Table of Contents

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, 2017

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: 001-38068

ZYMEWORKS INC.

(Exact name of registrant as specified in its charter)

British Columbia, Canada	**47-2569713**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification Number)**

Suite 540—1385 West 8th Avenue
Vancouver, BC V6H 3V9
(Address of principal executive offices, including zip code)

Registrant's telephone number, including area code: (604) 678-1388

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

Title of each class	Name of each exchange on which registered
Common Shares, no par value per share	**New York Stock Exchange**

Securities registered pursuant to Section 12(g) of the Act: None

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

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

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes ☐ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

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 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	☒ (Do not check if a smaller reporting company)	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 is a shell company (as defined in Rule 12b-2 of the Securities Exchange Act of 1934). Yes ☐ No ☒

The aggregate market value of the voting and non-voting common shares held by non-affiliates of the registrant, based on the closing sale price of the registrant's common shares on the last business day of its most recently completed second fiscal quarter, as reported on the NYSE was approximately $148.8 million.

The number of outstanding common shares of the registrant, no par value per share, as of March 12, 2018 was 25,461,460

DOCUMENTS INCORPORATED BY REFERENCE

Not applicable

ZYMEWORKS INC.

FORM 10-K

For the Fiscal Year Ended December 31, 2017

Table of Contents

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K includes “forward-looking statements” within the meaning of the U.S Private Securities Litigation Reform Act of 1995 and “forward-looking information” within the meaning of Canadian securities laws, or collectively, forward-looking statements. Forward-looking statements include statements that may relate to our plans, objectives, goals, strategies, future events, future revenue or performance, capital expenditures, financing needs and other information that is not historical information. Many of these statements appear, in particular, under the headings “Business,” “Risk Factors,” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations”. Forward-looking statements can often be identified by the use of terminology such as “subject to”, “believe,” “anticipate,” “plan,” “expect,” “intend,” “estimate,” “project,” “may,” “will,” “should,” “would,” “could,” “can,” the negatives thereof, variations thereon and similar expressions, or by discussions of strategy. In addition, any statements or information that refer to expectations, beliefs, plans, projections, objectives, performance or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking. In particular, these forward-looking statements include, but are not limited to:

- the size of our addressable markets and our ability to commercialize product candidates;
- the achievement of advances in and expansion of our therapeutic platforms and antibody engineering expertise;
- the likelihood of product candidate development and clinical trial progression, initiation or success; and
- our ability to predict and manage government regulation.

All forward-looking statements, including, without limitation, our examination of historical operating trends, are based upon our current expectations and various assumptions. Certain assumptions made in preparing the forward-looking statements include:

- our ability to manage our growth effectively;
- the absence of material adverse changes in our industry or the global economy;
- trends in our industry and markets;
- our ability to maintain good business relationships with our strategic partners;
- our ability to comply with current and future regulatory standards;
- our ability to protect our intellectual property rights;
- our continued compliance with third-party license terms and the non-infringement of third-party intellectual property rights;
- our ability to manage and integrate acquisitions;
- our ability to retain key personnel; and
- our ability to raise sufficient debt or equity financing to support our continued growth.

We believe there is a reasonable basis for our expectations and beliefs, but they are inherently uncertain. We may not realize our expectations, and our beliefs may not prove correct. Actual results could differ materially from those described or implied by such forward-looking statements. The following uncertainties and factors, among others (including those set forth under “Risk Factors”), could affect future performance and cause actual results to differ materially from those matters expressed in or implied by forward-looking statements:

- our ability to obtain regulatory approval for our product candidates without significant delays;
- the predictive value of our current or planned clinical trials;
- delays with respect to the development and commercialization of our product candidates, which may cause increased costs or delay receipt of product revenue;
- our ability to enroll subjects in clinical trials and thereby complete trials on a timely basis;
- the design or our execution of clinical trials may not support regulatory approval;
- our discretion to discontinue or reprioritize the development of any of our product candidates;
- the potential for our product candidates to have undesirable side effects;
- our ability to face significant competition;
- no regulatory agency has made a determination that any of our product candidates are safe or effective for use by the general public or for any indication;
- the competitive threat of biosimilar products;
- the likelihood of broad market acceptance of our product candidates;
- our ability to obtain Orphan Drug Designation or exclusivity for some or all of our product candidates;
- our ability to commercialize products outside of the United States;
- the outcome of reimbursement decisions by third-party payors relating to our products;
- our expectations with respect to the market opportunities for any product that we or our strategic partners develop;
- our ability to pursue product candidates that may be profitable or have a high likelihood of success;
- our ability to use and expand our therapeutic platforms to build a pipeline of product candidates;
- our ability to meet the requirements of ongoing regulatory review;
- the threat of product liability lawsuits against us or any of our strategic partners;
- changes in product candidate manufacturing or formulation that may result in additional costs or delay;
- the potential disruption of our business and dilution of our shareholdings associated with acquisitions and joint ventures;
- our ability to maintain existing and future strategic partnerships;
- our ability to realize the anticipated benefits of our strategic partnerships;

- our ability to secure future strategic partners;
- the potential for foreign governments to impose strict price controls;
- the risk of security breaches or data loss, which could compromise sensitive business or health information;
- current and future legislation that may increase the difficulty and cost of commercializing our product candidates;
- economic, political, regulatory and other risks associated with international operations;
- our exposure to legal and reputational penalties as a result of any of our current and future relationships with various third parties;
- our exposure to potential securities class action litigation;
- our ability to comply with export control and import laws and regulations;
- our history of significant losses since inception;
- our ability to generate revenue from product sales and achieve profitability;
- our requirement for substantial additional funding;
- the potential dilution to our shareholders associated with future financings;
- unstable market and economic conditions;
- currency fluctuations and changes in foreign currency exchange rates;
- restrictions on our ability to seek financing, which may be imposed by future debt;
- our intention to rely on third-party manufacturers to produce our clinical product candidate supplies;
- our reliance on third parties to oversee clinical trials of our product candidates and, in some cases, maintain regulatory files for those product candidates;
- our reliance on the performance of independent clinical investigators and contract research organizations (CRO);
- our reliance on third parties for various operational and administrative aspects of our business including our reliance on third parties' cloud-based software platforms;
- our ability to operate without infringing the patents and other proprietary rights of third parties;
- our ability to obtain and enforce patent protection for our product candidates and related technology;
- our patents could be found invalid or unenforceable if challenged;
- our intellectual property rights may not necessarily provide us with competitive advantages;
- we may become involved in expensive and time-consuming patent lawsuits;

- we may be unable to protect the confidentiality of our proprietary information;
- the risk that the duration of our patents will not adequately protect our competitive position;
- our ability to obtain protection under the Hatch-Waxman Amendments and similar foreign legislation;
- our ability to comply with procedural and administrative requirements relating to our patents;
- the risk of claims challenging the inventorship of our patents and other intellectual property;
- our intellectual property rights for some of our product candidates are dependent on the abilities of third parties to assert and defend such rights;
- patent reform legislation and court decisions can diminish the value of patents in general, thereby impairing our ability to protect our products;
- we may not be able to protect our intellectual property rights throughout the world;
- we will require FDA approval for any proposed product candidate names and any failure or delay associated with such approval may adversely affect our business;
- the risk of employee misconduct including noncompliance with regulatory standards and insider trading;
- our ability to market our products in a manner that does not violate the law and subject us to civil or criminal penalties;
- if we do not comply with laws regulating the protection of the environment and health and human safety, our business could be adversely affected;
- if securities or industry analysts do not publish research or publish inaccurate or unfavorable research about our business, our share price and trading volume could decline;
- our ability to retain key executives and attract and retain qualified personnel;
- our ability to manage organizational growth; and
- additional costs and expenses related to the anticipated change from foreign private issuer to U.S. domestic issuer status and our decision to voluntarily comply with certain U.S. domestic issuer reporting obligations before we are required to do so.

