional Target Substitution Notice from MERSANA, until and unless MERSANA has provided a Reservation Notice, Option Notice or a notice to exercise its Initial Target Substitution Right under Section 2.9(a) or to exercise its Additional Target Substitution Right under Section 2.9(b), as applicable, with respect to such Target.

2.11. No Other Rights. SNFX and MERSANA each acknowledges and agrees that, except as expressly granted under this CLOA, no right, title, or interest of any nature whatsoever is granted whether by implication, estoppel, reliance, or otherwise, by either Party to the other Party. All rights with respect to other Intellectual Property Rights that are not specifically granted herein are reserved.

2.12. Bankruptcy. All rights and licenses granted under or pursuant to this CLOA, including amendments hereto, are, and will otherwise be deemed to be, for purposes of Section 365(n) of 11 U.S.C. Section 101, et. seq. ("Bankruptcy Code"), licenses of rights to "intellectual property" as defined under Paragraph 101(35A) of the Bankruptcy Code, and any comparable Law of a relevant jurisdiction. The Parties agree that MERSANA shall retain and may fully exercise all of its rights and elections under applicable Law. The Parties further agree that, in the event of the commencement of bankruptcy proceeding by or against SNFX, MERSANA shall be entitled to a complete duplicate of (or complete access to, as appropriate) any Licensed Technology which at that date is known to be useful or necessary for the Development, Manufacture, Commercialization and other Exploitation of any Products against a Licensed Target throughout the Territory and all embodiments of such Licensed Technology; and the same, if not already in MERSANA's possession, will be promptly delivered to MERSANA (a) upon any such commencement of a bankruptcy proceeding, upon MERSANA's written request therefor (which request must identify the specific Licensed Technology), unless SNFX (or trustee on behalf of SNFX) elects within [**] days to continue to perform all of its obligations under this CLOA or (b) if not delivered under (a) above, upon rejection of this CLOA by or on behalf of SNFX, upon written request therefor by MERSANA.

ARTICLE 3
PAYMENTS

3.1. Initial Target License Issuance Fee. In partial consideration of the rights and licenses granted by SNFX hereunder, MERSANA shall pay to SNFX a one-time non-refundable and non-creditable license issuance fee for the license granted hereunder with respect to the Initial Target of Seven Hundred and Fifty Thousand U.S. Dollars (U.S. $750,000.00) (the "Initial Target License Fee") within [**] days after the Effective Date following receipt of a written invoice from SNFX.

3.2. Additional Target License Issuance Fee. In partial consideration of the rights and licenses granted by SNFX hereunder, MERSANA shall pay to SNFX on a Licensed Target-by-Licensed Target basis (other than with respect to the Initial Target) a one-time (for each Licensed Target) non-refundable and non-creditable license issuance fee of [**] (each license issuance fee for a Licensed Target, together with the Initial Target License Fee, a "License Fee") upon the issuance of each License for additional Target for which MERSANA exercises its Option rights under Section 2.2, except that no such License Fee shall be payable in respect of the Licensed

Targets for Option [**] (inclusive) if MERSANA exercises its Option rights under Section 2.2 in respect of such Targets. Each License Fee owed under this Section 3.2 shall be paid within [**] days after MERSANA provides SNFX with an Option Notice in accordance with Section 2.2(b)(5) following receipt of a written invoice from SNFX.

3.3. Amendment Fee. In partial consideration of the additional rights and licenses granted by SNFX as of the Amendment Date, MERSANA shall pay to SNFX a one-time non-refundable and non-creditable deal expansion fee of three million U.S. Dollars (U.S. $3,000,000.00) within [**] after the Amendment Date following receipt of a written invoice from SNFX.

3.4. Development Milestone Payments. In further consideration of the rights and licenses granted by SNFX hereunder, MERSANA shall pay to SNFX on a Licensed Target-by-Licensed Target basis the one-time (for each Licensed Target), non-refundable and non-creditable milestone payments set forth below (each, a "Development Milestone Payment") upon the first achievement by MERSANA or its Affiliates or Sublicensees of each of the corresponding events (each, a "Development Milestone Event"). MERSANA shall notify SNFX pursuant to Section 11.10 within [**] days after achievement of the applicable Development Milestone Event and shall pay the corresponding Development Milestone Payment within [**] days after receipt of SNFX's invoice therefor. For clarity, each Development Milestone Payment set forth below shall be due and payable one time only for each Licensed Target (regardless of the number of Products or indications to achieve any such Development Milestone Event for such Licensed Target) and the Development Milestone Payment amount is determined as shown in the table based upon the Development Milestone Event and the date on which the License Fee was paid for such Licensed Target.

Development Milestone Number	**Development Milestone Event**	**Development Milestone Payment** **If License Fee for the Licensed Target Paid On or Before [**]**	**Development Milestone Payment** **If License Fee for the Licensed Target Paid On or After [**] but on or before [**]**	**Development Milestone Payment** **If License Fee for the Licensed Target Paid On or After [**]**
1.	First dosing of a patient in the first Phase 1 Trial of a Product against the applicable Licensed Target.	$750,000	[**]	[**]
2.	[**]	[**]	[**]	[**]
3.	[**]	[**]	[**]	[**]
4.	[**]	[**]	[**]	[**]
5.	[**]	[**]	[**]	[**]

In addition, upon the [**], MERSANA shall pay to SNFX a one-time, non-refundable and non-creditable Development Milestone Payment of [**] dollars ($[**]). MERSANA shall notify SNFX pursuant to Section 11.10 within [**] after achievement of such event [**] and shall pay such corresponding Development Milestone Payment within [**] after receipt of SNFX's invoice therefor.

The Parties understand and agree that, if MERSANA or its Affiliates or Sublicensees is able to accelerate the Development of a Product such that one or more Clinical Trials that would have represented a Development Milestone Event (as defined immediately above) can be omitted, the corresponding omitted clinical-stage Development Milestone Payment(s) shall still be paid in full by MERSANA to SNFX at the time that the next payable Development Milestone Payment is paid.

Notwithstanding the foregoing, the Development Milestone Payment amounts set forth in this Section 3.3 for any Licensed Target for which the corresponding License Fee was paid on or before [**] will be reduced by [**], but only for such Licensed Target.

3.5. Sales Milestone Payments. In further consideration of the rights and licenses granted by SNFX hereunder, MERSANA shall pay to SNFX on a Licensed Target-by-Licensed Target basis the one-time (for each Licensed Target), non-refundable and non-creditable milestone payments set forth below (each, a "Sales Milestone Payment") upon the first achievement by MERSANA or its Affiliates or Sublicensees of each of the corresponding events (each, a "Sales Milestone Event"). MERSANA shall notify SNFX pursuant to Section 11.10 within [**] days after achievement of the applicable Sales Milestone Event and shall pay the corresponding Sales Milestone Payment within [**] days after receipt of SNFX's invoice therefor. For clarity, each Sales Milestone Payment set forth below shall be due and payable one time only for each Licensed Target (regardless of the number of Products or indications to achieve any such Sales Milestone Event for each such Licensed Target). All such notices issued from MERSANA to SNFX hereunder shall be accompanied by a written statement setting forth in reasonable detail the calculation thereof.

Sales Milestone Event	Sales Milestone Payment (Initial Target and Licensed Targets for Option [**] (inclusive))	Sales Milestone Payment (Licensed Targets for Option [**] (inclusive))
[**]	[**]	[**]
[**]	[**]	[**]
[**]	[**]	[**]
[**]	[**]	[**]
[**]	[**]	[**]
[**]	[**]	[**]

3.6. Payment of Royalties.

(a) Royalty Rate. In further consideration of the rights and licenses granted by SNFX hereunder, during the Royalty Term, MERSANA shall pay to SNFX on a Licensed Target-by-Licensed Target basis, the following royalties:

(1) in respect of the Initial Target and each of the Licensed Targets for Option [**] (inclusive), if any:

(i) [**] of Net Sales in a Calendar Year in the Territory of Products against such Licensed Target sold by MERSANA, its Affiliates and Sublicensees for that portion of such Net Sales less than [**]; and

(ii) [**] of Net Sales in a Calendar Year in the Territory of Products against such Licensed Target sold by MERSANA, its Affiliates and Sublicensees for that portion of such Net Sales greater than or equal to [**] and less than [**]; and

(iii) [**] of Net Sales in a Calendar Year in the Territory of Products against such Licensed Target sold by MERSANA, its Affiliates and Sublicensees for that portion of such Net Sales greater than or equal to [**].

(2) in respect of each of the Licensed Targets for Option [**] (inclusive), if any:

(i) [**] of Net Sales in a Calendar Year in the Territory of Products against such Licensed Target sold by MERSANA, its Affiliates and Sublicensees for that portion of such Net Sales less than [**];

(ii) [**] of Net Sales in a Calendar Year in the Territory of Products against such Licensed Target sold by MERSANA, its Affiliates and Sublicensees for that portion of such Net Sales greater than or equal to [**];

(iii) [**] of Net Sales in a Calendar Year in the Territory of Products against such Licensed Target sold by MERSANA, its Affiliates and Sublicensees for that portion of such Net Sales greater than or equal to [**] and less than [**];

(iv) [**] of Net Sales in a Calendar Year in the Territory of Products against such Licensed Target sold by MERSANA, its Affiliates and Sublicensees for that portion of such Net Sales greater than or equal to [**] and less than [**]; and

(v) [**] of Net Sales in a Calendar Year in the Territory of Products against such Licensed Target sold by MERSANA, its Affiliates and Sublicensees for that portion of such Net Sales greater than or equal to [**].

(b) Payment of Royalties. MERSANA shall: (a) within [**] days following the end of each Calendar Quarter in which a royalty payment accrues, provide to SNFX a report, on a Licensed Target-by-Licensed Target basis, for each country in the Territory in which sales of Product occurred in the Calendar Quarter covered by such statement, specifying for such Calendar Quarter: the number of Products sold; the gross sales and Net Sales; the royalties payable, including an accounting of itemized deductions taken in the calculation of Net Sales in accordance with MERSANA's normal practices used to prepare its audited financial statements for internal and external reporting purposes and in accordance with GAAP; the applicable exchange rate to convert foreign currency to U.S. Dollars under Section 3.8; and the royalty calculation and royalties payable in U.S. Dollars, and (b) make the royalty payments owed to

SNFX hereunder in accordance with such royalty report in arrears, within [**] days from the end of each Calendar Quarter in which such payment accrues.

(c) Royalty Term. Notwithstanding anything to the contrary, the royalties under this Section 3.6 shall be payable by MERSANA with respect to each Product on a country-by-country basis in the Territory solely during the Royalty Term.

(d) Third Party Payments on Products. MERSANA shall be responsible for paying any amounts due to Third Parties under any agreement between MERSANA and such Third Party in connection with the Development, Manufacture or Commercialization of Product throughout the Territory.

3.7. Payment Method. All payments made by MERSANA under this CLOA shall be made in U.S. Dollars, and such payments shall be made by check or wire transfer to:

[**]

Notwithstanding the foregoing, SNFX may designate another bank account in writing; provided that such other account information is provided to MERSANA at least thirty (30) days prior to any such payment becoming due hereunder.

3.8. Currency Conversion. In the event that Products are sold in any country in the Territory in currencies other than U.S. Dollars, Net Sales shall be calculated by MERSANA in accordance with U.S. generally accepted accounting principles, consistently applied. Net Sales in currencies other than U.S. Dollars shall be converted into U.S. Dollars using MERSANA's standard conversion methodology for its own financial reporting.

3.9. Late Payment Interest. Any payment due and payable to SNFX under the terms and conditions of this CLOA, including any royalty payment, made by MERSANA after the date such payment is due and payable shall bear interest as of the day after the date such payment was due and payable and shall continue to accrue such interest until such payment is made at a rate equal to the lesser of either (a) [**] above the prime rate as reported by Citibank, New York, New York, as of the date such payment was due and payable, or (b) the maximum rate permitted by applicable Law.

3.10. Records. On a Product-by-Product basis, following the First Commercial Sale of such Product and thereafter during the Term, MERSANA shall maintain, and shall cause its Affiliates and Sublicensees to maintain, complete and accurate records sufficient to enable accurate calculation of royalties and other payments due SNFX hereunder. Such records and books of account shall be preserved by MERSANA for a period of [**] years after the end of the period covered by such records and books of account, which obligation shall survive termination of this CLOA. MERSANA must direct its Affiliates and Sublicensees to provide reports and keep records in a manner consistent with this Section 3.10. MERSANA shall provide reports received from any Affiliates and Sublicensees to SNFX with its applicable payments hereunder.

3.11. Taxes. MERSANA may withhold from any payment made to SNFX under this CLOA any tax liability of SNFX required to be withheld by MERSANA under the Laws of the United States or any other country or jurisdiction where MERSANA has Commercialized Products. If any tax is required by Law to be withheld by MERSANA, MERSANA shall provide SNFX receipts or other evidence of such withholding and payment to the appropriate tax authorities on a timely basis following such tax payment. Each Party agrees to cooperate with the other Party in claiming refunds or exemptions from such deductions or withholdings under any relevant agreement or treaty which is in effect. The Parties shall discuss applicable mechanisms for

minimizing such taxes to the extent possible in compliance with applicable Law. In addition, the Parties shall cooperate in accordance with applicable Law to minimize indirect taxes (such as value added tax, sales tax, consumption tax and other similar taxes) in connection with this CLOA, provided that MERSANA shall be responsible for the payment of all such indirect taxes associated with the Manufacture and Commercialization of Product and shall not deduct any such indirect tax amounts from the payments due SNFX under this CLOA.