Consequently, forward-looking statements should be regarded solely as our current plans, estimates and beliefs. You should not place undue reliance on forward-looking statements. We cannot guarantee future results, events, levels of activity, performance or achievements. We do not undertake and specifically decline any obligation to update, republish or revise forward-looking statements to reflect future events or circumstances or to reflect the occurrences of unanticipated events, except as required by law.

We own or have rights to trademarks, service marks or trade names that we use in connection with the operation of our business. In addition, our names, logos and website names and addresses are our service marks or trademarks. Azymetric, Zymeworks, ZymeCAD and the phrase “Building Better Biologics” are our registered trademarks. Additionally, AlbuCORE, EFECT and ZymeLink are subject to our pending trademark applications. The other trademarks, trade names and service marks appearing in this Annual Report on Form 10-K are the property of their respective owners. Solely for convenience, the trademarks, service marks, tradenames and copyrights referred to in this Annual Report on Form 10-K are listed without the ©, ® and TM symbols, but we will assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensors to these trademarks, service marks and tradenames.

We express all amounts in this Annual Report on Form 10-K in U.S. dollars, except where otherwise indicated. References to “$” and “US$” are to U.S. dollars and references to “C$” are to Canadian dollars.

Except as otherwise indicated, references in this Annual Report on Form 10-K to “Zymeworks,” “the Company,” “we,” “us” and “our” refer to Zymeworks Inc. and its consolidated subsidiaries.

PART I

Item 1. Business

Overview

Zymeworks is an innovative, clinical-stage biopharmaceutical company dedicated to the discovery, development and commercialization of next-generation multifunctional biotherapeutics. Our suite of complementary therapeutic platforms and our fully integrated drug development engine provide the flexibility and compatibility to precisely engineer and develop highly differentiated product candidates. These capabilities have resulted in multiple wholly owned product candidates with the potential to drive superior outcomes in large underserved and unaddressed patient populations, as further described below.

Our lead product candidate, ZW25, is a novel bispecific (dual-targeting) antibody which targets two distinct domains of the human epidermal growth factor receptor 2, or HER2. In our adaptive Phase 1 clinical trial, ZW25 has been well tolerated with promising single agent anti-tumor activity in patients with heavily pretreated HER2-expressing cancers that have progressed after standard of care, including multiple HER2-targeted regimens. Its unique design may enable ZW25 to address patient populations with all levels of HER2 expression, including those with low to intermediate HER2-expressing tumors, who are otherwise limited to chemotherapy or hormone therapy. Approximately 81% of patients with HER2-expressing breast cancer and 57% of patients with HER2-expressing gastric and gastroesophageal junction cancer have tumors that express low to intermediate levels of HER2, making them ineligible for treatment with currently approved HER2-targeted therapies, such as Herceptin and Perjeta, which generated combined sales of $9.5 billion in 2017. Our second product candidate, ZW49, capitalizes on the unique design of ZW25 and is a bispecific antibody-drug conjugate, or ADC, based on the same antibody framework as ZW25 but armed with our proprietary ZymeLink-cytotoxic (potent cancer cell-killing) payload. ZW49 is being advanced in lieu of our prior product candidate, ZW33, based on ZW49's superior therapeutic window (range of doses that are both efficacious and tolerable) and proprietary linker and cytotoxic payload. We designed ZW49 to be a best-in-class HER2-targeting ADC for several indications characterized by HER2 expression, for which we expect to file an Investigational New Drug, or IND, application in 2018. We are also advancing a deep pipeline of preclinical product candidates and discovery-stage programs in immuno-oncology and other therapeutic areas. In addition to our wholly owned pipeline, two of our therapeutic platforms have been further leveraged through multiple revenue-generating strategic partnerships with the following global pharmaceutical companies: Merck Sharp & Dohme Research GmbH ("Merck"), Eli Lilly and Company ("Lilly"), Celgene Corporation and Celgene Alpine Investment Co. LLC ("Celgene"), GlaxoSmithKline Intellectual Property Development Limited ("GSK"), Daiichi Sankyo Co., Ltd. ("Daiichi Sankyo") and Janssen Biotech, Inc. ("Janssen").

Our proprietary capabilities and technologies include four modular, complementary therapeutic platforms that can be easily used in combination with each other and with existing approaches. This ability to layer technologies without compromising manufacturability enables us to engineer next-generation biotherapeutics with synergistic activity, which we believe will result in superior patient outcomes. Our core platforms include:

- ***Azymetric***, our bispecific platform, which enables therapeutic antibodies to bind two distinct locations on a target, known as epitopes. This is achieved by tailoring multiple configurations of the antibody's Fab regions (locations on the antibody to which epitopes bind);
- ***ZymeLink,*** our ADC platform which comprises multiple cytotoxic payloads and the linker technology used to couple these payloads to tumor-targeting antibodies or proteins. This platform can be used in conjunction with our other therapeutic platforms to increase safety and efficacy as compared to existing ADC technologies;
- ***EFECT,*** which enables finely tuned modulation (both up and down) of immune cell recruitment and function; and

- ***AlbuCORE,*** our antibody-alternative platform, which augments the properties of naturally occurring human serum albumin, or HSA, with multivalent (multi-targeted) binding to enable complex mechanisms of action that are not amenable to antibody-based approaches.

Our protein engineering expertise and proprietary structure-guided molecular modeling capabilities enable these therapeutic platforms. Together with our internal antibody discovery and generation technologies, we have established a fully integrated drug development engine and toolkit that is capable of rapidly delivering a steady pipeline of next-generation product candidates in oncology and other therapeutic areas.

Our lead product candidate, ZW25, is an Azymetric bispecific antibody, which simultaneously binds two non-overlapping epitopes of HER2 resulting in dual HER2 signal blockade and increased tumor cell binding, immune cell recruitment and HER2 receptor downregulation as compared to existing HER2-targeted therapies. In our adaptive Phase 1 clinical trial, ZW25 has been well tolerated with promising single agent anti-tumor activity in patients with heavily pretreated HER2-expressing cancers that have progressed after standard of care treatment, including multiple HER2-targeted regimens. These data were highlighted at several medical conferences in 2017, including the annual meetings of the American Society of Clinical Oncology, or ASCO, the European Society for Medical Oncology, or ESMO, and the San Antonio Breast Cancer Symposium, or SABCS. The U.S. Food and Drug Administration, or FDA, has granted Orphan Drug Designation to ZW25 for the treatment of gastric and ovarian cancer. Our second product candidate, ZW49, is a bispecific anti-HER2 ADC that is based on the same antibody framework as ZW25, but is armed with our proprietary ZymeLink cytotoxic payload. We will continue to focus on advancing multiple well-differentiated product candidates into clinical trials to build our pipeline portfolio as well as exploiting our protein engineering expertise to develop innovative therapeutic platforms.

Our unique combination of proprietary protein engineering capabilities and resulting therapeutic platform technologies was initially recognized by Merck and Lilly, with whom we established strategic partnerships focused on our Azymetric and EFECT therapeutic platforms. We subsequently entered into broader strategic partnerships with Celgene and GSK, followed by a collaboration and cross-licensing agreement with Daiichi Sankyo. During the initial partnerships with Merck, Lilly and GSK, the relationships were expanded to include either additional licenses or therapeutic platforms. Most recently, we executed a licensing and collaboration agreement with Janssen to develop and commercialize next-generation bispecific antibody therapeutics. These relationships provide our strategic partners with access to components of our proprietary Azymetric and EFECT therapeutic platforms for their development of a defined number of protein therapeutics on a predominantly non-target-exclusive basis. Importantly, these strategic partnerships have provided Zymeworks with non-dilutive funding as well as access to proprietary therapeutic assets, which increase our ability to rapidly advance our product candidates while maintaining worldwide commercial rights to our wholly owned therapeutic pipeline.