3.12. Audit Rights. On a Product-by-Product basis, following the First Commercial Sale of such Product, MERSANA shall permit an independent certified public accountant of internationally recognized standing designated by SNFX and reasonably acceptable to MERSANA, to have access, no more than [**] during the Term and no more than [**] following the termination of this CLOA, during regular business hours and upon at least [**] days written notice, to MERSANA's records and books to the extent necessary to determine the accuracy of Net Sales reported, and payments made, by MERSANA to SNFX within the [**] period immediately preceding such an audit. The independent public accountant shall disclose to SNFX only (a) the accuracy of Net Sales reported and the basis for royalty and other payments made to SNFX under this CLOA and (b) the difference, if any, such reported and paid amounts vary from amounts determined as a result of the audit. If such examination results in a determination that Net Sales or payments have been misstated, over or under paid amounts due shall be paid promptly to the appropriate Party. If Net Sales are understated by greater than [**], the fees and expenses of such accountant shall be paid by MERSANA; otherwise the fees and expenses of such accountant shall be paid by SNFX. All matters reviewed by such independent public accountant shall be deemed Confidential Information of MERSANA subject to Article 6.

ARTICLE 4
PRODUCT ACTIVITIES

4.1. Diligence.

(a) MERSANA, directly or through one or more of its Affiliates or Sublicensees, will use Commercially Reasonable Efforts to Develop, Manufacture, Commercialize, and otherwise Exploit at least one Product against each Licensed Target in each Major Market Country.

(b) In addition to the obligation under Section 4.1(a), MERSANA shall file an IND with the FDA for one (1) Product within [**] of the Effective Date. In the event that MERSANA does not file an IND with the FDA for one (1) Product within such [**] period, then, if this CLOA has not been terminated prior to such date, MERSANA shall pay [**] to SNFX as SNFX's sole remedy for MERSANA's failure to so file such an IND. For the avoidance of doubt, MERSANA's obligations under this Section 4.1(b) shall have been fully satisfied and shall not apply to any other Product upon MERSANA either filing an IND with the FDA for one (1) Product within [**] of the Effective Date or paying [**] to SNFX as set forth in this clause (b).

4.2. Annual Reports. No later than January 31 of each year commencing on the Effective Date and ending, on a Product-by-Product basis, at the end of the applicable Royalty Term, MERSANA shall submit a written report to SNFX covering the preceding Calendar Year. Each report will summarize MERSANA's, its Affiliates' and Sublicensees' significant activities related to the Development and Commercialization of at least one Product against each Licensed Target and the status of Clinical Trials and applications for Regulatory Approval necessary for Exploiting such Products. Such reports will be deemed MERSANA's Confidential Information in accordance with Article 6.

4.3. Responsibilities. Except as otherwise set forth in this CLOA, MERSANA shall be solely responsible for the Development, Manufacturing, Commercialization and Exploitation of all Products in the Field in the Territory. MERSANA shall bear [**] of all costs and expenses associated with the Development, Manufacturing, Commercialization and Exploitation of Products.

4.4. Regulatory Matters.

(a) As between the Parties, MERSANA will (i) be solely responsible for, and will solely own, all applications for Regulatory Approval and Pricing Approval with respect to a Product and (ii) have the sole right and responsibility to file all INDs and make all other filings with the Regulatory Authorities, and to otherwise seek all Regulatory Approvals and Pricing Approvals for the Products, in the Territory, as well as to conduct all correspondence and communications with Regulatory Authorities regarding such matters. Upon the Effective Date with respect to the Initial Target, and upon MERSANA exercising its Option right for a Licensed Target (other than the Initial Target) in accordance with Section 2.2(c) during the Term and thereafter as provided in Section 10.3(a)(2), SNFX, on behalf of itself and its Affiliates, shall grant and does hereby grant to MERSANA and its Affiliates a non-exclusive, transferable in accordance with Section 11.5, "Right of Reference," as that term is defined in 21 C.F.R. § 314.3(b) and any foreign counterpart of such regulation, with the right to grant such a Right of Reference to Sublicensees hereunder (through multiple tiers), to and under all data contained in any Regulatory Documentation Controlled by SNFX that is necessary or useful to Develop, Manufacture, Commercialize or otherwise Exploit a Product in the Field in the Territory, and SNFX shall provide a signed statement to this effect, if requested by MERSANA, in accordance with 21 C.F.R. § 314.50(g)(3) (or any analogous applicable Law recognized outside of the United States).

(b) SNFX shall provide MERSANA with reasonable cooperation and assistance in connection with regulatory activities for each Product at MERSANA's sole cost and expense, including (i) reasonable assistance in preparing filings and submissions necessary to obtain and maintain Regulatory Approval and Pricing Approval (if applicable) for each Product, (ii) responding to reasonable requests by MERSANA for additional Regulatory Documentation (and information and clinical data contained therein) related to such Product, and (iii) providing other technical information in SNFX's Control that is necessary or useful for MERSANA in connection with any application for Regulatory Approval or Pricing Approval for a Product; provided that SNFX's cooperation is subject to MERSANA's reimbursement of any reasonable out-of-pocket costs incurred by SNFX and [**]. Further, such access shall be requested and coordinated through a single contact person to be designated by SNFX.

(c) MERSANA shall be responsible for ensuring, at its sole expense, that the Development, Manufacturing, Commercialization and other Exploitation of all Products in the applicable jurisdiction within the Territory are in compliance with applicable Laws in all material respects, including all rules and regulations promulgated by applicable Regulatory Authorities. Specifically and without limiting the foregoing, MERSANA shall be responsible for filing all compliance filings, certificates and safety reporting for the Products required by applicable Law at its sole expense in the Territory.

(d) MERSANA shall be responsible for taking all actions related to adverse event reporting and other regulatory obligations that are legally required of the holder of a Regulatory Approval application, license, registration or authorization under applicable Law.

ARTICLE 5
INTELLECTUAL PROPERTY

5.1. Ownership of Remodeled Antibodies. The Parties acknowledge and agree that MERSANA is and will be the sole and exclusive owner of all right, title and interest in and to any Intellectual Property Rights to the extent related to any remodeled antibody against a Licensed Target for which the License Fee has been paid, and that are conceived, generated, Developed or reduced to practice under this CLOA or the Supply Agreement that is derived from an antibody Controlled by MERSANA. For the avoidance of doubt, MERSANA will be the sole and exclusive owner of all right, title and interest in and to any Intellectual Property Rights related to any Products conceived, generated, Developed or reduced to practice under this CLOA or the Supply Agreement that are derived from a remodeled antibody against a Licensed Target for which the License Fee has been paid, whether or not MERSANA Controls the intellectual property related to the antibody included in any such Product. Further, for the avoidance of doubt, SNFX will be the sole and exclusive owner of all right, title and interest in and to any Licensed Technology used, or any Improvements to the Licensed Technology that are not specific to a remodeled antibody against a Licensed Target for which the License Fee has been paid.

5.2. Improvements.

(a) Subject to Section 5.2(c), any Improvements to the Licensed Technology conceived, generated, Developed or reduced to practice solely by or on behalf of either Party or jointly by or on behalf of both Parties shall be exclusively owned by SNFX or its designee; provided that, with respect to any Improvements to the Licensed Technology conceived, generated, developed or reduced to practice by or on behalf of MERSANA individually or jointly with SNFX, such Improvements shall only be owned by SNFX or its designee pursuant to this Section 5.2(a) to the extent that the applicable Licensed Technology has been disclosed to MERSANA, or, in the case of Patents and Patent applications, that have been published. Subject to the preceding sentence, MERSANA shall assign, and does hereby assign to SNFX or its designee, all of MERSANA's right, title and interest in and to any such Improvements to the Licensed Technology including all Intellectual Property Rights therein.

(b) Subject to Section 5.2(c), any Improvements to the MERSANA Technology conceived, generated, Developed or reduced to practice solely by or on behalf of either Party or jointly by or on behalf of both Parties shall be exclusively owned by MERSANA or its designee; provided that, with respect to any Improvements to the MERSANA Technology conceived, generated, developed or reduced to practice by or on behalf of SNFX individually or jointly with MERSANA, such Improvements shall only be owned by MERSANA or its designee pursuant to this Section 5.2(b) to the extent that the applicable MERSANA Technology has been disclosed to SNFX or, in the case of Patents and Patent application, that have been published. Subject to the preceding sentence, SNFX shall assign, and does hereby assign to MERSANA or its designee, all of SNFX's right, title and interest in and to any such Improvements to the MERSANA Technology including all Intellectual Property Rights therein.

(c) Any Improvement that is an Improvement to both the Licensed Technology and the MERSANA Technology conceived, generated, developed or reduced to practice solely by or on behalf of either Party or jointly by or on behalf of both Parties in the course or performing or exercising rights under this CLOA or the Supply Agreement (each, a "Joint Improvement") shall be jointly owned by SNFX and MERSANA or their respective designee (other than any Improvements that are specific to the remodeled antibodies, which shall be solely owned by MERSANA pursuant to Section 5.1), and each of SNFX and MERSANA or their respective designee shall have, and does hereby have an undivided joint ownership interest in all rights, title, and interest worldwide in and to such Joint Improvement and all Intellectual Property Rights therein, effective immediately upon the conception or reduction to practice thereof. In accordance with the foregoing, SNFX hereby assigns an undivided joint ownership interest in and to such Joint Improvement to MERSANA, and MERSANA hereby assigns an

undivided joint ownership interest in and to such Joint Improvement to SNFX. Each Party shall have the right to practice, license and sublicense (through multiple tiers), or otherwise Exploit any Joint Improvement without the consent of or accounting to the other Party. In the event that any Joint Improvement is conceived, generated, developed or reduced to practice hereunder, the Parties shall promptly meet to discuss and determine whether to seek Patent protection thereon. If the Parties decide to seek Patent protection for any Joint Improvement, the Parties will mutually agree on the preparation, filing, prosecution and maintenance of any Joint Improvement Patent using Patent counsel that is reasonably acceptable to both Parties. The Parties shall timely discuss in good faith an enforcement strategy (including the allocation of costs) with respect to any Joint Improvement Patent and the allocation between the Parties of responsibility for enforcement of Joint Improvement Patents.

5.3. Other Intellectual Property. Except as set forth above in this Article 5, all other Intellectual Property Rights invented, conceived, generated, developed or reduced to practice solely by or on behalf of either Party or jointly by or on behalf of both Parties in the course or performing or exercising rights under this CLOA or the Supply Agreement will be owned by the Party that invented, conceived, generated, developed or reduced to practice such Intellectual Property Rights, the determination of which will be made in accordance with applicable Law in the United States.

5.4. Patent Maintenance and Prosecution. SNFX shall, at its sole expense and within its sole discretion, prepare, file, prosecute and maintain the Licensed Patents and be responsible for any related interference, re-issuance, re-examination and other opposition proceedings; provided that SNFX shall provide MERSANA with drafts of any filings that use MERSANA's data prior to their submission in sufficient time to allow MERSANA the reasonable opportunity to review, consider and substantively comment thereon. SNFX may abandon any Licensed Patent or Licensed Patent claims in SNFX's sole discretion.

5.5. Patent Term Extensions. SNFX shall have the sole right, but not the obligation, to seek, in SNFX's name, patent term extensions, adjustments, restorations, or supplementary protection certificates under applicable Law for the Licensed Patents in the Territory; it being understood and agreed that, if SNFX seeks a patent term extension, then MERSANA agrees to perform, at SNFX's request and sole expense, any reasonable measures required by applicable Law for SNFX to obtain such extension. SNFX, its agents and attorneys will give due consideration to all suggestions and comments of MERSANA regarding any such activities, including the choice of which Licensed Patent to apply term extensions to, but in the event of a disagreement between the Parties, SNFX shall have the final decision making authority. For clarity, (a) any such extended Licensed Patent will remain included in the definition of Valid Claim for purposes of extending the Term and (b) SNFX shall have the right, in its sole discretion, to abandon such Licensed Patent at any time.

5.6. Licensed Patents and Licensed Know-How Enforcement and Defense. If either Party becomes aware of an infringement by a Third Party of any Licensed Technology in the Territory, whether or not within the Field or with respect to a Licensed Target, it shall notify the other Party as soon as practicable. Upon notice of an infringement by a Third Party of any Licensed Technology, SNFX shall have the sole right (but not the obligation) at its sole cost to take the appropriate steps to enforce or defend any Licensed Patents in the Field against Third Parties. Any settlements, damages or other monetary awards relating to such infringement or violation by a Third Party of any Licensed Patent recovered by SNFX pursuant to a suit, action or proceeding brought pursuant to this Section 5.6 will be retained by SNFX.

5.7. Defense of Infringement Claims of Licensed Technology. Subject to Section 8.1, in the event that a Third Party institutes a claim against a Party in the Territory during the Term, alleging that the Development, Manufacture, Commercialization or Exploitation of the Products

in the Territory in accordance with this CLOA infringes or misappropriates the Intellectual Property Rights of such Third Party, then such Party shall immediately provide the other Party with written notice of such claim along with the related facts in reasonable detail. MERSANA shall have the first right, but not the obligation, at its sole cost and expense, and through counsel of its choosing, to assume direction and control of the defense and settlement of any such claim brought against MERSANA, or, subject to any Third Party obligations, any such claim brought against SNFX; provided that it shall not: (a) settle or otherwise compromise any such claims brought against SNFX that would materially adversely affect SNFX; or (b) assert a claim or counterclaim against such Third Party based on the Licensed Technology, without the written consent of SNFX, such consent not to be unreasonably withheld or delayed. Without limiting the foregoing, MERSANA shall not settle any such claims brought against SNFX unless such settlement involves only the payment of money and includes a complete and unconditional release of SNFX from all liability with respect thereto. SNFX shall assist and cooperate in connection with the defense of such claim upon MERSANA's reasonable request and at the sole cost and expense of MERSANA.

5.8. Cooperation. In any suit, proceeding or dispute involving the infringement of any of the Licensed Patents in the Field or misappropriation of any of the Licensed Know-How in the Field, the Parties shall provide each other with reasonable cooperation, and, upon the request and at the expense of the Party bringing suit, the other Party shall make available to the Party bringing suit, at reasonable times and under appropriate conditions, all reasonable and relevant personnel, records, papers, information, samples, specimens, and the like in its possession. Notwithstanding any other provision of this Article 5, neither Party shall make any settlements of any suit, proceeding or action relating to an infringement of the Licensed Patents in the Field or misappropriation of any of the Licensed Know-How in the Field that would materially adversely affect the other Party or materially adversely affect the rights and licenses granted hereunder without first obtaining such other Party's prior written consent, such consent not to be unreasonably withheld or delayed.