The mission that unites everyone at Zymeworks is to create biotherapeutics that allow patients to return home to their loved ones, disease free. We intend to advance the development of disruptive therapeutic platforms and impactful biotherapeutics, especially in areas of unmet need. We believe we are well-positioned to deliver on our mission.

Segment Financial Information

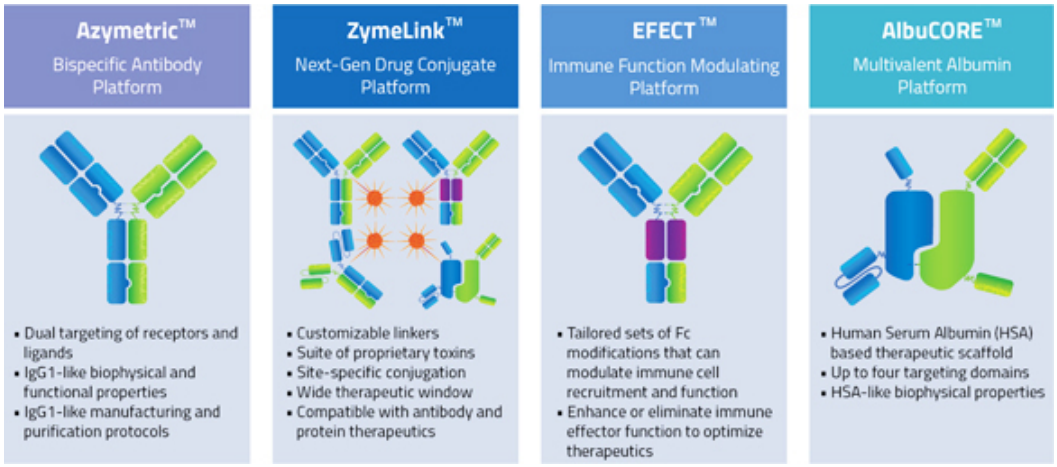
The Company currently operates in one operating segment. Operating segments are defined as components of an enterprise about which separate discrete information is available for the chief operating decision maker (CODM), or decision-making group, deciding how to allocate resources and assessing performance. The Company operates and manages its business in one segment, which is the discovery, development and commercialization of next-generation biotherapeutics.

Overview of our Proprietary Therapeutic Platforms

Our expertise in protein engineering has enabled the development of our proprietary therapeutic platforms, a complementary suite of highly tailored biologics solutions. Our therapeutic platforms can be used alone, or in combination, with synergistic activity to develop multifunctional fit-for-purpose biotherapeutics with bispecific capabilities (Azymetric), cytotoxic payload delivery (ZymeLink), finely tuned immune function modulation (EFECT) and multivalent targeting (AlbuCORE). The modular design and ease of use of our therapeutic platforms allow for the design and evaluation of multiple candidates with different formats to determine the optimal therapeutic combination early in development. We continue to leverage these therapeutic platforms to expand our pipeline of next-generation biotherapeutics that we believe could represent significant improvements to the standard of care in multiple cancer types.

We believe our in-house biologics design and engineering capabilities confer significant competitive advantages to our therapeutic platforms and are ultimately reflected in our programs. Some of these key advantages are:

- ***Highly modular and customizable.*** Our platforms can be combined in multiple ways and this capability has achieved synergistic results in preclinical studies. For example, our ZymeLink platform enables the attachment of cytotoxic payloads to the candidates in any of our other platforms to create enhanced therapeutics, such as ADCs. These capabilities allow us to finely tune characteristics such as tumor-killing potential, target specificity and immune cell engagement, and expand our ability to engineer superior drugs against multiple cancers.
- ***Fit-for-purpose.*** Our platforms can also be utilized to engineer biotherapeutics that are tailored for the particular target and disease state. For example, Azymetric bispecifics can be developed with multiple antigen binding formats to provide specific engagement geometry for a given target. This allows us to identify the targets and diseases that we wish to exploit and then engineer an optimized biotherapeutic to maximize therapeutic effect. We believe this method of deliberate drug development is a more effective and efficient mechanism for the creation of next-generation biotherapeutics.
- ***Consistent with native (Antibody or Albumin) formats.*** Our antibody platforms are differentiated from our competitors and have been engineered to retain the desirable biophysical characteristics of native antibody (Immunoglobulin, or IgG) formats such as a low risk of provoking an adverse anti-drug immune response, or immunogenicity, superior pharmacokinetics, the ability to beneficially recruit the immune system through effector function, and ease of manufacturing and purification. Likewise, our AlbuCORE platform builds on native HSA, and exploits the natural accumulation of albumin in tumors which we believe may lead to enhanced targeting of the tumor.
- ***Readily scalable and transferable.*** Our in-house biologics design and engineering expertise and infrastructure is positioned to create a steady stream of product candidates that are scalable, efficient to manufacture (by us, a partner or contract manufacturing organization), and naturally endorse favorable characteristics such as high production and purity levels. We believe this is a significant competitive advantage given the historical challenges faced by others in the field who manufacture complex biologics, such as bispecifics and ADCs.



Azymetric Bispecific Antibody Platform

The Azymetric platform consists of a library of proprietary amino acid substitutions that enable the transformation of monospecific antibodies into bispecific antibodies, which gives them the ability to simultaneously bind two non-overlapping epitopes. Azymetric bispecific technology enables the development of biotherapeutics with dual-targeting of receptors/ligands and simultaneous blockade of multiple signaling pathways, increasing tumor-specific targeting and efficacy while reducing toxicities and the potential for drug resistance. In preclinical studies, the dual-targeting of Azymetric antibodies has demonstrated synergistic activity relative to the application of an equivalent dose of the corresponding monospecific antibodies. Azymetric bispecifics can also be engineered to enhance internalization of the antibody into the tumor cell and consequently increase the delivery of cytotoxic payloads.

First-generation bispecific platforms significantly alter the structure of monoclonal antibodies or rely upon complex and proprietary manufacturing processes. Azymetric bispecifics, in contrast, retain the desirable drug-like qualities of monoclonal antibodies, including long half-life, stability and low immunogenic potential, which increases their probability of success. Azymetric bispecifics are also compatible with standard manufacturing processes with high production yields and purity, which accelerates manufacturing timelines and reduces costs.

ZymeLink Conjugation Platform and Cytotoxins

The ZymeLink conjugation platform is a suite of novel site-specific protein coupling technologies and customizable cleavable linkers that allow for the delivery of our proprietary cytotoxic payloads, which can be applied to all of our antibody and albumin-based therapeutic platforms. We believe that ZymeLink provides multiple competitive advantages over existing approaches, including optimized activity and tolerability profiles through increased drug delivery to target cells with reduced off-target effects, product homogeneity, preservation of immune cell interaction and stable pharmacokinetics.

EFECT Antibody Effector Function Modulation Platform

The EFECT platform comprises sets of modifications to the crystallizable fragment, or Fc, region of antibodies that enable the selective modulation of recruited cytotoxic immune cells for diverse therapeutic applications. This allows us to rationally tailor the selective enhancement or elimination of immune effector function to optimize product candidates.

AlbuCORE Multispecific Antibody-Alternative Platform

The AlbuCORE platform is a novel and proprietary suite of multivalent scaffolds engineered from the HSA backbone from which therapeutics can be developed. This platform is highly flexible and enables the addition of up to four customized targeting domains, which allows for additional tumor specificity and synergistic activity as well as an increase in the affinity and selectivity for a desired target. The resulting superstructure naturally accumulates in tumor microenvironments or areas of inflammation, and benefits from several attractive attributes of HSA, including superior pharmacokinetics and stability. Additionally, these AlbuCORE constructs possess standard manufacturing and purification protocols compatible with industry-standard conjugation technologies, which accelerate the manufacturing process, while reducing costs.

Product Candidate Pipeline and Advanced Preclinical and Discovery Programs

We currently have one wholly owned product candidate in clinical development and several wholly owned product candidates in preclinical development that leverage our multiple therapeutic platforms to address areas of significant unmet medical need. We define our programs as "lead product candidates" when they initiate IND-enabling studies and as "preclinical stage programs" when lead molecules have been identified and demonstrate activity in biological models. Our lead product candidates, ZW25 and ZW49, utilize our Azymetric bispecific platform to address patient populations with all levels of HER2 expression, including those with low to intermediate HER2-expressing tumors, and are described in detail below. We are also actively advancing a diverse set of preclinical and discovery programs, which leverage one or more of our proprietary therapeutic platforms to create multifunctional biotherapeutics for several solid tumor indications. Our bispecific ADC programs utilize the Azymetric, EFECT and ZymeLink platforms and have demonstrated potent anti-tumor activity in preclinical studies with the potential for an enhanced therapeutic window. Our most advanced T cell-engaging bispecific program leverages the Azymetric and EFECT platforms combined with our proprietary protein engineering expertise, which results in potent anti-tumor activity and reduced toxicity in preclinical studies. We are also developing several checkpoint-modulating bispecifics for immuno-oncology and other therapeutic areas to create a deep pipeline of well-differentiated product candidates. The table below summarizes our current product candidate pipeline.

Programs	Enabling Platform(s)	Indication(s)	Status: DISCOVERY / PRECLINICAL / PHASE 1 / PHASE 2 / WORLDWIDE COMMERCIAL RIGHTS
LEAD PRODUCT CANDIDATES			
ZW25 HER2 x HER2 Bispecific	Azymetric™	Breast, Gastric, & Other HER2-Expressing Cancers	zymeworks
ZW49 HER2 x HER2 Bispecific ADC	Azymetric™ ZymeLink™	HER2-Expressing Cancers	zymeworks

The table below summarizes the therapeutic class of our preclinical and advanced discovery programs.

PRECLINICAL AND ADVANCED DISCOVERY PROGRAMS			
Bispecific ADCs	Azymetric™, EFECT™ ZymeLink™	Solid Tumors	zymeworks
T Cell Engaging Bispecifics	Azymetric™ EFECT™	Solid Tumors	zymeworks
Checkpoint – Modulating Bispecifics	Azymetric™ EFECT™	Solid Tumors	zymeworks

The table below summarizes the stage of each our partners' most advanced publically disclosed program.

PARTNERSHIPS			
Bispecific	Azymetric™	Immuno-Oncology	Lilly
Bispecific	Azymetric™, EFECT™	Not Disclosed	MERCK
Bispecific	Azymetric™	Not Disclosed	Celgene
Bispecific	Azymetric™, EFECT™	Not Disclosed	gsk
Bispecific	Azymetric™, EFECT™	Immuno-Oncology	
Bispecific	Azymetric™, EFECT™	Not Disclosed	Johnson & Johnson

- ***ZW25*** is our lead product candidate currently being evaluated in an adaptive Phase 1 clinical trial in the United States, based on our Azymetric platform. It is a bispecific antibody that can simultaneously bind two non-overlapping epitopes, known as biparatopic binding, of HER2 resulting in dual HER2 signal blockade, increased binding and removal of HER2 protein from the cell surface, and enhanced effector function. These combined mechanisms of action have led to significant anti-tumor activity in preclinical models of breast cancer, including trastuzumab (currently branded as Herceptin) resistant high HER2-expressing tumors, as well as in tumors with lower levels of HER2 expression. Approximately 81% of patients with HER2-expressing breast cancer and 57% of patients with HER2-expressing gastric and gastroesophageal junction cancer have tumors that express low to intermediate levels of HER2, making them ineligible for treatment with currently approved HER2-targeted therapies, such as Herceptin and Perjeta. In the United States and EU5 (France, Germany, Italy, Spain and the United Kingdom) alone, approximately 408,000 and 50,000 patients are diagnosed with HER2-expressing breast and gastroesophageal cancer, respectively, every year. In addition, multiple other cancers, including ovarian, bladder, colorectal and non-small cell lung cancer, or NSCLC, also express HER2 at varying levels. Therefore, there is a significant unmet need for HER2-targeted agents that can effectively treat these patients.

  We are developing ZW25 as a best-in-class HER2-targeting antibody intended as a treatment option for patients with any solid tumor that expresses HER2. Our initial focus is on the treatment of patients with breast or gastric cancers that have progressed after treatment with HER2-targeted therapies or that are not eligible for approved HER2-targeted therapies based on low to intermediate levels of HER2 expression. We then intend to develop ZW25 for other HER2-expressing cancers. ZW25 has been granted Orphan Drug Designation for the treatment of both gastric and ovarian cancer by the FDA. In our Phase 1 clinical trial, ZW25 has been well tolerated with promising single agent anti-tumor activity in patients with heavily pretreated HER2-expressing cancers that have progressed after standard of care treatment, including multiple HER2-targeted regimens.
- ***ZW49*** is a biparatopic anti-HER2 ADC that is based on the same antibody framework as ZW25 and its predecessor product candidate, ZW33, and takes advantage of high levels of ZW25's antibody-targeted internalization to deliver our proprietary ZymeLink cytotoxic payload. ZW49 and ZW33 were being developed in parallel; however, we made the strategic decision to advance ZW49 as a lead product candidate in lieu of ZW33 based on ZW49's superior therapeutic window attributable to its use of our proprietary ZymeLink ADC platform. We are developing ZW49 as a best-in-class HER2-targeting ADC for several indications characterized by HER2 expression, especially for patients whose tumors have progressed or are refractory to HER2-targeted agents and those that express lower levels of HER2 and are ineligible for treatment with HER2-targeted therapies including Kadcyla. We plan on filing an IND application for ZW49 in 2018.

Our Strategy

Our goal is to leverage our next-generation therapeutic platforms and proprietary protein engineering capabilities to become a domain dominator in the discovery, development and commercialization of best-in-class multifunctional biotherapeutics for the treatment of cancer and other diseases with high unmet medical need.

Our key strategies to achieve this goal are to:

- ***Aggressively advance our lead product candidate, ZW25, through the clinic in multiple HER2-expressing tumor types.*** We plan to pursue the most rapid path possible to advance ZW25 through clinical trials and towards commercialization. We believe ZW25 is best positioned to initially treat patients with high HER2-expressing breast or gastric cancers that have progressed after treatment with HER2-targeted therapies, such as Herceptin and Perjeta, or that are not eligible for approved HER2-targeted therapies based on low to intermediate levels of HER2 expression. A first-in-human Phase 1 clinical trial for ZW25 commenced in September 2016 and consists of three segments. We have completed the dose escalation segment (Part 1) and enrollment is underway for Part 2 of the study in which ZW25 will be administered every other week at 20 mg/kg in five expansion cohorts that will span HER2 High breast, HER2 High gastric, HER2 Intermediate breast, HER2 Intermediate gastric and other HER2 gene amplified cancers to evaluate ZW25 as both a monotherapy (Part 2) and in combination with standard of care therapy (Part 3). In our Phase 1 clinical trial, ZW25 has been well tolerated with promising single agent anti-tumor activity in patients with HER2-expressing cancer that have progressed after standard of care, including multiple HER2-targeted regimens.