ARTICLE 6
CONFIDENTIALITY

6.1. Confidentiality Obligations. Each Party agrees that, during the Term and for [**] years thereafter, all Confidential Information of the other Party shall be maintained in confidence, and shall not be used for any purpose other than the purposes expressly permitted by this CLOA, and, subject to Section 6.2, shall not be disclosed to any Third Party. The Mutual Non-Disclosure Agreement shall terminate as of the Effective Date and the provisions of this Article 6 and this CLOA shall supersede the Mutual Non-Disclosure Agreement in all respects, and all "Confidential Information" (as defined in the Mutual Non-Disclosure Agreement) exchanged by the Parties thereunder shall be deemed to be Confidential Information hereunder and be subject only to the provisions of this Article 6 and CLOA as of and after the Effective Date. The foregoing obligations will not apply to any portion of Confidential Information to the extent that it can be established by competent proof that such portion of the Confidential Information:

(a) was already known to the recipient or its Representatives, other than under an obligation of confidentiality, at the time of disclosure;

(b) was generally available to the public or was otherwise part of the public domain at the time of its disclosure to the recipient or its Representatives;

(c) became generally available to the public or otherwise becomes part of the public domain after its disclosure and other than through any act or omission of the recipient in breach of this CLOA; or

(d) was subsequently lawfully disclosed to the recipient or its Representatives by a Third Party other than in contravention of a confidentiality obligation of such Third Party to the disclosing party.

6.2. Permitted Usage. Each Party may use and disclose the Confidential Information of the other Party, in accordance with this CLOA, as follows: (a) to its Representatives who have a need to know such Confidential Information to perform such Party's obligations under this CLOA and who are bound by obligations of confidentiality no less strict than those contained in this CLOA (other than the term of such confidentiality obligations, which shall be customary for the applicable situation), (b) to exercise rights granted to or retained by such Party; (c) in connection with the Prosecution or enforcement of Licensed Patents or Improvements, in accordance with this CLOA; or (d) in connection with prosecuting or defending litigation, complying with applicable governmental regulations, filing for, obtaining and maintaining Regulatory Approvals and Pricing Approvals, or as otherwise required by Law, but provided that if a Party is required by Law to make any disclosure of the other Party's Confidential Information, it will give reasonable advance notice to the other Party of such disclosure requirement (if legally permitted), it will disclose only for the sole purpose of and solely to the extent required by such Law, and it will use its reasonable efforts to secure confidential treatment of such portion of the Confidential Information required to be disclosed.

6.3. Terms of Agreement. The terms of this CLOA shall be the Confidential Information of both Parties, and subject to the terms of this Article 6. Notwithstanding the foregoing, either Party may make a disclosure of the terms of this CLOA: (a) to any bona fide financial advisors, accountants, investors, potential acquirers, or, in the case of MERSANA, potential sublicensees who have undertaken substantive negotiation of a Sublicense Agreement with MERSANA in good faith and are bound in writing to maintain the confidentiality of such disclosure to the same extent required of the Parties hereunder, (b) if required by applicable Law, or (c) as otherwise permitted pursuant to Section 6.5. A Party will give the other Party written notice of any required disclosure under (b) above (if legally permitted), which notice shall, to the extent reasonably practicable, be given a reasonable period of time in advance of such required disclosure. In the event either Party is required to file this CLOA with the U.S. Securities and Exchange Commission or any comparable non-U.S. Governmental Entity, such Party shall apply for confidential treatment of this CLOA to the fullest extent permitted by applicable Law, shall provide the other Party a copy of the confidential treatment request a reasonable enough time in advance of its filing to attempt to give the other Party a meaningful opportunity to comment thereon, and shall incorporate in such confidential treatment request any reasonable comments of the other Party (if reasonably practicable).

6.4. Permitted Publications.

(a) In the event MERSANA desires to publish or present any information with respect to the Licensed Technology, MERSANA shall provide SNFX with a copy of such proposed publication or presentation no less than twenty (20) days prior to its intended submission for publication or public disclosure. SNFX shall respond in writing promptly and in no event later than ten (10) days after receipt of the proposed material, with one or more of the following: (a) comments on the proposed material, which MERSANA shall consider in good faith; (b) a specific statement of concern, based upon the need to seek Patent protection or to block publication or public disclosure if SNFX reasonably determines that the proposed disclosure includes intellectual property that should be maintained as a trade secret to protect any Licensed Technology, in which event MERSANA agrees not to submit such publication or make such presentation that contains such information for at least forty-five (45) days in order for SNFX to have the opportunity to seek Patent protection for any material in such publication or presentation which it believes is patentable; (c) an identification of SNFX's Confidential Information that is contained in the material reviewed, which MERSANA shall remove, if

requested by SNFX; or (d) an identification of any SNFX trade secret that is contained in the material reviewed and which SNFX desires to maintain as a trade secret, which MERSANA shall remove, if requested by SNFX.

(b) The contents of any publication or presentation that has been reviewed and approved by SNFX may be re-released by MERSANA without a requirement for re-approval.

(c) SNFX shall be expressly prohibited from publishing or presenting any information with respect to the MERSANA Technology or any Product without MERSANA's prior written consent, which may be withheld in its sole discretion.

6.5. Public Announcements. The Parties agree that the press release attached hereto as Exhibit F regarding the existence of this CLOA will be issued upon execution of this CLOA on the Effective Date. The Parties further agree that the press release attached hereto as Exhibit G regarding the amendment and expansion of this CLOA will be issued by SNFX within [**] of the Amendment Date. Additional public announcements or press releases regarding this CLOA may be issued by either Party at any other time pending approval of the public announcement or press release content by both Parties, such approval not to be unreasonably withheld. Neither Party shall make any subsequent public announcement concerning this CLOA or the terms hereof not previously made public without the prior written approval of the other Party, such consent not to be unreasonably withheld or delayed by such other Party, with regard to the form, content, and precise timing of such announcement.

ARTICLE 7
REPRESENTATIONS, WARRANTIES AND COVENANTS

7.1. General. Each Party represents and warrants, and covenants (as applicable), to the other Party, that:

(a) as of the Effective Date and the Amendment Date, it is duly organized, validly existing and in good standing under the Laws of its jurisdiction of incorporation or organization and has all requisite power and authority to conduct its business and engage in the transactions provided for in this CLOA;

(b) as of the Effective Date and the Amendment Date, the execution, delivery and performance by it of this CLOA, and the consummation by it of the transactions contemplated hereby, have been duly authorized and approved by all necessary corporate or equivalent action on its part. This CLOA has been duly executed and delivered by it and constitutes its legal, valid and binding obligation, enforceable against it in accordance with its terms, except as enforceability may be limited by applicable bankruptcy, insolvency or other laws relating to or affecting creditors' rights generally;

(c) as of the Effective Date and the Amendment Date, the execution, delivery and performance by it of this CLOA, and the consummation by it of the transactions contemplated hereby, do not and will not: (i) violate any applicable Laws; (ii) conflict with, or result in the breach of any provision of, its certificate or articles of incorporation, bylaws or equivalent organizational documents; (iii) result in the creation of any lien or encumbrance of any nature upon any property being transferred or licensed by it pursuant to this CLOA; or (iv) violate, conflict with, result in the breach or termination of, or constitute a default under (or event which, with notice, lapse of time or both, would constitute a default under), any permit, contract, agreement or other obligation or restriction to which it is a party or by which any of its properties or businesses are bound;

(d) as of the Effective Date and the Amendment Date, no authorization, consent or approval of, or notice to or filing with, any Regulatory Authority is required for the execution, delivery and performance by it of this CLOA (excluding approvals of Regulatory Authorities as contemplated herein);

(e) where this CLOA refers to an action or obligation to be undertaken by a Party's Affiliates, such Party will cause such Affiliates, during the Term, to undertake such obligations or other actions, and such Party will be responsible and liable for any acts or omissions by its Affiliates;

(f) it shall not use, during the Term, any employee or consultant who has been debarred by any Regulatory Authority, or, to the best of such Party's Knowledge, is the subject of debarment proceedings by a Regulatory Authority; and

(g) it will maintain throughout the Term all permits, licenses, registrations, and other forms of authorizations and approvals from any Governmental Entity that are necessary or required to be obtained or maintained by such Party in order for such Party to execute and deliver this CLOA and to perform its obligations hereunder in a manner which complies with all applicable Laws.

7.2. Covenants of MERSANA. MERSANA hereby covenants that, during the Term, it shall, and shall direct its Affiliates and Sublicensees to, perform all of its obligations under this CLOA, and shall comply in all material respects with all applicable Laws in the Development, Manufacture and Commercialization of the Product.

7.3. Representations of MERSANA. On a Licensed Target-by-Licensed Target basis, MERSANA hereby represents and warrants to SNFX that, to its Knowledge, as of the date that the License with respect to a Licensed Target is granted, the Antibody or Antibodies that MERSANA intends to incorporate, as of such date, into each Product against such Licensed Target [**].

7.4. Representations of SNFX. SNFX hereby represents and warrants to MERSANA, as of the Effective Date and the Amendment Date, and, except as stated otherwise, on each separate date that MERSANA receives a license to a Licensed Target pursuant to Section 2.2(c), except as may be set forth in a disclosure schedule delivered by SNFX to MERSANA on each such date, that:

(a) SNFX or its Affiliates are the sole and exclusive owner(s) of the Licensed Technology, all of which is, except for [**], free and clear of any liens, charges or encumbrances, and, except for any Patents disclosed by SNFX to MERSANA in writing prior to each such date, to SNFX's Knowledge, neither SNFX nor any of its Affiliates have infringed any Patents or misappropriated any Know-How of a Third Party in connection with Developing the Licensed Technology.

(b) Except for any Patents disclosed by SNFX to MERSANA in writing prior to each such date, to SNFX's Knowledge, the practice of the Licensed Technology in the manner contemplated by this CLOA and disclosed by MERSANA to SNFX as of the Effective Date does not infringe any Patents or misappropriate any Know-How of a Third Party;

(c) SNFX or its Affiliates have complied in all material respects with all applicable Laws with respect to the filing, prosecution and maintenance of the Licensed Patents, paid all maintenance and annuity fees with respect to the Licensed Patents, and no dispute regarding inventorship has been alleged or threatened with respect to the Licensed Patents;

(d) Except for the pending oppositions filed against [**], there are no actual, pending or, to SNFX's Knowledge, alleged or threatened, adverse actions, suits, claims, interferences, re-examinations, oppositions, inventorship challenges or formal governmental investigations involving the Licensed Technology by or against SNFX or any of its Affiliates, in each case that are in or before any Governmental Entity;

(e) Schedule 1 includes a complete and correct list of the Licensed Patents, as of the Effective Date, necessary or useful for MERSANA to Develop, Manufacture, Commercialize or otherwise Exploit Products as contemplated herein;

(f) SNFX or its Affiliates have and will have the full right, power and authority to grant all of the right, title and interest in the licenses and other rights granted or to be granted to MERSANA, its Affiliates or Sublicensees under this CLOA; and

(g) the execution, delivery and performance by SNFX of this CLOA and its compliance with the terms and provisions hereof does not and will not violate or result in a breach of or default under any binding obligation or agreement of SNFX existing as of the Effective Date.

7.5. Covenants of SNFX.

(a) SNFX covenants that it will not, during the Term, undertake any obligation, or grant any right, license, interest or lien, that conflicts with its obligations, or the rights and licenses granted to MERSANA, under the terms of this CLOA, or impairs the rights granted by SNFX to MERSANA under the terms of this CLOA.

(b) Where this CLOA refers to an action or obligation to be undertaken by the Agent, SNFX will cause the Agent, during the Term, to undertake such obligations or other actions, and SNFX will be responsible and liable for any acts or omissions by the Agent.

7.6. DISCLAIMER. EXCEPT AS PROVIDED IN THIS ARTICLE 7, NEITHER PARTY MAKES ANY REPRESENTATION OR WARRANTY (EXPRESS, IMPLIED, STATUTORY OR OTHERWISE) WITH RESPECT TO THE SUBJECT MATTER OF THIS CLOA, AND EACH PARTY SPECIFICALLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND ALL WARRANTIES AND CONDITIONS OF THE VALIDITY OF THE LICENSED PATENTS OR NONINFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS. THIS SECTION 7.6 SHALL NOT BE CONSTRUED TO LIMIT EITHER PARTY's OBLIGATIONS UNDER ARTICLE 8.

ARTICLE 8
INDEMNIFICATION; INSURANCE

8.1. Indemnification by MERSANA. MERSANA shall indemnify, hold harmless, and defend SNFX and its Representatives ("SNFX Indemnitees") from and against any and all Third Party claims, suits, losses, liabilities, damages, costs, fees and expenses (including reasonable attorneys' fees) (collectively, "Losses") finally awarded to a Third Party by a court of competent jurisdiction or agreed to in a settlement approved by MERSANA that results from any claim made or brought against a SNFX Indemnitee by or on behalf of such Third Party, and subject to Section 8.3, any direct out-of-pocket costs and expenses (including reasonable attorneys' fees) ("Litigation Costs") incurred by a SNFX Indemnitee while investigating or conducting the defense of such Third Party claim, in any such case, solely to the extent such claim is directly based on or directly arises out of (a) the breach by MERSANA of any representation, warranty or covenant contained in this CLOA, (b) the negligence or willful misconduct of MERSANA or its

Representatives or Sublicensees in connection with the performance of MERSANA's obligations in this CLOA, (c) any actual violation by MERSANA of applicable Laws in the Development, Manufacture, Commercialization or Exploitation of any Product, (d) the Development, Manufacturing or Commercialization of a Product by MERSANA or its Affiliates or Sublicensees (including product liability) in the Territory, or (e) the Development, Manufacture, Commercialization or Exploitation of any Product that infringes any Patent or misappropriates any Know-How owned or possessed by any Third Party (except to the extent no such infringement or misappropriation would occur but for the practice of the Licensed Technology); provided, however, that such indemnification right shall not apply to any Losses or Litigation Costs for which SNFX is obligated to indemnify MERSANA under Section 8.2.