- ***Pursue a rapid and multi-faceted development strategy for our novel and highly differentiated pipeline into clinical trials across many oncology indications with a critically high unmet medical need.*** Our second product candidate, ZW49, is a bispecific ADC that capitalizes on the unique design of ZW25 and is armed with our proprietary ZymeLink cytoxic payload. We are able to realize significant cost and time savings for ZW49 relative to other bispecifics by leveraging the same antibody manufacturing processes as well as insights related to the safety, pharmacokinetics, immunogenicity and anti-tumor activity data generated for ZW25 in both the preclinical and clinical setting since they share an identical bispecific antibody backbone. The planned clinical trials will be designed to determine the maximum tolerated dose in the dose escalation phase before exploring safety and anti-tumor activity in patients whose tumors express all levels of HER2, including those with low to intermediate HER2-expression, that are not eligible for treatment with HER2-targeted therapies. Our subsequent clinical product candidates will be chosen from a diverse set of programs that we are aggressively advancing through preclinical development in several oncology indications with significant unmet need. These product candidates leverage both novel and well-validated targets and take advantage of one or more of our proprietary therapeutic platforms, which we believe results in a deep pipeline of next-generation multifunctional biotherapeutics.
- ***Leverage our therapeutic platforms and proprietary protein engineering capabilities to continue to discover and develop additional novel product candidates.*** We will continue to exploit the advantages of our therapeutic platforms to discover and develop novel product candidates with a focus on leveraging our Azymetric, ZymeLink, EFECT and AlbuCORE platforms for generating bispecific and multifunctional antibody therapeutics, drug conjugates and multispecific antibody alternatives. We are currently evaluating a number of disease targets, therapeutic candidates and cytotoxic payloads with the aim of advancing a steady pipeline of next-generation product candidates from discovery and preclinical research into clinical trials.
- ***Leverage our strategic partnerships, while pursuing additional collaborations that can augment the power of our platforms and value of our pipeline.*** We will continue to work closely with our strategic partners to help advance multiple programs developed using our therapeutic platforms. These strategic partnerships underscore the strengths of our therapeutic platforms, provide non-dilutive funding, broaden the scope of development efforts and have the potential to provide clinical validation. We plan to opportunistically enter into additional or expanded strategic relationships with top-tier biopharmaceutical companies, including retaining key geographic and commercial rights, particularly in disease areas not currently being pursued by us or by our current strategic partners.
- ***Continue to develop innovative therapeutic platforms and expand our therapeutic focus into logical areas such as autoimmunity and inflammatory diseases.*** We plan to advance novel first-in-class product candidates and to continue to develop next-generation therapeutic platforms through our in-house research and development activities.

Background

Immune System and Antibodies

The immune system detects and defends organisms from invading pathogens, and identifies and eliminates aberrant cells. It is comprised of two subsystems: the innate and adaptive immune systems. The innate immune system mounts non-specific responses to conserved pathogen-associated molecular patterns and to alarm signals released by pathogen-infected cells. Key components of the innate immune system include:

- cytokines and chemokines, which are small signaling proteins that allow immune cells to communicate with one another and regulate cell movement towards a site of inflammation or infection;
- the complement pathway, which is a system of interacting proteins that coat pathogens, mark them for destruction and induce inflammatory responses;
- macrophages, which are cells that ingest and destroy foreign materials;
- neutrophils, which are cells that ingest and destroy microorganisms and are also capable of releasing enzymes that kill microorganisms; and
- natural killer, or NK, cells, which recognize and lyse pathogenic cells.

In contrast to innate immunity, the adaptive immune system mounts highly specific responses against non-self molecules, or antigens, and can be activated by the innate immune system. Key components of the adaptive immune system include:

- B cells, which generate unique antibodies targeting intact extracellular antigens;
- helper T cells, which stimulate B cells to divide, differentiate and secrete antibodies in response to peptide antigens processed from extracellular proteins presented by other immune cells; and
- cytotoxic T cells, which destroy infected or cancerous cells presenting peptide antigens processed from intracellular proteins.

Oncology Overview and Next-Generation Therapy

Cancer treatment depends on multiple factors, including the type, stage and degree of localization of the cancer. Small, localized tumors can often be effectively treated by surgery and radiation, and supplemental, or adjuvant, drugs are commonly administered in this setting. Patients with primary tumors that cannot be removed or which have metastasized beyond the primary site are typically treated with systemically delivered drugs, such as chemotherapy.

Chemotherapy

Cytotoxic chemotherapeutic agents were the first type of systemic drug treatment developed for cancer and many remain in use today. These drugs typically act by disrupting cellular metabolism, division and mobility, which are required for tumor growth, invasion and metastasis. Tumors are more sensitive to chemotherapeutic agents than normal cells by virtue of their accelerated proliferation rates. However, chemotherapy also kills normal cells, particularly those that naturally grow and divide rapidly, such as those in the gastrointestinal tract. Because of this toxicity, these agents are typically administered in a limited range of doses within which tumors can be eliminated while minimizing toxic side effects, resulting in a narrow therapeutic window. As a result, chemotherapeutic agents are not always effective in eradicating cancer cells at doses low enough to avoid potentially fatal toxic damage.

Targeted Therapies

To address the broad toxicity of systemic chemotherapy, researchers have developed targeted therapies that interfere with the specific molecules that drive the rapid growth of cancer cells and lead to metastasis, or which can re-engage the immune system to combat cancer. While each patient’s cancer is characterized by a unique combination of genetic mutations, many of these changes are common across many cancers. These common genetic changes are targeted by newer targeted therapies that discriminate cancerous from normal cells, often leading to superior tolerability and broader therapeutic windows compared to chemotherapy. The three most common classes of targeted therapies are as follows:

Small Molecules

Small molecule therapeutics are chemical compounds that generally interfere with the intracellular signaling of tyrosine kinases. Tyrosine kinase signaling regulates cell growth, proliferation, migration and new blood vessel formation, or angiogenesis, of tumors. Blocking these signals slows the growth of tumors. Small molecule therapeutics, due to their small size and the weaker binding of targets, are generally less specific and more toxic than biologics.

First-Generation Biologics

Most biologics used as cancer therapies are monoclonal antibodies directed against tumor cell surface antigens, though this class of therapeutics also includes vaccines, cytokines and receptor fusion proteins. Due to their high degree of target specificity, monoclonal antibodies also offer the unique ability to target tumor-selective antigens, while minimizing off-target side effects. In oncology, first-generation biologics were generally used for growth-signal neutralization through ligand or receptor blockade or degradation such as Herceptin or Perjeta for the HER2 receptor and Erbitux for the epidermal growth factor receptor, or EGFR.

Second-Generation Biologics

Second-generation biologics were designed to further increase efficacy and reduce toxicity of targeted cancer therapies. In some instances, the domain of a monoclonal antibody was engineered to enhance therapeutic efficacy, or the Fab domains were engineered to improve target antigen affinity and specificity. In addition, small molecules or cytokines could be conjugated to antibodies to precisely deliver toxic payloads specifically to tumors. Antibodies could also be engineered such that they simultaneously engaged multiple different antigens (i.e., bispecific antibodies) and induced biological effects previously unattainable with first-generation monoclonal antibodies. This resulted in biologics often being the preferred treatment option for many cancers given their higher efficacy and safety profile as well as longer serum exposure in comparison to small molecules.

Zymeworks' Next-Generation Biologics

Small molecule therapeutics and biologics have led to improvements in patient outcomes compared to chemotherapies. However, some patients acquire resistance, become refractory to, or cannot tolerate the increased toxicity of these treatments. Importantly, these treatments often only delay disease progression and do not induce durable cancer remission. As a result, there is a need for new therapies with improved, long-lasting efficacy and reduced toxicity. We believe the future of oncology will be defined by multifunctional therapeutics specifically designed to act through several synergistic mechanisms of action to enhance efficacy, overcome resistance and minimize side effects. Furthermore, we believe our proprietary protein engineering capabilities and our integrated biologics discovery engine uniquely enable us to develop the next generation of biotherapeutics, including bispecific and multifunctional antibodies, immune engagers, ADCs and other proprietary protein formats to help address this treatment gap. Our suite of proprietary therapeutic platforms uniquely allows us to utilize all of the above approaches in our mission to allow patients to return home to their loved ones, disease free.