8.2. Indemnification by SNFX. SNFX shall indemnify, hold harmless, and defend MERSANA and its Representatives ("MERSANA Indemnitees") from and against any and all Losses finally awarded to a Third Party by a court of competent jurisdiction or agreed to in a settlement approved by SNFX that result from any claim made or bought against an MERSANA Indemnitee by or on behalf of such Third Party, and subject to Section 8.3, any Litigation Costs incurred by a MERSANA Indemnitee while investigating or conducting the defense of such Third Party claim, in any such case, solely to the extent such claim is directly based on or directly arises out of (a) the breach by SNFX of any representation, warranty or covenant contained in this CLOA, (b) the negligence or willful misconduct of SNFX or its Representatives, licensees or sublicensees in connection with the performance of SNFX's obligations in this CLOA, (c) any actual violation by SNFX of applicable Laws in its performance of its obligations in this CLOA, or (d) any action or omission of the Agent in performing its obligations under or in connection with this CLOA; provided, however, that such indemnification right shall not apply to any Losses or litigation costs for which MERSANA is obligated to indemnify SNFX under Section 8.1.

8.3. Procedure. In the event of any such claim against any MERSANA Indemnitee or SNFX Indemnitee (individually, an "Indemnitee"), such Indemnitee shall promptly notify the other Party (the "Indemnifying Party") in writing of the claim and the Indemnifying Party shall manage and control, at its sole expense, the defense of the claim and its settlement; provided that the failure to so notify promptly shall not relieve the Indemnifying Party of its obligations under this Article 8 except to the extent of the actual prejudice suffered by such Indemnifying Party as a result of such failure. The Indemnitee shall cooperate with the Indemnifying Party and may, at its option and expense, be represented in and participate in any such action or proceeding. The Indemnifying Party shall not be liable for any settlements, litigation costs or expenses incurred by any Indemnitee without the Indemnifying Party's written authorization. Notwithstanding the foregoing, if the Indemnifying Party believes that any of the exceptions to its obligation of indemnification of the Indemnitees set forth in Section 8.1 or Section 8.2 may apply, the Indemnifying Party shall promptly notify the Indemnitees, which shall then have the right to be represented in any such action or proceeding by separate counsel at their expense; provided that the Indemnifying Party shall be responsible for payment of such expenses if the Indemnitees are ultimately determined to be entitled to indemnification from the Indemnifying Party. The Indemnifying Party shall not effect any settlement of any such claims without the consent of the Indemnitee, which consent shall not be unreasonably withheld or delayed, unless such settlement involves only the payment of money and includes a complete and unconditional release of the Indemnitee from all liability with respect thereto.

8.4. Insurance. Each Party shall procure and maintain insurance, or shall self-insure, in each case, in a manner adequate to cover its obligations hereunder and consistent with normal business practices of prudent companies similarly situated at all times during which any Product is being Developed, Manufactured, Commercialized or otherwise Exploited hereunder. Each Party shall procure insurance or self-insure at its own expense. Such insurance does not create a limit on either Party's liability with respect to its indemnification obligations under this Article 8.

Each Party shall provide the other Party with written evidence of such insurance or self-insurance upon request. Each Party shall provide the other Party with written notice at least [**] days before the cancellation or non-renewal of such insurance.

ARTICLE 9
LIMITATION OF LIABILITY

9.1. LIMITATION. EXCEPT FOR ANY LOSSES THAT RESULT FROM A BREACH OF THE CONFIDENTIALITY OBLIGATIONS IN ARTICLE 6 OR ARE SUBJECT TO INDEMNIFICATION UNDER ARTICLE 8, OR LIABILITY THAT IS THE CONSEQUENCE OF GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF A PARTY, IN NO EVENT SHALL EITHER PARTY BE LIABLE TO THE OTHER PARTY FOR ANY SPECIAL, CONSEQUENTIAL, EXEMPLARY OR INCIDENTAL DAMAGES (INCLUDING LOST OR ANTICIPATED REVENUES OR PROFITS RELATING TO THE SAME), HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY ARISING OUT OF THIS CLOA, WHETHER SUCH CLAIM IS BASED ON CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, AND WHETHER OR NOT SUCH PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. THIS ARTICLE 9 SHALL NOT BE CONSTRUED TO LIMIT EITHER PARTY'S OBLIGATIONS UNDER ARTICLE 8.

ARTICLE 10
TERM AND TERMINATION

10.1. Term. This CLOA shall commence on the Effective Date and, on a country-by-country and Licensed Target-by-Licensed Target basis, and, unless earlier terminated pursuant to this Article 10, shall remain in effect until the last to expire of any Royalty Term for each Product against a Licensed Target in such country (the "Term").

10.2. Termination.

(a) For Convenience. MERSANA shall have the right, at any time, to terminate this CLOA in its entirety or on a Licensed Target-by-Licensed Target basis (in the event of termination of this CLOA on a Licensed Target-by-Licensed Target basis pursuant to this Section 10.2(a) or Section 10.2(b), each such terminated Licensed Target, a "Terminated Target") by providing not less than [**] days' prior written notice to SNFX of such termination.

(b) For Material Breach. If either Party shall at any time breach any material term, condition or agreement herein, and shall fail to have cured any such default or breach within [**] days (or [**] days if such default or breach is the non-payment of any amounts due hereunder) (such period, the "Notice Period") after receipt of written notice thereof by the other Party, then the other Party may, at its option, terminate this CLOA upon written notice to the other Party; provided that, in the event such an uncured breach by either Party relates only to one or more, but not all, of the Licensed Targets, the non-breaching Party shall only have the right to terminate this CLOA with respect to such Licensed Target(s); provided further, that the non-breaching Party shall have the right to terminate this CLOA in its entirety in the event that such an uncured breach by the other Party relates to at least [**] of the Licensed Targets; provided further, that if a breach is unrelated to any payment obligations hereunder and cannot be cured within the Notice Period but the breaching Party commences actions to cure such breach within the Notice Period, the Notice Period will be extended for an additional [**] days so long as the breaching Party thereafter diligently continues such actions; and provided further that if either Party initiates a dispute resolution procedure under Section 11.11 to resolve the dispute for which termination is being sought during the Notice Period, the Notice Period will be tolled and the termination will become effective only if such breach remains uncured for [**] days after the final resolution of the dispute through such dispute resolution procedure (or, if

the breach is unrelated to any payment obligations hereunder and cannot be cured within such [**] day period after such final resolution, such period to cure such breach will be extended for a subsequent [**] day period so long as the breaching Party diligently continues such actions to cure such breach). Any termination of this CLOA under this Section 10.2 shall not, however, prejudice the right of the Party who terminates this CLOA to recover any payment due at the time of such termination.

(c) For Bankruptcy. Either Party may terminate this CLOA (i) immediately upon written notice to the other Party in the event the other Party is insolvent or initiates a voluntary proceeding under any applicable bankruptcy Law or code; or (ii) immediately upon written notice to the other Party in the event the other Party becomes the subject of an involuntary proceeding under any applicable bankruptcy Law or code and such proceeding is not dismissed or stayed within [**] days of its commencement.

(d) Patent Challenge. SNFX may terminate this CLOA in its entirety upon [**] days' written notice to MERSANA in the event MERSANA, or any of its Affiliates or Sublicensees, challenges in a legal or administrative proceeding the validity or enforceability of a Valid Claim of any Licensed Patent (except as (i) required under a court order or subpoena or (ii) a defense against a claim, action or proceeding asserted by SNFX against MERSANA or any of its Affiliates or Sublicensees); provided that any such termination shall not become effective if (A) such action has been withdrawn before the end of the aforementioned notice period or (B) in the event that the challenging party is a Sublicensee of MERSANA, MERSANA terminates such Sublicensee's Sublicense Agreement to the challenged Licensed Patent before the end of the aforementioned notice period. In addition, if the Valid Claim of a Licensed Patent is upheld, MERSANA shall reimburse SNFX for its reasonable legal costs and expenses incurred in defending any such challenge.

10.3. Effect of Expiration or Termination.

(a) Rights and Obligations Upon Expiration or Termination.

(1) Upon expiration or termination of this CLOA, neither Party shall have any further rights or obligations hereunder in the Territory with respect to the Terminated Targets or under this CLOA in its entirety, as applicable, except pursuant to any provisions hereunder that expressly survive such expiration or termination (including, for the avoidance of doubt, this Section 10.3).

(2) Upon the date of expiration (but not earlier termination) of each Royalty Term with respect to all Products with respect to a Licensed Target in a country, the rights and licenses granted by SNFX or its Affiliates to MERSANA and its Affiliates under this CLOA to Develop, Manufacture, Commercialize and otherwise Exploit Products against such Licensed Target in the Field throughout the Territory shall convert to irrevocable, perpetual, non-exclusive, royalty-free, fully paid-up, freely transferable, non-terminable rights and licenses, with the right to grant sublicenses (through multiple tiers), with no further obligation to SNFX.

(3) In the event of any termination by MERSANA pursuant to Sections 10.2(b) or 10.2(c), the rights and licenses granted by SNFX or its Affiliates to MERSANA and its Affiliates under this CLOA to Develop, Manufacture, Commercialize and otherwise Exploit Products against a Licensed Target in the Field throughout the Territory shall convert to irrevocable, perpetual, non-exclusive, freely transferable, non-terminable rights and licenses, with the right to grant sublicenses (through multiple tiers), subject to the continued payment by MERSANA of all amounts due to SNFX pursuant to Article 3 during the applicable Royalty Term in a country;

(4) In the event of any termination by SNFX pursuant to Sections 10.2(b), 10.2(c), or 10.2(d) or MERSANA terminates pursuant to Section 10.2(a), as of the effective date of such termination of this CLOA:

(i) this CLOA and all rights and licenses granted to MERSANA under Sections 2.1, 2.2 and 4.4(a) shall terminate with respect to the Terminated Targets or with respect to all Licensed Targets, as applicable, and all such applicable rights in the Licensed Technology shall revert to SNFX; and

(ii) except as required for a Party to exercise its rights or fulfill its obligations under this Section 10.3, each Party shall return to the other Party or destroy (at the disclosing Party's option) and cease using all Confidential Information of the other Party (including, for the avoidance of doubt, the Licensed Know-How and all copies thereof) that are solely related to the Terminated Targets or with respect to all Confidential Information if this CLOA is terminated in its entirety, as applicable; provided, however, each Party may retain one (1) copy of such Confidential Information for archival purposes. Each Party shall confirm in writing to the other Party that all such Confidential Information, except one (1) copy for archival purposes, has been returned to the other Party. Notwithstanding the foregoing, the obligation to return Confidential Information shall not cover information that is required to be retained by applicable Law or information maintained on routine computer system backup tapes, disks or other backup storage devices as long as such backed-up information is not used, disclosed or otherwise recovered from such backup devices.

(b) Accrued Rights. Termination of this CLOA for any reason will be without prejudice to any rights that will have accrued to the benefit of a Party prior to such termination. Such termination will not relieve a Party from accrued payment obligations or from obligations which are expressly indicated to survive termination of this CLOA.

(c) Survival. The provisions of Sections 2.1(a) (to the extent set forth in Section 10.3(a)(2) and 10.3(a)(3)), 2.2(d)(3), 2.4(b), 2.11, 2.12, 5.1, 5.2, 5.3, 10.3 and Article 1, Article 3 (to the extent set forth in Section 10.3(a)(3)), Article 6, Article 7, Article 8, Article 9 and Article 11 shall survive expiration or termination of this CLOA for the period so specified, if any, or for perpetuity.

ARTICLE 11
GENERAL PROVISIONS

11.1. Entire Agreement. The Parties acknowledge that this CLOA, together with the exhibits and schedules attached hereto, sets forth the entire agreement and understanding of the Parties as to the subject matter hereof, and supersedes all prior and contemporaneous discussions, agreements and writings in respect hereto, except for the Material Transfer Agreement which shall remain in full force and effect between SNFX and MERSANA, and the Three-way Mutual Non-Disclosure Agreement which shall remain in full force and effect between SNFX, MERSANA and Me Jean-Paul Vulliety. To the extent there is any conflict or ambiguity between this CLOA and the Material Transfer Agreement (or any amendments thereto that may be agreed in the future between the Parties), this CLOA shall control. To the extent there is any conflict or ambiguity between this CLOA and the Three-way Mutual Non-Disclosure Agreement (or any amendments thereto that may be agreed in the future between the parties thereto), the Three-way Mutual Non-Disclosure Agreement shall control.

11.2. Modification; Waiver. No waiver, modification, amendment or alteration of any provision of this CLOA will be valid or effective unless made in writing and signed by each of the Parties. The failure of a Party to enforce any rights or provisions of the CLOA shall not be

construed to be a waiver of such rights or provisions, or a waiver by such Party to thereafter enforce such rights or provisions or any other rights or provisions hereunder.

11.3. Further Assurances. Each Party agrees to execute, acknowledge, and deliver such further instruments and to do all such other acts as may be necessary or appropriate in order to carry out the express provisions of this CLOA.

11.4. Force Majeure. Neither Party shall be held responsible for any delay or failure in performance hereunder caused by strikes, embargoes, unexpected government requirements, civil or military authorities, acts of God, earthquake, terrorism, or by the public enemy or other causes reasonably beyond such Party's control and without such Party's fault or negligence; provided that the affected Party notifies the unaffected Party as soon as reasonably possible, and resumes performance hereunder as soon as reasonably possible following cessation of such force majeure event.

11.5. Assignments. A Party shall not have the right to assign, by operation of law or otherwise, any of its rights or obligations under this CLOA without the prior written consent of the other Party, which consent shall not be unreasonably withheld, except that either Party may assign or transfer this CLOA in its entirety, without the written consent of the other Party, (a) to any successor in interest that acquires all or substantially all of the business or assets of a Party or that portion of the business or assets of such Party pertaining to the subject matter of this CLOA (whether by merger, reorganization, acquisition, consolidation, sale or otherwise) or (b) to its Affiliate; provided that any permitted assignee will assume all rights and obligations of its assignor under this CLOA. Any assignment not in accordance with this Section 11.5 will be null and void.

11.6. Performance by Affiliates. The Parties recognize that each may perform some or all of its obligations under this CLOA through its Affiliates or may exercise some or all of its rights under this CLOA through its Affiliates; provided, however, that each Party shall remain responsible and be the guarantor of the performance by its Affiliates and shall cause its Affiliates to comply with the provisions of this CLOA in connection with such performance. In particular and without limitation, all Affiliates of a Party that receive Confidential Information of the other Party pursuant to this CLOA shall be governed and bound by all obligations set forth in Article 6. Each Party will prohibit all of its Affiliates from taking any action that such Party is prohibited from taking under this CLOA as if such Affiliates were parties to this CLOA.

11.7. Relationship of the Parties. The Parties shall perform their obligations under this CLOA as independent contractors and nothing in this CLOA is intended or will be deemed to constitute a partnership, agency, joint venture or employer-employee relationship between the Parties. Neither Party will have any right, power or authority to assume, create, or incur any expense, liability, or obligation, express or implied, on behalf of the other.

11.8. No Third Party Beneficiaries. Except for the rights to indemnification provided for under Article 8 above, all rights, benefits and remedies under this CLOA are solely intended for the benefit of MERSANA and SNFX, and except for such rights to indemnification expressly provided pursuant to Article 8, no Third Party shall have any rights whatsoever to: (a) enforce any obligation contained in this CLOA; (b) seek a benefit or remedy for any breach of this CLOA; or (c) take any other action relating to this CLOA under any legal theory, including actions in contract, tort (including negligence, gross negligence and strict liability), or as a defense, setoff or counterclaim to any action or claim brought or made by the Parties.

11.9. No Use of Names. Except as otherwise required under applicable Law or permitted under this CLOA, neither Party will use the name, logo or trademark of the other Party or any of

its Affiliates or any of its or their Sublicensees in its advertising, press releases or marketing or promotional materials without the prior written consent of such other Party.

11.10. Notices. Any notice, request, delivery, approval or consent required or permitted to be given under this CLOA will be in writing and will be deemed to have been sufficiently given if delivered in person (in which case, it will be effective upon delivery), transmitted by facsimile, if facsimile number is provided below (receipt verified; in which case, it will be effective upon delivery), by express courier service (signature required; in which case, it will be effective two days after being deposited with such courier service), or transmitted by email, if email is provided below (receipt verified; in which case, it will be effective upon delivery) to the Party to which it is directed.

If to SNFX: Synaffix B.V.
Industrielaan 63
5349 AE, Oss
The Netherlands
Email: p.vandesande@synaffix.com
Attention: CEO
With copy to: legal@synaffix.com

If to MERSANA: Mersana Therapeutics
840 Memorial Drive
Cambridge, Massachusetts 02139 USA
Facsimile: (617) 498-0109
Email: [**]
Attention: Legal Department

With a copy to:
Ropes & Gray LLP
800 Boylston Street
Boston, MA 02199
Attention: Marc Rubenstein
Fax: (617) 235-0706
Email: marc.rubenstein@ropesgray.com

11.11. Dispute Resolution. The Parties agree that any disputes arising with respect to the interpretation, enforcement, termination or invalidity of this CLOA (each, a "Dispute") shall first be presented to the Parties' respective Executive Officers for resolution. If the Parties are unable to resolve a given Dispute pursuant to this Section 11.11 after discussions between the Executive Officers within ten (10) days after referring such Dispute to the Executive Officers, either Party may, at its sole discretion, seek resolution of such matter in accordance with Section 11.12.

11.12. Submission to Court for Resolution. Subject to Section 11.11, the Parties hereby irrevocably and unconditionally consent to the exclusive jurisdiction of the courts located in the Southern District of New York for any action, suit or proceeding (other than appeals therefrom) arising out of or relating to this CLOA, and agree not to commence any action, suit or proceeding (other than appeals therefrom) related thereto except in such courts. The Parties further hereby irrevocably and unconditionally waive any objection to the laying of venue of any action, suit or proceeding (other than appeals therefrom) arising out of or relating to this CLOA in the courts of New York, and hereby further irrevocably and unconditionally waive and agree not to plead or claim in any such court that any such action, suit or proceeding brought in any such court has been brought in an inconvenient forum. Each Party further agrees that service of any process, summons, notice or document by registered mail to its address set forth in Section 11.10 shall be

effective service of process for any action, suit or proceeding brought against it under this CLOA in any such court.

11.13. Governing Law. This CLOA and all questions regarding its validity or interpretation, or the performance or breach of this CLOA, shall be governed by and construed and enforced in accordance with the laws of the State of New York and the Federal laws of the United States of America, without reference to conflicts of laws principles.

11.14. Headings. The article, section and subsection headings contained herein are for the purposes of convenience only and are not intended to define or limit the contents of the articles, sections or subsections to which such headings apply.

11.15. Severability. When possible, each provision of this CLOA will be interpreted in such manner as to be effective and valid under applicable Law, but, if any provision of this CLOA is held to be prohibited by or invalid under applicable Law, such provision will be ineffective but only to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or of this CLOA. The Parties will make a good faith effort to replace the invalid or unenforceable provision with a valid one which in its economic effect is most consistent with the invalid or unenforceable provision.

11.16. Equitable Relief. Nothing contained in this CLOA will deny any Party the right to seek injunctive or other equitable relief from a court of competent jurisdiction in the context of prospective irreparable harm.

11.17. Counterparts. This CLOA may be executed in two (2) or more counterparts (including by facsimile or electronic signature), each of which shall be deemed an original and all of which together shall constitute one instrument.

[*Signature Page Follows*]

IN WITNESS WHEREOF, the Parties have executed this CLOA in duplicate originals by their duly authorized representatives as of the Amendment Date.

SYNAFFIX B.V.

("SNFX")

By:/s/ Peter van de Sande
Name: Peter van de Sande
Title: Chief Executive Officer
Date: November 23, 2021

MERSANA THERAPEUTICS, INC.

("MERSANA")

By:/s/ Brian DeSchuytner
Name: Brian DeSchuytner
Title: Chief Financial Officer
Date: November 22, 2021

MERSANA THERAPEUTICS, INC.
2022 INDUCEMENT STOCK INCENTIVE PLAN

1. DEFINED TERMS

The following terms, when used in the Plan (as defined below), have the meanings and are subject to the provisions set forth below:

(a) "**Accounting Rules"**: Financial Accounting Standards Board Accounting Standards Codification Topic 718, or any successor provision.

(b) "**Administrator**": The Compensation Committee, except with respect to such matters that are not delegated to the Compensation Committee by the Board (whether pursuant to committee charter or otherwise). The Compensation Committee (or the Board acting with a majority of the Independent Directors), with respect to such matters over which they retain authority under the Plan or otherwise), to the extent permitted by applicable law and subject to any requirements under the Nasdaq Stock Market Rules, may delegate (i) to one or more of its members (or one or more other members of the Board, including the full Board) such of its duties, powers and responsibilities as it may determine; provided that the grant of any Award under the Plan must be approved by the Company's Independent Directors in order to comply with the exemption from the stockholder approval requirement for "inducement grants" provided under Nasdaq Stock Market Rule 5635(c)(4); or (ii) to one or more officers of the Company the power to grant Awards to the extent permitted by Section 152 or 157(c) of the Delaware General Corporation Law, provided that the Compensation Committee (or Board, acting with a majority of the Independent Directors) shall fix the terms of the Awards to be granted by such officers, the maximum number of shares subject to Awards that the officers may grant and the time period in which such Awards may be granted, and, provided, further that no officer shall be authorized to grant Awards to any "executive officer" of the Company (as defined by Rule 3b-7 under the Securities Exchange Act of 1934, as amended (the "Exchange Act") or to any "officer" of the Company (as defined by Rule 16(a)-1(f) under the Exchange Act. For purposes of the Plan, the term "Administrator" will include the Board, the Compensation Committee, the Independent Directors, and the officer or officers delegated authority under the Plan to the extent of such delegation, as applicable.

(c) "**Award**": Any or a combination of the following:

(1) Stock Options.

(2) SARs.

(3) Restricted Stock.

(4) Unrestricted Stock.

(5) Stock Units, including Restricted Stock Units.

(6) Performance Awards.

(7) Awards (other than Awards described in (1) through (6) above) that are convertible into or otherwise based on Stock.

(d) "**Board**": The Board of Directors of the Company.

(e) "**Cause**": In the case of any Participant who is party to an employment or severance-benefit agreement that contains a definition of "Cause," the definition set forth in such agreement applies with respect to such Participant for purposes of the Plan for so long as such agreement is in effect. In every other case, "Cause" means, as determined by the Administrator, (i) a substantial failure of the Participant to perform the Participant's duties and responsibilities to the Company or any of its subsidiaries or substantial negligence in the performance of such duties and responsibilities; (ii) the commission by the Participant of a felony or a crime involving moral turpitude; (iii) the commission by the Participant of theft, fraud, embezzlement, material breach of trust or any material act of dishonesty involving the Company or any of its subsidiaries; (iv) a significant violation by the Participant of the code of conduct of the Company or any of its subsidiaries of any material policy of the Company or any of its subsidiaries, or of any statutory or common law duty of loyalty to the Company or any of its subsidiaries; (v) material breach of any of the terms of the Plan or any Award made under the Plan, or of the terms of any other agreement between the Company or any of its subsidiaries and the Participant; or (vi) other conduct by the Participant that could be expected to be harmful to the business, interests or reputation of the Company.

(f) "**Code**": The U.S. Internal Revenue Code of 1986, as from time to time amended and in effect, or any successor statute as from time to time in effect.

(g) "**Compensation Committee**": The Compensation Committee of the Board.

(h) "**Company**": Mersana Therapeutics, Inc., a Delaware corporation.

(i) "**Covered Transaction**": Any of (i) a consolidation, merger or similar transaction or series of related transactions, including a sale or other disposition of stock, in which the Company is not the surviving corporation or which results in the acquisition of all or substantially all of the Company's then-outstanding common stock by a single person or entity or by a group of persons and/or entities acting in concert; (ii) a sale or transfer of all or substantially all the Company's assets; or (iii) a dissolution or liquidation of the Company. Where a Covered Transaction involves a tender offer that is reasonably expected to be followed by a merger described in clause (i) (as determined by the Administrator), the Covered Transaction will be deemed to have occurred upon consummation of the tender offer.

(j) "**Date of Adoption**": The date the Plan was adopted by the Board.

(k) "**Director**": A member of the Board who is not an Employee.

(l) "**Employee**": Any person who is employed by the Company or any of its subsidiaries.

(m) "**Fair Market Value**": As of a particular date, (i) the closing price for a share of Stock reported on the Nasdaq Stock Market (or any other national securities exchange on which the Stock is then listed) for that date or, if no closing price is reported for that date, the closing price on the immediately preceding date on which a closing price was reported or (ii) in the event that the Stock is not traded on a national securities exchange, the fair market value of a share of Stock determined by the Administrator consistent with the rules of Section 409A to the extent applicable.

(n) "**Independent Directors**": the Company's independent directors (as defined in Nasdaq Stock Market Rule 5605(a)(2).

(o) "**NSO**" or "**Non-Statutory Stock Option**": A Stock Option that is not intended to be an "incentive stock option" within the meaning of Section 422.

(p) "**Participant**": A person who is granted an Award under the Plan.

(q) "**Performance Award**": An Award subject to Performance Criteria.

(r) "**Performance Criteria**": Specified criteria, other than the mere continuation of Service or the mere passage of time, the satisfaction of which is a condition for the grant, exercisability, vesting or full enjoyment of an Award. A Performance Criterion and any targets with respect thereto need not be based upon an increase, a positive or improved result or avoidance of loss. Performance Criterion may include an objectively determinable measure or objectively determinable measures of performance relating to any, or any combination of, the following (measured either absolutely or comparatively (including, without limitation, by reference to an index or indices or the performance of one or more companies) and determined either on a consolidated basis or, as the context permits, on a divisional, subsidiary, line of business, project or geographical basis or in combinations thereof and subject to such adjustments, if any, as the Administrator specifies): sales; revenues; assets; expenses; earnings before or after deduction for all or any portion of interest, taxes, depreciation, or amortization, whether or not on a continuing operations or an aggregate or per share basis; return on equity, investment, capital or assets; one or more operating ratios; borrowing levels, leverage ratios or credit rating; market share; capital expenditures; cash flow; stock price; stockholder return; sales of particular products or services; customer acquisition or retention; acquisitions and divestitures (in whole or in part); joint ventures and strategic alliances; spin-offs, split-ups and the like; reorganizations; recapitalizations, restructurings, financings (issuance of debt or equity) or refinancings; or strategic business criteria, consisting of one or more objectives based on: meeting specified market penetration or value added, product development or introduction (including, without limitation, any clinical trial accomplishments, regulatory or other filings or approvals, or other product development milestones), geographic business expansion, cost targets, cost reductions or savings, customer satisfaction, operating efficiency, acquisition or retention, employee satisfaction, information technology, corporate development (including, without limitation, licenses, innovation, research or establishment of third-party collaborations), manufacturing or process development, legal compliance or risk reduction, patent application or issuance goals or any other metric determined by the Administrator. The Administrator may at any time provide that one or more of the Performance Criteria applicable to such Award will be adjusted to reflect events (for example, but without limitation, acquisitions or dispositions) occurring during the performance period that affect the applicable Performance Criterion or Criteria or may waive the Performance Criteria.

(s) "**Plan**": The Mersana Therapeutics, Inc. 2022 Inducement Stock Incentive Plan, as from time to time amended and in effect.

(t) "**Restricted Stock**": Stock subject to restrictions requiring that it be redelivered or offered for sale to the Company if specified service or performance-based conditions are not satisfied.

(u) "**Restricted Stock Unit**": A Stock Unit that is, or as to which the delivery of Stock or cash in lieu of Stock is, subject to the satisfaction of specified performance or other vesting conditions.