Zymeworks' Competitive Advantage: Proprietary Therapeutic Platforms

Our expertise in protein engineering has enabled the development of our next-generation therapeutic platforms, a suite of complementary and highly tailored biologics solutions. Our therapeutic platforms can be used alone or in combination with synergistic activity to develop fit for purpose biotherapeutics with bispecific capabilities (Azymetric), cytotoxic payload delivery (ZymeLink), finely tuned immune cell regulation (EFECT) and multivalent targeting (AlbuCORE). We continue to leverage these therapeutic platforms to expand our deep pipeline of next-generation biotherapeutics that we believe could represent significant improvements to the standard of care in multiple cancer types.

Azymetric Bispecific Antibody Platform

The Azymetric platform consists of a library of proprietary amino acid substitutions in the Fc and Fab regions that transform monospecific antibodies into bispecific antibodies, giving them the ability to simultaneously bind two non-overlapping epitopes. The core technology consists of complementary amino acid substitutions on each of the CH3 domains that we have engineered to facilitate the obligate interaction of two distinct heavy chains. Additional amino acid substitutions are also introduced at the heavy-light chain interfaces to facilitate the correct pairing of the heavy chains with their respective light chains.

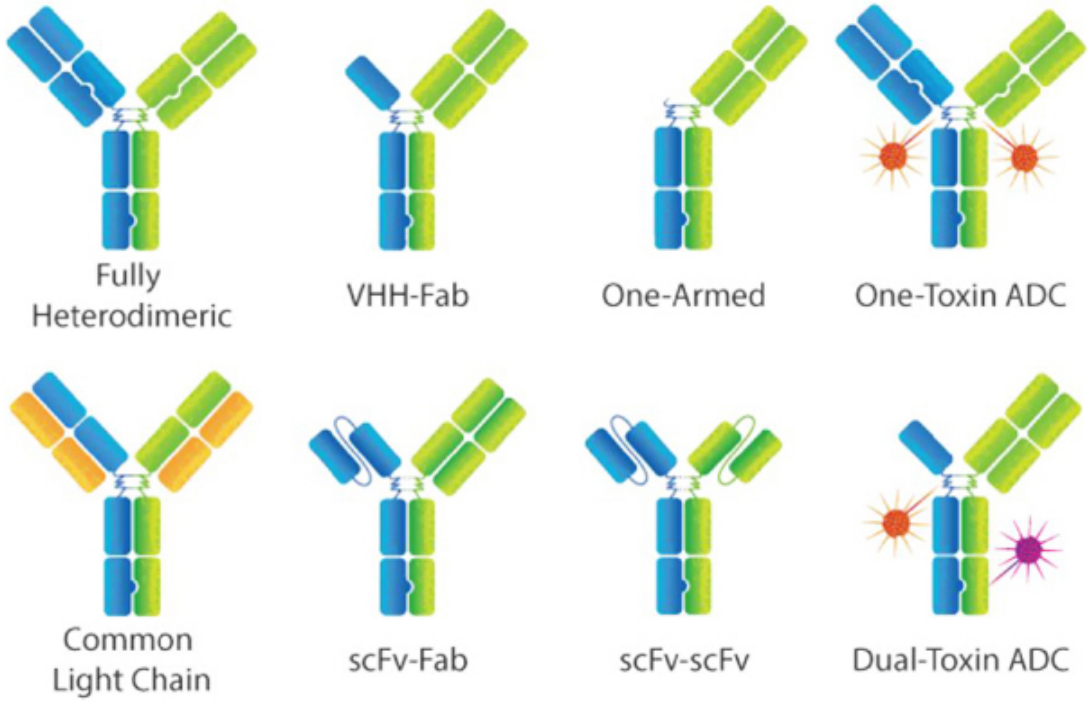
We are leveraging the multiple therapeutic mechanisms of action of our Azymetric platform to develop our internal pipeline of wholly owned bispecific product candidates, including ZW25 and ZW49. We have also licensed the Azymetric platform to our strategic partners (Merck, Lilly, Celgene, GSK, Daiichi Sankyo and Janssen) for their own therapeutic development.

We have engineered our Azymetric bispecific antibodies to retain the desirable features of naturally occurring IgG antibodies, including low immunogenicity, long serum half-life, high stability and the ability to mediate effector function. Azymetric antibodies are also manufactured using industry-standard monoclonal antibody processes and maintain high production yields and product purity. This allows for “plug-and-play,” low-cost, high-quality manufacturing for both our proprietary and partnered product candidates. These are significant advantages compared to competing bispecific technologies, which in many cases suffer from poor stability or may require additional complex manufacturing steps. By retaining the properties of an unmodified Fc region, Azymetric antibodies can be stably formulated, dosed on a convenient schedule, and have the ability to kill tumors through multiple mechanisms of action. In addition, Azymetric antibodies are compatible with glyco-engineering and other Fc modifications (for example, our EFECT platform) to enhance therapeutic activity.

Unique Mechanisms of Action of Bispecific Antibodies

Bispecific antibodies can mediate effects through multiple unique mechanisms of action, including: (i) enhanced receptor clustering, which may accelerate internalization and promote sub-cellular sorting to the lysosome for improved cytotoxin delivery; (ii) recruitment of immune cells to tumor cells by simultaneous engagement of receptors on each cell; (iii) increasing tumor cell decoration by engaging two targets on the same receptor, or two different receptors, to enhance Fc-mediated effector cell function; (iv) improved specificity of tumor targeting by requiring engagement of two tumor-associated antigens; (v) dual receptor blockade with a single antibody to suppress signaling through two oncogenic pathways (the same effect can be achieved by dual ligand binding); or (vi) by bridging proteins to replace a missing component of a macromolecular complex. Other unique bispecific mechanisms of action include delivering biologics across the blood brain barrier, enhancing tumor cell death signaling by improved receptor clustering, and increasing cytotoxin delivery by coupling a poorly internalizing tumor-specific receptor to a well-internalizing target.

Unlike many other bispecific platforms, the Azymetric platform is compatible with alternative antigen binding formats (e.g. antigen binding fragments, or Fabs, single chain antibodies, or scFvs, and heavy chain antibodies, or VHHs, see illustration below). This flexibility allows us to explore multiple different structural variants and to select the format that provides optimized engagement geometry for a given target pair to maximize therapeutic effect for the desired biology. We believe that this level of therapeutic customization will be essential to design next-generation biologics that effectively target increasingly complex biological challenges.



Azymetric Format Variants. Azymetric antibodies can be formatted with dual Fab antigen-targeting arms, with common light chains, in alternate scFv or VHH formats, hybrid formats, or as ADCs, in order to create highly tailored biotherapeutics that provide optimal engagement geometry for a given target pair to maximize therapeutic effect.

We have designed the Azymetric platform to provide us with the following competitive advantages:

- dual-targeting of receptors and ligands
  - *enables enhanced tumor specificity and synergistic efficacy;*
- simultaneous blockade of multiple signals or parallel pathways
  - *enhances efficacy while reducing the potential for drug resistance and relapse;*
- several modular and compatible antibody formats
  - *enables fit-for-purpose biotherapeutic development that optimally exploits therapeutic targets in the context of each particular disease state;*
- redirected targeting of immune effector cells to the tumor
  - *recruits and activates the patient's naïve immune cells to attack tumors for increased efficacy;*
- enhanced antibody internalization and sub-cellular sorting
  - *delivers more drug to tumors for increased efficacy;*
- IgG-like biophysical and functional properties
  - *retains effector function and enhances pharmacokinetics and stability, with resistance to aggregation and reduced immunogenic potential relative to other bispecific formats; and*
- compatible with existing industry-standard manufacturing and purification protocols

- *plug-and-play manufacturing process accelerates development and reduces cost of goods.*

ZymeLink Conjugation Platform and Cytotoxins

The ZymeLink conjugation platform represents a suite of novel site-specific protein conjugation technologies and customizable cleavable linkers that enable the delivery of cytotoxic payloads, and can be applied to all of our antibody and albumin-based therapeutic scaffolds. The ZymeLink platform enables the production of homogeneous product candidates that are stable in circulation but enable the efficient release of payload upon internalization by target cells. For antibodies, the ZymeLink platform has been specifically engineered to preserve Fc effector function to facilitate the recruitment and activation of immune cells as well as maintain typical antibody pharmacokinetics.