(v) "**SAR**": A right entitling the holder upon exercise to receive an amount (payable in cash or in shares of Stock of equivalent value) equal to the excess of the Fair Market Value of the shares of Stock subject to the right over the base value from which appreciation under the SAR is to be measured.

(w) "**Section 409A**": Section 409A of the Code and the regulations thereunder.

(x) "**Section 422**": Section 422 of the Code and the regulations thereunder.

(y) "**Service**": A Participant's employment or other service with the Company or any of its subsidiaries. Service will be deemed to continue, unless the Administrator otherwise determines at the time of grant of an Award or thereafter, so long as the Participant is employed by, or otherwise is providing services to, the Company or any of its subsidiaries. If a Participant's employment or other service relationship is with any subsidiary of the Company and that entity ceases to be a subsidiary of the Company, the Participant's Service will be deemed to have terminated when the entity ceases to be a subsidiary of the Company unless the Participant transfers Service to the Company or any of its remaining subsidiaries. Notwithstanding the foregoing, in construing the provisions of any Award relating to the payment of "nonqualified deferred compensation" (subject to Section 409A) upon a termination or cessation of Service, references to termination or cessation of employment, separation from service, retirement or similar or correlative terms will be construed to require a "separation from service" (as that term is defined in Section 1.409A-1(h) of the Treasury Regulations) from the Company and from all other corporations and trades or businesses, if any, that would be treated as a single "service recipient" with the Company under Section 1.409A-1(h)(3) of the Treasury Regulations. The Company may, but need not, elect in writing, subject to the applicable limitations under Section 409A, any of the special elective rules prescribed in Section 1.409A-1(h) of the Treasury Regulations for purposes of determining whether a "separation from service" has occurred. Any such written election will be deemed a part of the Plan.

(z) "**Stock**": Common stock of the Company, par value $0.0001 per share.

(aa) "**Stock Option**": An option entitling the holder to acquire shares of Stock upon payment of the exercise price.

(ab) "**Stock Unit**": An unfunded and unsecured promise, denominated in shares of Stock, to deliver Stock or cash measured by the value of Stock in the future.

(ac) "**Unrestricted Stock**": Stock not subject to any restrictions under the terms of the Award.

2. PURPOSE

The Plan provides for the grant of Awards consisting of, or based on, Stock. The purposes of the Plan are to attract, retain and reward persons who are expected to make important contributions to the Company with an inducement material for such persons to enter into employment with the Company and its subsidiaries, to incentivize them to generate stockholder value, to enable them to participate in the growth of the Company and to align their interests with the interests of the Company's stockholders.

3. ADMINISTRATION

The Administrator has discretionary authority, subject only to the express provisions of the Plan, to interpret the Plan; determine eligibility for and grant Awards; determine, modify or waive the terms and conditions of any Award; determine the form of settlement of Awards (whether in cash, shares of Stock, other Awards, or other property); prescribe forms, rules and procedures relating to the Plan and Awards; and otherwise do all things necessary or desirable to carry out the purposes of the Plan. Determinations of the Administrator made under the Plan are conclusive and bind all persons.

4. LIMITS ON AWARDS UNDER THE PLAN

(a) **Number of Shares**. Subject to adjustment as provided in Section 7(b), the maximum number of shares of Stock that may be delivered in satisfaction of Awards under the Plan is 2,000,000 shares of Stock. For purposes of this Section 4(a), shares of Stock shall not be treated as delivered under the Plan unless and until, and to the extent, they are actually issued and delivered to a Participant. Without limiting the generality of the foregoing, shares of Stock withheld by the Company in payment of the exercise price or purchase price of an Award or in satisfaction of tax withholding requirements with respect to an Award and shares of Stock underlying any portion of an Award that is settled or that expires, becomes unexercisable, terminates or is forfeited to or repurchased by the Company, in each case, without the delivery of Stock shall not be treated as delivered in satisfaction of Awards under the Plan.

(b) **Type of Shares**. Stock delivered by the Company under the Plan may be authorized but unissued Stock or previously issued Stock acquired by the Company. No fractional shares of Stock will be delivered under the Plan.

5. ELIGIBILITY AND PARTICIPATION

Awards under the Plan may only be granted to persons who (a) were not previously an Employee or Director of the Company or (b) are commencing employment with the Company following a bona fide period of non-employment, in either case as an inducement material to the individual's entering into employment with the Company and in accordance with the requirements of Nasdaq Stock Market Rule 5635(c)(4). For the avoidance of doubt, neither consultants nor advisors shall be eligible to participate in the Plan.

6. RULES APPLICABLE TO AWARDS

(a) **All Awards**.

(1) **Award Provisions**. The Administrator shall determine the terms of all Awards, subject to the limitations provided herein. By accepting (or, under such rules as the Administrator may prescribe, being deemed to have accepted) an Award, the Participant will be deemed to have agreed to the terms of the Award and the Plan.

(2) **Transferability**. Except as the Administrator otherwise expressly provides in accordance with the third sentence of this Section 6(a)(2), no Awards may be transferred other than by will or by the laws of descent and distribution. During a Participant's lifetime, except as the Administrator otherwise expressly provides in accordance with the third sentence of this Section 6(a)(2), SARs and NSOs may be exercised only by the Participant. The Administrator may permit the transfer of Awards, subject to applicable securities and other laws and such limitations as the Administrator may impose.

(3) **Vesting, *etc***. The Administrator shall determine the time or times at which an Award vests or becomes exercisable and the terms on which a Stock Option or SAR remains exercisable. Without limiting the foregoing, the Administrator may at any time accelerate the vesting or exercisability of an Award, regardless of any adverse or potentially adverse tax or other consequences resulting from such acceleration. Unless the Administrator expressly provides otherwise, however, the following rules will apply if a Participant's Service ceases:

(A) Except as provided in (B) and (C) below, immediately upon the cessation of the Participant's Service each Stock Option and SAR that is then held by the Participant or by the Participant's permitted transferees, if any, will cease to be exercisable and

will terminate and all other Awards that are then held by the Participant or by the Participant's permitted transferees, if any, to the extent not already vested will be forfeited.

(B) Subject to (C) and (D) below, all vested and unexercised Stock Options and SARs held by the Participant or the Participant's permitted transferees, if any, immediately prior to the cessation of the Participant's Service, to the extent then exercisable, will remain exercisable for the lesser of (i) a period of three months or (ii) the period ending on the latest date on which such Stock Option or SAR could have been exercised without regard to this Section 6(a)(3), and will thereupon immediately terminate.

(C) Subject to (D) below, all vested and unexercised Stock Options and SARs held by a Participant or the Participant's permitted transferees, if any, immediately prior to the cessation of the Participant's Service due to his or her death, to the extent then exercisable, will remain exercisable for the lesser of (i) the one-year period ending with the first anniversary of the Participant's death or (ii) the period ending on the latest date on which such Stock Option or SAR could have been exercised without regard to this Section 6(a)(3), and will thereupon immediately terminate.

(D) All Stock Options and SARs (whether or not vested or exercisable) held by a Participant or the Participant's permitted transferees, if any, immediately prior to the cessation of the Participant's Service will immediately terminate upon such cessation of Service if the termination is for Cause or occurs in circumstances that in the determination of the Administrator would have constituted grounds for the Participant's Service to be terminated for Cause.

(4) Recovery of Compensation. The Administrator may provide in any case that any outstanding Award (whether or not vested or exercisable) and the proceeds from the exercise or disposition of any Award or Stock acquired under any Award will be subject to forfeiture and disgorgement to the Company, with interest and other related earnings, if the Participant to whom the Award was granted violates (i) a non-competition, non-solicitation, confidentiality or other restrictive covenant by which he or she is bound or (ii) any Company policy applicable to the Participant that provides for forfeiture or disgorgement with respect to incentive compensation that includes Awards under the Plan. In addition, the Administrator may require forfeiture and disgorgement to the Company of any outstanding Award and the proceeds from the exercise or disposition of any Award or Stock acquired under any Award, with interest and other related earnings, to the extent required by law or applicable stock exchange listing standards, including, without limitation, Section 10D of the Exchange Act, and any applicable Company policy. Each Participant, by accepting or being deemed to have accepted an Award under the Plan, agrees to cooperate fully with the Administrator, and to cause any and all permitted transferees of the Participant to cooperate fully with the Administrator, to effectuate any forfeiture or disgorgement required hereunder. Neither the Administrator nor the Company nor any other person, other than the Participant and his or her permitted transferees, if any, will be responsible for any adverse tax or other consequences to a Participant or his or her permitted transferees, if any, that may arise in connection with this Section 6(a)(4).

(5) Taxes. The delivery, vesting and retention of Stock, cash or other property under an Award are conditioned upon full satisfaction by the Participant of all tax withholding requirements with respect to the Award. The Administrator shall prescribe such rules for the withholding of taxes with respect to any Award as it deems necessary. The Administrator may hold back shares of Stock from an Award or permit a Participant to tender previously owned shares of Stock in satisfaction of tax withholding requirements (but not in excess of the maximum withholding amount consistent with the award being subject to equity accounting treatment under the Accounting Rules).

(6) **Dividend Equivalents, *etc***. The Administrator may provide for the payment of amounts (on terms and subject to conditions established by the Administrator) in lieu of cash dividends or other cash distributions with respect to Stock subject to an Award whether or not the holder of such Award is otherwise entitled to share in the actual dividend or distribution in respect of such Award. Any entitlement to dividend equivalents or similar entitlements will be established and administered either consistent with an exemption from, or in compliance with, the requirements of Section 409A. Dividends or dividend equivalent amounts payable in respect of Awards that are subject to restrictions may be subject to such limits or restrictions as the Administrator may impose.

(7) **Rights Limited**. Nothing in the Plan may be construed as giving any person the right to be granted an Award or to continued Service with the Company or any of its subsidiaries, or any rights as a stockholder except as to shares of Stock actually issued under the Plan. The loss of existing or potential profit in Awards will not constitute an element of damages in the event of termination of Service for any reason, even if the termination is in violation of an obligation of the Company or any of its subsidiaries to the Participant.

(8) **Coordination with Other Plans**. Awards under the Plan may be granted in tandem with other Awards under the Plan or awards made under other compensatory plans or programs of the Company or any of its subsidiaries.

(9) **Section 409A**.

(A) Without limiting the generality of Section 11(b) hereof, each Award will contain such terms as the Administrator determines and will be construed and administered, such that the Award either qualifies for an exemption from the requirements of Section 409A or satisfies such requirements.

(B) If a Participant is deemed on the date of the Participant's termination of Service to be a "specified employee" within the meaning of that term under Section 409A(a)(2)(B), then, with regard to any payment that is considered nonqualified deferred compensation under Section 409A, to the extent applicable, payable on account of a "separation from service", such payment will be made or provided on the date that is the earlier of (i) the expiration of the six-month period measured from the date of such "separation from service" and (ii) the date of the Participant's death (the "**Delay Period**"). Upon the expiration of the Delay Period, all payments delayed pursuant to this Section 6(a)(9)(B) (whether they would have otherwise been payable in a single lump sum or in installments in the absence of such delay) will be paid on the first business day following the expiration of the Delay Period in a lump sum and any remaining payments due under the Award will be paid in accordance with the normal payment dates specified for them in the applicable Award agreement.

(C) For purposes of Section 409A, each payment made under this Plan will be treated as a separate payment.

(10) **Press Release**. Promptly following the grant of an Award hereunder, the Company must disclose in a press release the material terms of the grant, the number of shares of Stock involved, and, if required by law or the Nasdaq Stock Market Rules, the identity of the Participant. Each Participant, by accepting an Award, consents to the foregoing.

(b) **Stock Options and SARs**.

(1) **NSO**. Each Stock Option granted pursuant to the Plan will an NSO.

(2) **Time and Manner of Exercise**. Unless the Administrator expressly provides otherwise, no Stock Option or SAR will be deemed to have been exercised until the Administrator receives notice of exercise in a form acceptable to the Administrator that is signed by the appropriate person and accompanied by any payment required under the Award. Any attempt to exercise a Stock Option or SAR by any person other than the Participant (or a permitted transferee) will not be given effect unless the Administrator has received such evidence as it may require that the person exercising the Award has the right to do so.

(3) **Exercise Price**. The exercise price (or the base value from which appreciation is to be measured) of each Award requiring exercise must be no less than 100% of the Fair Market Value of the Stock subject to the Award, determined as of the date of grant, or such higher amount as the Administrator may determine in connection with the grant.

(4) **Payment of Exercise Price**. Where the exercise of an Award is to be accompanied by payment, payment of the exercise price must be by cash or check acceptable to the Administrator or, if so permitted by the Administrator and if legally permissible, (i) through the delivery of previously acquired unrestricted shares of Stock, or the withholding of unrestricted shares of Stock otherwise deliverable upon exercise, in either case, that have a Fair Market Value equal to the exercise price; (ii) through a broker-assisted exercise program acceptable to the Administrator; (iii) by other means acceptable to the Administrator; or (iv) by any combination of the foregoing permissible forms of payment. The delivery of previously acquired shares in payment of the exercise price under clause (i) above may be accomplished either by actual delivery or by constructive delivery through attestation of ownership, subject to such rules as the Administrator may prescribe.

(5) **Maximum Term**. The maximum term of Stock Options and SARs must not exceed 10 years from the date of grant.

(6) **Repricing**. Except in connection with a corporate transaction involving the Company (which term includes, without limitation, any stock dividend, stock split, extraordinary cash dividend, recapitalization, reorganization, merger, consolidation, split-up, spin-off, combination, or exchange of shares) or as otherwise contemplated by Section 7 below, the Company may not, without obtaining stockholder approval, (i) amend the terms of outstanding Stock Options or SARs to reduce the exercise price or base value of such Stock Options or SARs; (ii) cancel outstanding Stock Options or SARs in exchange for Stock Options or SARs with an exercise price or base value that is less than the exercise price or base value of the original Stock Options or SARs; or (iii) cancel outstanding Stock Options or SARs that have an exercise price or base value greater than the Fair Market Value of a share of Stock on the date of such cancellation in exchange for cash or other consideration.

7. EFFECT OF CERTAIN TRANSACTIONS

(a) **Mergers, *etc***. Except as otherwise expressly provided in an Award agreement or by the Administrator, the following provisions will apply in the event of a Covered Transaction:

(1) **Assumption or Substitution**. If the Covered Transaction is one in which there is an acquiring or surviving entity, the Administrator may provide for (i) the assumption or continuation of some or all outstanding Awards or any portion thereof or (ii) the grant of new awards in substitution therefor by the acquiror or survivor or an affiliate of the acquiror or survivor.

(2) **Cash-Out of Awards**. Subject to Section 7(a)(5) below, the Administrator may provide for payment (a "cash-out"), with respect to some or all Awards or any portion thereof, equal in the case of each affected Award or portion thereof to the excess, if

any, of (i) the Fair Market Value of one share of Stock times the number of shares of Stock subject to the Award or such portion, over (ii) the aggregate exercise or purchase price, if any, under the Award or such portion (in the case of a SAR, the aggregate base value above which appreciation is measured), in each case on such payment terms (which need not be the same as the terms of payment to holders of Stock) and other terms, and subject to such conditions, as the Administrator determines; provided, however, for the avoidance of doubt, that if the per share exercise or purchase price (or base value) of an Award is equal to or greater than the Fair Market Value of one share of Stock, the Award may be cancelled with no payment due hereunder or otherwise in respect of such Award.

(3) Acceleration of Certain Awards. Subject to Section 7(a)(5) below, the Administrator may provide that any Award requiring exercise will become exercisable, in full or in part, and/or that the delivery of any shares of Stock remaining deliverable under any outstanding Award of Stock Units (including Restricted Stock Units and Performance Awards to the extent consisting of Stock Units) will be accelerated, in full or in part, in each case on a basis that gives the holder of the Award a reasonable opportunity, as determined by the Administrator, following exercise of the Award or the delivery of the shares, as the case may be, to participate as a stockholder in the Covered Transaction.

(4) Termination of Awards upon Consummation of Covered Transaction. Except as the Administrator may otherwise determine in any case, each Award will automatically terminate (and in the case of outstanding shares of Restricted Stock, will automatically be forfeited) immediately upon consummation of the Covered Transaction, other than (i) any Award that is assumed or substituted pursuant to Section 7(a)(1) above and (ii) any Award that by its terms, or as a result of action taken by the Administrator, continues following the Covered Transaction.

(5) Additional Limitations. Any share of Stock and any cash or other property delivered pursuant to Section 7(a)(2) or Section 7(a)(3) above with respect to an Award may, in the discretion of the Administrator, contain such restrictions, if any, as the Administrator deems appropriate to reflect any performance or other vesting conditions to which the Award was subject and that did not lapse (and were not satisfied) in connection with the Covered Transaction. For purposes of the immediately preceding sentence, a cash-out under Section 7(a)(2) above or an acceleration under Section 7(a)(3) above will not, in and of itself, be treated as the lapsing (or satisfaction) of a performance or other vesting condition. In the case of Restricted Stock that does not vest and is not forfeited in connection with the Covered Transaction, the Administrator may require that any amounts delivered, exchanged or otherwise paid in respect of such Stock in connection with the Covered Transaction be placed in escrow or otherwise made subject to such restrictions as the Administrator deems appropriate to carry out the intent of the Plan.

(b) Changes in and Distributions with Respect to Stock.

(1) Basic Adjustment Provisions. In the event of a stock dividend, stock split or combination of shares (including a reverse stock split), recapitalization or other change in the Company's capital structure that constitutes an equity restructuring within the meaning of the Accounting Rules, the Administrator shall make appropriate adjustments to the maximum number of shares of Stock specified in Section 4(a) that may be issued under the Plan, and shall make appropriate adjustments to the number and kind of shares of stock or securities underlying Awards then outstanding or subsequently granted, any exercise or purchase prices (or base values) relating to Awards and any other provision of Awards affected by such change.

(2) Certain Other Adjustments. The Administrator may also make adjustments of the type described in Section 7(b)(1) above to take into account distributions to

stockholders other than those provided for in Section 7(a) and 7(b)(1), or any other event, if the Administrator determines that adjustments are appropriate to avoid distortion in the operation of the Plan and the requirements of Section 409A, to the extent applicable.

(3) Continuing Application of Plan Terms. References in the Plan to shares of Stock will be construed to include any stock or securities resulting from an adjustment pursuant to this Section 7.

8. LEGAL CONDITIONS ON DELIVERY OF STOCK

The Company will not be obligated to deliver any shares of Stock pursuant to the Plan or to remove any restriction from shares of Stock previously delivered under the Plan until: (i) the Company is satisfied that all legal matters in connection with the issuance and delivery of such shares have been addressed and resolved; (ii) if the outstanding Stock is at the time of delivery listed on any stock exchange or national market system, the shares to be delivered have been listed or authorized to be listed on such exchange or system upon official notice of issuance; and (iii) all conditions of the Award have been satisfied or waived. The Company may require, as a condition to the exercise of an Award or the delivery of shares of Stock under an Award, such representations or agreements as counsel for the Company may consider appropriate to avoid violation of the Securities Act of 1933, as amended, or any applicable state or non-U.S. securities law. Any Stock required to be issued to Participants under the Plan will be evidenced in such manner as the Administrator may deem appropriate, including book-entry registration or delivery of stock certificates. In the event that the Administrator determines that stock certificates will be issued to Participants under the Plan, the Administrator may require that certificates evidencing Stock issued under the Plan bear an appropriate legend reflecting any restriction on transfer applicable to such Stock, and the Company may hold the certificates pending lapse of the applicable restrictions.

9. AMENDMENT AND TERMINATION

The Administrator may at any time or times amend the Plan or any outstanding Award for any purpose which may at the time be permitted by law, and may at any time terminate the Plan as to any future grants of Awards; provided, however, that except as otherwise expressly provided in the Plan the Administrator may not, without the Participant's consent, alter the terms of an Award so as to affect materially and adversely the Participant's rights under the Award, unless the Administrator expressly reserved the right to do so at the time the Award was granted. Any amendments to the Plan will be conditioned upon stockholder approval only to the extent, if any, such approval is required by law (including the Code) or applicable stock exchange requirements, as determined by the Administrator.

10. OTHER COMPENSATION ARRANGEMENTS

The existence of the Plan or the grant of any Award will not affect the Company's right to award a person bonuses or other compensation in addition to Awards under the Plan.

11. MISCELLANEOUS

(a) Waiver of Jury Trial. By accepting or being deemed to have accepted an Award under the Plan, each Participant waives any right to a trial by jury in any action, proceeding or counterclaim concerning any rights under the Plan and any Award, or under any amendment, waiver, consent, instrument, document or other agreement delivered or which in the future may be delivered in connection therewith, and agrees that any such action, proceedings or counterclaim will be tried before a court and not before a jury. By accepting or being deemed to have accepted an Award under the Plan, each Participant certifies that no officer, representative,

or attorney of the Company has represented, expressly or otherwise, that the Company would not, in the event of any action, proceeding or counterclaim, seek to enforce the foregoing waivers. Notwithstanding anything to the contrary in the Plan, nothing herein is to be construed as limiting the ability of the Company and a Participant to agree to submit disputes arising under the terms of the Plan or any Award made hereunder to binding arbitration or as limiting the ability of the Company to require any eligible individual to agree to submit such disputes to binding arbitration as a condition of receiving an Award hereunder.

(b) Limitation of Liability. Notwithstanding anything to the contrary in the Plan, neither the Company, nor any of its subsidiaries, nor the Administrator, nor any person acting on behalf of the Company, any of its subsidiaries, or the Administrator, will be liable to any Participant, to any permitted transferee, to the estate or beneficiary of any Participant or any permitted transferee, or to any other holder of an Award by reason of any acceleration of income, or any additional tax (including any interest and penalties), asserted by reason of the failure of an Award to satisfy the requirements of Section 409A or by reason of Section 4999 of the Code, or otherwise asserted with respect to the Award.

12. ESTABLISHMENT OF SUB-PLANS

The Administrator may at any time and from time to time establish one or more sub-plans under the Plan (for local-law compliance purposes or other administrative reasons determined by the Administrator) by adopting supplements to the Plan containing, in each case, such limitations on the Administrator's discretion under the Plan, and such additional terms and conditions, as the Administrator deems necessary or desirable. Each supplement so established will be deemed to be part of the Plan but will apply only to Participants within the group to which the supplement applies (as determined by the Administrator).

13. GOVERNING LAW

(a) Certain Requirements of Corporate Law. Awards will be granted and administered consistent with the requirements of applicable Delaware law relating to the issuance of stock and the consideration to be received therefor, and with the applicable requirements of the stock exchanges or other trading systems on which the Stock is listed or entered for trading, in each case as determined by the Administrator.

(b) Other Matters. Except as otherwise provided by the express terms of an Award agreement, under a sub-plan described in Section 12 or as provided in Section 13(a) above, the domestic substantive laws of the Commonwealth of Massachusetts govern the provisions of the Plan and of Awards under the Plan and all claims or disputes arising out of or based upon the Plan or any Award under the Plan or relating to the subject matter hereof or thereof without giving effect to any choice or conflict of laws provision or rule that would cause the application of the domestic substantive laws of any other jurisdiction.

(c) Jurisdiction. By accepting an Award, each Participant will be deemed to (i) have submitted irrevocably and unconditionally to the jurisdiction of the federal and state courts located within the geographic boundaries of the United States District Court for the District of Massachusetts for the purpose of any suit, action or other proceeding arising out of or based upon the Plan or any Award; (ii) agree not to commence any suit, action or other proceeding arising out of or based upon the Plan or an Award, except in the federal and state courts located within the geographic boundaries of the United States District Court for the District of Massachusetts; and (iii) waive, and agree not to assert, by way of motion as a defense or otherwise, in any such suit, action or proceeding, any claim that he or she is not subject personally to the jurisdiction of the above-named courts that his or her property is exempt or immune from attachment or execution, that the suit, action or proceeding is brought in an inconvenient forum, that the venue

of the suit, action or proceeding is improper or that the Plan or an Award or the subject matter thereof may not be enforced in or by such court.

Name:	**[●]**
Number of RSUs:	**[●]**
Date of Grant:	**[●]**
Vesting Commencement Date	**[●]**

MERSANA THERAPEUTICS, INC.

2022 INDUCEMENT STOCK INCENTIVE PLAN

RESTRICTED STOCK UNIT AGREEMENT

This agreement (this "**Agreement**") evidences a grant of restricted stock units ("**RSUs**") by Mersana Therapeutics, Inc. (the "**Company**") to the individual named above (the "**Grantee**"), pursuant to and subject to the terms of the Mersana Therapeutics, Inc. 2022 Inducement Stock Incentive Plan (as from time to time amended and in effect, the "**Plan**"). Except as otherwise defined herein, all capitalized terms used herein have the same meanings as in the Plan.

1. Grant of RSUs. In consideration of the employment services to be rendered to the Company by the Grantee and as an inducement material for the Grantee to enter into employment with the Company, the Company grants to the Grantee on the date set forth above (the "**Date of Grant**") the number of RSUs set forth above, giving the Grantee the conditional right to receive, with respect to each RSU granted hereunder, without payment and pursuant to and subject to the terms and conditions set forth in this Agreement and in the Plan, one share of Stock (a "**Share**"), subject to adjustment pursuant to Section 7 of the Plan in respect of transactions occurring after the date hereof.

The RSUs are granted to the Grantee pursuant to the inducement grant exception under Nasdaq Stock Market Rule 5635(c)(4), as an inducement that is material to the Grantee's entering into employment with the Company.

2. Vesting; Cessation of Service.

(a) Vesting. Unless earlier terminated, forfeited, relinquished or expired, the RSUs will vest as to [25% of the shares on each of the first [four] anniversaries of the Vesting Commencement Date (each, a "**Vesting Date**")][1], subject to Grantee's continued Service through such Vesting Date.

(b) Cessation of Service. If the Grantee's Service ceases for any reason, except as expressly provided for in any agreement between the Grantee and the Company or any of its subsidiaries, the RSUs, to the extent not then vested, will be immediately forfeited.

3. Delivery of Shares. Subject to Section 4 below, the Company shall, as soon as practicable upon the vesting of any RSUs subject to this Agreement (but in no event later than 30 days following a Vesting Date), effect delivery of the Shares with respect to such vested RSUs to the Grantee (or, in the event of the Grantee's death, to the person to whom the Award has passed by will or the laws of descent and distribution). No Shares will be issued pursuant to this Agreement unless and until all legal requirements applicable to the issuance or transfer of such Shares have been complied with to the satisfaction of the Administrator.

4. Forfeiture; Recovery of Compensation.

[1] Vesting to be specified based on grant terms.

(a) The RSUs, and the proceeds from the issuance or disposition of the Shares, will be subject to forfeiture and disgorgement to the Company, with interest and related earnings, if at any time the Grantee is not in compliance with all applicable provisions of this Agreement and the Plan.

(b) By accepting, or being deemed to have accepted, the RSUs, the Grantee expressly acknowledges and agrees that his or her rights, and those of any permitted transferee of the RSUs, including the right to any Shares or proceeds from the disposition thereof, are subject to Section 6(a)(4) of the Plan (including any successor provision). Nothing in the preceding sentence may be construed as limiting the general application of Section 7 of this Agreement.

5. Nontransferability. The RSUs may not be transferred except as expressly permitted under Section 6(a)(2) of the Plan.

6. Withholding. The Grantee expressly acknowledges and agrees that the Grantee's rights hereunder, including the right to be issued Shares in settlement of the RSUs subject to this Agreement, are subject to the Grantee's satisfaction of all taxes required to be withheld, if any. At such time as the Grantee is not aware of any material nonpublic information about the Company or the Stock, and the Grantee is not otherwise prevented from doing so under the Company's Insider Trading Policy, the Grantee shall execute the instruction set forth in Schedule A attached hereto (the "**Durable Automatic Sale Instruction**") as the means of satisfying such tax obligation. If the Grantee does not execute the Durable Automatic Sale Instruction prior to an applicable vesting date, then the Grantee agrees that if under applicable law the Grantee will owe taxes at such vesting date on the portion of the award of RSUs then vested, the Company shall be entitled to immediate payment from the Grantee of the amount of any tax required to be withheld by the Company. The Company shall not deliver any shares of Stock to the Grantee until it is satisfied that all required withholdings have been made.