We have also developed a series of proprietary cytotoxic payloads, spanning multiple classes, which possess highly potent anti-tumor activity against a broad range of cancer cell types. When conjugated to tumor-targeting antibodies, the resulting ZymeLink-cytotoxin conjugates demonstrate exceptional anti-tumor activity and tolerability *in vivo* in our preclinical studies. In fact, the ZymeLink-cytotoxin conjugates are tolerated by non-human primates at doses six-fold higher than the only currently approved cleavable ADC platform based on monomethyl auristatin E, or MMAE, potentially resulting in an expanded therapeutic window in patients. This key competitive advantage may enable administration of higher ADC doses and delivery of more cytotoxin to the tumor, with reduced toxic side effects, relative to other ADC platforms.

We have designed the ZymeLink platform to provide us with the following competitive advantages:

- targeted delivery of our proprietary next-generation cytotoxins
  - *optimizes efficacy and safety profiles thus broadening the therapeutic window;*
- customized cleavable linkers with optimized loading, stability and release
  - *maximizes drug delivery to target cells while minimizing off-target effects;*
- site-specific conjugation technology
  - *ensures product homogeneity, preserves Fc effector function for recruitment/activation of immune cells, and maintains pharmacokinetics through FcRn engagement; and*
- compatible with multiple antibody and protein formats including Azymetric, AlbuCORE and our partnered programs
  - *maximizes utility across a broad range of applications.*

Importantly, the ZymeLink conjugation platform is compatible with our proprietary cytotoxins as well as a variety of additional small molecule therapeutics. Together, they can be combined with traditional monoclonal antibodies and with the Azymetric (bispecific), EFECT and AlbuCORE (multispecific) platforms to enable the development of best-in-class, life-changing therapies for patients.

EFECT Antibody Effector Function Modulation Platform

Immune cells bind to the Fc region of antibodies through proteins called Fc receptors. When bound, some Fc receptors activate immune cell function (FcgRIIa and FcgRIIIa), while other Fc receptors inhibit immune cell function (FcgRIIb). This phenomenon is known as effector function. The EFECT platform is comprised of proprietary sets of amino acid modifications to the Fc region of antibody-based therapeutics, which enable us to selectively modulate their effector function (Effector Function Eliminating, Effector Function Enhancing or Immune Inhibitory) and tailor the activity of recruited immune cells for specific therapeutic applications. As an example, for the development of T cell re-directing bispecific antibodies, using the Effector Function Eliminating modifications prevents binding between the antibody's Fc region and the Fc receptors of immune cells, which may otherwise lead to inadvertent toxicity. Alternatively, for more traditional anti-cancer therapeutic antibodies, using the Effector Function Enhancing modifications improves binding between the antibody's Fc region and activating Fc receptors, which may enhance immune cell-mediated anti-cancer activity. The ability to tune-up, tune-down, or eliminate immune cell engagement allows tailoring of the antibody's effector function to match the desired therapeutic mechanism of action.

The EFECT platform is compatible with traditional monospecific antibodies and with Azymetric bispecific antibodies. We have licensed certain aspects of this therapeutic platform to Merck, GSK, Daiichi Sankyo and Janssen for use in conjunction with the Azymetric platform. We have also entered into a collaboration with GSK for the further development and commercialization of the EFECT platform.

We have designed the EFECT platform to provide the following competitive advantages:

- selective enhancement of activating FcgR interactions
  - *enables precise up-regulation of immune effector function;*
- selective enhancement of inhibitory FcgR interactions
  - *enables precise downregulation of B cell or mast cell function and permits antibody crosslinking via immune cell engagement without immune cell activation; and*
- proprietary mutations to eliminate FcgR interactions
  - *eliminates the interaction between an antibody and the FcgR of immune cells more completely than alternative approaches while retaining the attractive pharmacokinetics of a full-sized antibody.*

AlbuCORE Multispecific Antibody Alternative Platform

The AlbuCORE platform is a novel and proprietary suite of multivalent scaffolds based on HSA. This platform is highly flexible and enables the addition of up to four customizable targeting domains, which allows for additional tumor specificity and synergistic activity as well as increased affinity and selectivity for the desired target. The resulting superstructure naturally accumulates in tumor microenvironments or areas of inflammation and benefits from several attractive attributes of HSA, including superior pharmacokinetics and stability. Additionally, these AlbuCORE constructs possess standard manufacturing and purification protocols compatible with industry-standard conjugation technologies which accelerate development and reduce manufacturing costs.

We evaluated a number of positions where the native HSA amino acid sequence could be split into two polypeptide chains. When the two separate chains are co-expressed, they efficiently and spontaneously associate to reform a native-like HSA structure with four available termini to which antigen-targeting domains can be fused, or other agents chemically conjugated.

Variants created using the AlbuCORE platform retain the attractive features of HSA as a therapeutic scaffold. AlbuCORE variants exploit the natural accumulation of albumin in tumors through enhanced tumor permeability and retention, and the increased demand by tumors for albumin as a source of energy and amino acids. AlbuCORE variants also retain the favorable pharmacokinetic properties of HSA, which have previously been exploited by fusing HSA to peptides, hormones and cytokines to extend the half-life of these otherwise rapidly cleared molecules. Unlike antibodies, AlbuCORE-based biotherapeutics inherently lack effector function; this is a highly desirable trait in certain therapeutic applications. AlbuCORE variants also exhibit ideal manufacturing characteristics: they retain the stability and solubility characteristics exemplified by the frequent use of HSA as an excipient in pharmaceutical product formulations and can be produced in microbial expression systems at reduced cost-of-goods compared to other systems.

AlbuCORE’s multivalent binding capabilities enable us to design biotherapeutics with high avidity binding or multispecific targeting to crosslink multiple disease targets and effector cells. Similar to the Azymetric platform, the AlbuCORE platform also offers the flexibility to test multiple formats with variable inter-termini distances and geometries. This allows us to identify a variant with the optimal targeting geometries needed to induce maximal effect for a particular disease state.

We have designed the AlbuCORE platform to provide the following competitive advantages:

- multivalent targeting: up to four sites to which peptides or protein domains can be fused
  - *enables enhanced tumor specificity and synergistic efficacy;*
- ability to customized geometry of targeting domains and optimized structure-activity relationship
  - *increases affinity and selectivity for therapeutic target leading to increased efficacy and decreased toxicity;*
- HSA-like biophysical and functional properties
  - *naturally accumulates in the tumor microenvironment and at sites of inflammation*
  - *increases serum circulation and tissue residence time compared to small molecules and other protein scaffolds*
  - *enhances stability and pharmacokinetics, and decreases immunogenic potential; and*
- compatible with existing industry-standard manufacturing and purification protocols
  - *standard manufacturing process accelerates development and reduces cost of goods.*

ZymeCAD Computational Modeling and Engineering Technology

Our therapeutic platforms are enabled by our protein engineering expertise and by leveraging ZymeCAD, our proprietary computational modeling technology. We continue to leverage ZymeCAD to support our strategic partnerships and develop novel therapeutic platforms.

ZymeCAD is a comprehensive approach to predictive protein modeling and structure-guided protein engineering. We utilize this suite of proprietary software modules to develop better therapeutic platforms by increasing our understanding of the structure-function relationships and biophysical characteristics of specific protein changes. These software modules include:

Molecular Modeling

ZymeCAD includes a number of proprietary software tools used to build and refine the quality of high-definition molecular models, incorporating structural data from multiple sources including crystallography, homology and sequence data as well as experimentally derived data. High quality structural models of protein therapeutics and their interactions with targets are a critical component of our approach to protein engineering and the design of next-generation product candidates and therapeutic platforms.