7. Effect on Service. This grant of the RSUs will not give the Grantee any right to be retained in the Service of the Company or any of its subsidiaries, affect the right of the Company or any of its subsidiaries to terminate the Grantee's Service at any time, or affect any right of the Grantee to terminate his or her Service with the Company at any time.

8. Provisions of the Plan. This Agreement is subject in its entirety to the provisions of the Plan, which are incorporated herein by reference. A copy of the Plan as in effect on the Date of Grant has been furnished or made available to the Grantee. By accepting, or being deemed to have accepted, all or any part of the RSUs, the Grantee agrees to be bound by the terms of the Plan and this Agreement. In the event of any conflict between the terms of this Agreement and the Plan, the terms of the Plan will control.

Schedule A

Durable Automatic Sale Instruction

This Durable Automatic Sale Instruction is being delivered to Mersana Therapeutics, Inc. (the "**Company**") by the undersigned on the date set forth below.

I hereby acknowledge that the Company has granted, or may in the future from time to time grant, to me restricted stock units ("**RSUs**") under the Company's equity incentive plans as in effect from time to time.

I acknowledge that upon the vesting dates applicable to any such RSUs, I will have compensation income equal to the fair market value of the shares of the Company's common stock subject to the RSU that vest on such date and that the Company is required to withhold income and employment taxes in respect of that compensation income on the applicable vesting date.

I desire to establish a process to satisfy such withholding obligation in respect of all RSUs that have been, or may in the future be, granted by the Company to me through an automatic sale of a portion of the shares of the Company's common stock that would otherwise be issued to me on each applicable vesting date, such portion to be in an amount sufficient to satisfy such withholding obligation, with the proceeds of such sale delivered to the Company in satisfaction of such withholding obligation.

I understand that the Company has arranged for the administration and execution of its equity incentive plans and the sale of securities by plan participants thereunder pursuant to an Internet-based platform administered by a third party (the "**Agent**") and the Agent's designated brokerage partner.

Upon any vesting of my RSUs from and after the date of this Durable Automatic Sale Instruction, I hereby appoint the Agent (or any successor administrator) to automatically sell such number of shares of the Company's common stock issuable with respect to my RSUs that vest as is sufficient to generate net proceeds sufficient to satisfy the Company's minimum statutory withholding obligations with respect to the income recognized by me upon the vesting of the RSUs (based on minimum statutory withholding rates for all tax purposes, including payroll and social security taxes, that are applicable to such income), and the Company shall receive such net proceeds in satisfaction of such tax withholding obligation.

I hereby appoint the Chief Executive Officer, the Chief Financial Officer, the Chief Legal Officer and the Treasurer, and any of them acting alone and with full power of substitution, to serve as my attorneys in fact to arrange for the sale of shares of common stock in accordance with these durable automatic sale instructions. I agree to execute and deliver such documents, instruments and certificates as may reasonably be required in connection with the sale of the shares of common stock pursuant to these durable automatic sale instructions.

By signing below, I hereby represent to the Company that, as of the date hereof, I am not aware of any material nonpublic information about the Company or its common stock and that I am not prohibited from entering into these durable automatic sale instructions by the Company's insider trading policy or otherwise. I have structured these automatic sale instructions to constitute a "binding contract" relating to the sale of common stock, consistent with the affirmative defense to liability under Section 10(b) of the Securities Exchange Act of 1934 under Rule 10b5-1(c) promulgated under such Act.

_____
Grantee

Print Name:_____

Date:_____

Name:	**[●]**
Number of Shares of Stock subject to the Stock Option:	**[●]**
Exercise Price Per Share:	**$[●]**
Date of Grant:	**[●]**
Vesting Commencement Date	**[●]**

MERSANA THERAPEUTICS, INC.
2022 INDUCEMENT STOCK INCENTIVE PLAN

NON-STATUTORY STOCK OPTION AGREEMENT

This agreement (this "**Agreement**") evidences a stock option granted by the Company to the individual named above (the "**Optionee**"), pursuant to and subject to the terms of the Mersana Therapeutics, Inc. 2022 Inducement Stock Incentive Plan (as from time to time amended and in effect, the "**Plan**").

1. Meaning of Certain Terms. Except as otherwise defined herein, all capitalized terms used herein have the same meaning as in the Plan. The following terms have the following meanings:

(a) "**Beneficiary**": In the event of the Optionee's death, the beneficiary named in the written designation (in a form acceptable to the Administrator) most recently filed with the Administrator by the Optionee prior to the Optionee's death and not subsequently revoked, or, if there is no such designated beneficiary, the executor or administrator of the Optionee's estate. An effective beneficiary designation will be treated as having been revoked only upon receipt by the Administrator, prior to the Optionee's death, of an instrument of revocation in a form acceptable to the Administrator.

(b) "**Option Holder**": The Optionee or, if at the relevant time the Stock Option has passed to a Beneficiary, the Beneficiary.

2. Grant of Stock Option. In consideration of the employment services to be rendered to the Company by the Optionee and as an inducement material for the Optionee to enter into employment with the Company, the Company grants to the Optionee on the date set forth above (the "**Date of Grant**") an option (the "**Stock Option**") to purchase, pursuant to and subject to the terms set forth in this Agreement and in the Plan, up to the number of shares of Stock set forth above (the "**Shares**"), with an exercise price per Share as set forth above, in each case, subject to adjustment pursuant to Section 7 of the Plan in respect of transactions occurring after the date hereof.

The Stock Option evidenced by this Agreement is a non-statutory option (that is, an option that does not qualify as an incentive stock option under Section 422 of the Code) and is granted to the Optionee pursuant to the inducement grant exception under Nasdaq Stock Market Rule 5635(c)(4), as an inducement that is material to the Optionee's entering into employment with the Company.

3. Vesting; Method of Exercise; Cessation of Service.

(a) Vesting. The term "**vest**" as used herein with respect to the Stock Option or any portion thereof means to become exercisable and the term "**vested**" as applied to any outstanding Stock Option means that the Stock Option is then exercisable, subject, in each case, to the terms of the Plan. [Unless earlier terminated, forfeited, relinquished or expired, the Stock Option will vest as to 25% of the Shares underlying such Stock Option upon the first anniversary of the Vesting Commencement Date, and as to 6.25% of the Shares underlying such Stock Option on the last day of each three month period thereafter, in each case, with the number of Shares that vest on any such date being rounded down to

the nearest whole share and the Stock Option becoming vested as to 100% of the Shares on the fourth anniversary of the Vesting Commencement Date][1], subject, in each case, to the Optionee remaining in continuous Service from the date of this Agreement through such vesting date.

(b) Exercise of the Stock Option. No portion of the Stock Option may be exercised until such portion vests. Each election to exercise any vested portion of the Stock Option will be subject to the terms and conditions of the Plan and must be in written or electronic form acceptable to the Administrator, signed (including by electronic signature) by the Option Holder (or in such other form as is acceptable to the Administrator). Each such written or electronic exercise election must be received by the Company at its principal office or by such other party as the Administrator may prescribe and be accompanied by payment in full of the exercise price as provided in the Plan. The latest date on which the Stock Option or any portion thereof may be exercised is the 10th anniversary of the Date of Grant (the "**Final Exercise Date**") and, if not exercised by such date, the Stock Option or any remaining portion thereof will thereupon immediately terminate.

(c) Cessation of Service. If the Optionee's Service ceases, except as expressly provided for in an employment or other individual agreement between the Optionee and the Company or its Affiliate, the Stock Option, to the extent not already vested, will be immediately forfeited, and any vested portion of the Stock Option that is then outstanding will be treated as provided in the Plan.

4. Forfeiture; Recovery of Compensation.

(a) The Stock Option, and the proceeds from the exercise or disposition of the Stock Option or the Shares, will be subject to forfeiture and disgorgement to the Company, with interest and related earnings, if at any time the Optionee is not in compliance with all applicable provisions of this Agreement and the Plan.

(b) By accepting, or being deemed to have accepted, the Stock Option, the Optionee expressly acknowledges and agrees that his or her rights, and those of any permitted transferee of the Stock Option, under the Stock Option, including the right to any Stock acquired under the Stock Option or proceeds from the disposition thereof, are subject to Section 6(a)(4) of the Plan (including any successor provision). Nothing in the preceding sentence may be construed as limiting the general application of Section 8 of this Agreement.

5. Nontransferability. The Stock Option may not be transferred except as expressly permitted under Section 6(a)(2) of the Plan.

6. Withholding. The exercise of the Stock Option will give rise to "wages" subject to withholding. The Optionee expressly acknowledges and agrees that the Optionee's rights hereunder, including the right to be issued Shares upon exercise, are subject to the Optionee promptly paying to the Company in cash or by check (or by such other means as may be acceptable to the Administrator) all taxes required to be withheld. No Shares will be issued pursuant to the exercise of the Stock Option unless and until the person exercising the Stock Option has remitted to the Company an amount in cash sufficient to satisfy any federal, state, or local withholding tax requirements, or has made other arrangements satisfactory to the Company with respect to such taxes. The Optionee authorizes the Company and its subsidiaries to withhold such amount from any amounts otherwise owed to the Optionee, but nothing in this sentence may be construed as relieving the Optionee of any liability for satisfying his or her obligation under the preceding provisions of this Section.

7. Effect on Service. Neither the grant of the Stock Option, nor the issuance of Shares upon exercise of the Stock Option, will give the Optionee any right to be retained in the employ or service of the Company or any of its subsidiaries, affect the right of the Company or any of its subsidiaries to

[1] Vesting to be specified based on terms of grant.

terminate the Optionee's Service at any time, or affect any right of the Optionee to terminate his or her Service at any time.

8. Provisions of the Plan. This Agreement is subject in its entirety to the provisions of the Plan, which are incorporated herein by reference. A copy of the Plan as in effect on the Date of Grant has been furnished or made available to the Optionee. By accepting, or being deemed to have accepted, all or any part of the Stock Option, the Optionee agrees to be bound by the terms of the Plan and this Agreement. In the event of any conflict between the terms of this Agreement and the Plan, the terms of the Plan will control.

9. Acknowledgements. The Optionee acknowledges and agrees that (i) this Agreement may be executed in two or more counterparts, each of which will be an original and all of which together will constitute one and the same instrument, or, alternatively, may be acknowledged electronically in the Company's designated electronic equity management system, (ii) this Agreement may be executed and exchanged using facsimile, portable document format (PDF) or electronic signature, which, in each case, will constitute an original signature for all purposes hereunder, and (iii) such signature by the Company will be binding against the Company and will create a legally binding agreement when this Agreement is countersigned by the Optionee.

[Signature page follows.]

The Company, by its duly authorized officer, and the Optionee have executed this Agreement as of the Date of Grant.

MERSANA THERAPEUTICS, INC.
By: _____
Name: _____
Title: _____

Agreed and Accepted:
By _____
[Optionee's Name]

Exhibit 21.1

Subsidiaries of the Registrant

Entity	State of Incorporation or Organization
Mersana Securities Corp.	Massachusetts

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

(1) Registration Statement (Form S-3 No. 333-260895) of Mersana Therapeutics, Inc. and in the related Prospectus,
(2) Registration Statement (Form S-3 No. 333-238140) of Mersana Therapeutics, Inc. and in the related Prospectus,
(3) Registration Statement (Form S-8 No. 333-255975) pertaining to the Mersana Therapeutics, Inc. 2017 Stock Incentive Plan and Inducement Stock Option Awards,
(4) Registration Statement (Form S-8 No. 333-236775) pertaining to the Mersana Therapeutics, Inc. 2017 Stock Incentive Plan and the Mersana Therapeutics, Inc. 2017 Employee Stock Purchase Plan,
(5) Registration Statement (Form S-8 No. 333-230159) pertaining to the Mersana Therapeutics, Inc. 2017 Stock Incentive Plan and the Mersana Therapeutics, Inc. 2017 Employee Stock Purchase Plan,
(6) Registration Statement (Form S-8 No. 333-222845) pertaining to the Mersana Therapeutics, Inc. 2017 Stock Incentive Plan, and
(7) Registration Statement (Form S-8 No. 333-219388) pertaining to the Mersana Therapeutics, Inc. 2007 Stock Incentive Plan, as amended, the Mersana Therapeutics, Inc. 2017 Stock Incentive Plan and the Mersana Therapeutics, Inc. 2017 Employee Stock Purchase Plan;

of our report dated February 28, 2022, with respect to the consolidated financial statements of Mersana Therapeutics, Inc. and the effectiveness of internal control over financial reporting of Mersana Therapeutics, Inc. included in this Annual Report (Form 10-K) of Mersana Therapeutics, Inc. for the year ended December 31, 2021.

/s/ Ernst & Young LLP

Boston, Massachusetts
February 28, 2022

Exhibit 31.1

CERTIFICATIONS

I, Anna Protopapas, certify that:

1. I have reviewed this Annual Report on Form 10-K of Mersana Therapeutics, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report), that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 28, 2022

By: /s/ Anna Protopapas

Anna Protopapas
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATIONS

I, Brian DeSchuytner, certify that:

1. I have reviewed this Annual Report on Form 10-K of Mersana Therapeutics, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report), that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 28, 2022

By: /s/ Brian DeSchuytner

Brian DeSchuytner
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

CERTIFICATIONS OF CEO AND CFO PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with this Annual Report on Form 10-K of Mersana Therapeutics, Inc. (the "Company") for the year ended December 31, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned officers of the company, hereby certifies, pursuant to Section 1350 of Chapter 63 of Title 18, United States Code, that to the best of her or his knowledge:

(1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 28, 2022

By: /s/ Anna Protopapas

Anna Protopapas
President and Chief Executive Officer
(Principal Executive Officer)

Date: February 28, 2022

By: /s/ Brian DeSchuytner

Brian DeSchuytner
Chief Financial Officer
(Principal Financial Officer)