Conformational Dynamics

ZymeCAD incorporates a number of simulation approaches to sample and evaluate changes within molecular systems, including protein backbone, sidechain and interdomain changes. Proprietary simulation methodologies provide us with a comprehensive understanding of the alternate states and functional characteristics of the protein of interest, including target binding and stability.

Hot Spot Determination

ZymeCAD plays a key role in the *in silico* identification of a specific subset of amino acids in a protein that is critical to determining its functional characteristic and overall stability. These amino acid residues can play a role either independently or as part of a cluster of networked residues, and through proprietary algorithms, ZymeCAD can identify these critical residues, referred to as “hot spots.” These analyses, including the inherent knowledge of the downstream impact of altering specific hot spots, can drive the rational design and engineering of product candidates.

Energy Function and Scoring

ZymeCAD contains proprietary energy and scoring functions that score and rank the stability of proteins and binding energies across protein-target interfaces, and the outward-facing surfaces of the proteins. This empirical ranking methodology was developed, implemented and successfully utilized in the development of our platform technologies and biotherapeutics, and plays a key role in executing on our strategic partnerships relating to the development of new EFECT modalities.

Rigorous commercial software engineering practices, coupled with robust quality assurance standards and a world-class software engineering team have created an extensible, scalable, reliable and secure platform that we believe positions us to remain at the leading edge of the development of next-generation biotherapeutics as we continue to innovate beyond the current state of art in computational protein design.

Next-Generation Biologics Market Opportunity

The expansion of the pharmaceutical market driven by an aging worldwide population and increased standard of living in emerging markets has contributed to growth of the biologics markets over the last several years. Monoclonal antibodies are the most prevalent biologic type, as they are effective, amenable to platform development, well-validated as a therapeutic class and familiar to regulatory agencies. Since the first antibody approval in 1986, approximately 47 products have been approved by the FDA and international regulatory authorities. Notably, the three largest-selling oncology products are monoclonal antibodies, Rituxan, Herceptin and Avastin, which had 2017 worldwide sales of approximately $7.7 billion, $7.2 billion and $6.9 billion, respectively. Currently there are over 300 monoclonal antibodies in various stages of clinical development with combined global sales expected to reach nearly $125 billion.

The overall market for bispecific antibodies has been estimated to reach $5.8 billion in 2024. Notably, these forecasts are conservative and reflect only projections for bispecifics in late-stage development. Challenges with existing bispecific technologies include a short half-life *in vivo*, low stability, and various manufacturing-related challenges. We believe the true market for bispecifics is significantly larger and we expect it to grow as clinical and regulatory experience with this class of therapeutics increases and stable bispecific antibodies with a longer *in vivo* half-life and enhanced efficacy are developed.

ADCs are a relatively more mature next-generation biotherapeutic technology comprising of monoclonal antibodies attached to biologically active drugs by chemical linkers with labile bonds. By combining the specific targeting ability of antibodies with cytotoxic drugs, ADCs allow sensitive discrimination between healthy and diseased tissue. Initial data suggests that some ADCs may have additive or synergistic effects with immuno-oncology drugs, notably with checkpoint inhibitors. Despite improvements in second generation ADCs, it is generally accepted that only a small fraction of their payload is delivered to the target, leaving significant room for improvement. Key challenges include production of consistent ADC batches, efficacy of antibody targeting and linkers with delayed payload release and poor stability. Potential solutions include alternative targeting mechanisms such as bispecifics, new linker technologies to improve the pharmacokinetic profile and improved conjugation of the linker to the antibody. Four ADCs are currently approved for use in the United States: Seattle Genetics' Adcetris, Roche/Genentech's Kadcyla and Pfizer's Besponsa and Mylotarg. Adcetris and Kadcyla accounted for $1.55 billion in sales for 2016. With over 50 antibody-drug conjugates in the clinic, including 20 programs in Phase 2 or Phase 3 trials, the market for ADCs has been estimated to be between $10.0 billion and $12.7 billion by the 2020-2025 timeframe.

Product Candidate Pipeline

ZW25: Anti-HER2 Biparatopic Antibody

Overview

ZW25, our lead product candidate currently being evaluated in an adaptive Phase 1 clinical trial in the United States, is based on our Azymetric platform. It is a bispecific antibody that can simultaneously bind two non-overlapping epitopes, known as biparatopic binding, of HER2 resulting in dual HER2 signal blockade, increased binding and removal of HER2 protein from the cell surface, and enhanced effector function. These combined mechanisms of action have led to activity in preclinical models of breast cancer, including trastuzumab-resistant (currently branded as Herceptin) high HER2-expressing tumors, as well as in tumors with lower levels of HER2 expression. Approximately 81% of patients with HER2-expressing breast cancer and 57% of patients with HER2-expressing gastric and gastroesophageal junction cancer have tumors that express low to intermediate levels of HER2, making them ineligible for treatment with currently approved HER2-targeted therapies, such as Herceptin and Perjeta. In addition, multiple other cancers, including ovarian, bladder, colorectal and non-small cell lung cancer express HER2 at varying levels. Therefore, there is a significant unmet need for HER2-targeted agents that can effectively treat these patients. In our Phase 1 clinical trial, ZW25 has been well tolerated with promising single agent anti-tumor activity in patients with heavily pretreated HER2-expressing cancers that have progressed after standard of care treatment, including multiple HER2-targeted regimens.

We are developing ZW25 as a best-in-class HER2-targeting antibody intended as a treatment option for patients with any solid tumor that expresses HER2. Our initial focus is on the treatment of patients with high HER2-expressing breast or gastric cancers that have progressed after treatment with HER2-targeted therapies, such as Herceptin and Perjeta, or that are not eligible for approved HER2-targeted therapies based on lower levels of HER2 expression. We then intend to develop ZW25 as a therapeutic agent for other HER2-expressing cancers. ZW25 has been granted Orphan Drug Designation for the treatment of both gastric and ovarian cancer by the FDA.

HER2 and the Current Treatment of HER2-expressing Breast and Gastric Cancer

HER2 is a member of the human epidermal growth factor receptor, or HER, family of receptors that normally stimulate cell growth in response to ligand binding, receptor activation and downstream molecular signaling cascades. In cancerous cells, the gene encoding HER2 can become amplified. Amplification greatly increases the number of HER2 receptors expressed on the cell surface causing inappropriate and unregulated signaling that accelerates cell growth, reduces apoptosis and enhances cell motility leading to cancer. HER2 expression therefore provides a selective marker on the surface of tumors for therapeutic targeting. The table below illustrates the incidence of high HER2 expression in a variety of different cancer types:

Incidence of HER2 Gene and Protein Expression in Various Cancers

Cancer Type	Incidence of High HER2 Expression
Breast	~20%
Bladder	5-15%
Endometrial	8-35%
Ovarian	6.7%
Gastroesophageal	4-22%
Pancreatic	2-29%
Cervical	1-21%
Head & Neck	3%
Colorectal	2-3%
Lung	1-6%
Melanoma	0-5%

Excerpted from Yan et al. HER2 aberrations in cancer: implications for therapy. Cancer Treatment Reviews 2014 40, 770-780.

The level of HER2 expression in tumors is commonly used to guide treatment decisions for patients with breast and gastric cancers. HER2 levels in tumor biopsies are typically screened by immunohistochemistry, or IHC, and assigned a value from 0 (baseline expression levels) to 3+ (extraordinarily high expression levels). Similarly, gene amplification can be determined by fluorescence *in situ* hybridization, or FISH, and scored as either negative (two copies are normal) or positive (extra copies). The HER2 expression status of cancer can be described as High, Intermediate, Low or Negative according to the classification table below.

Breast and Gastric Cancer Classification According to HER2 Status

HER2 Expression Classification	IHC				FISH			HER2-Targeted Therapies Approved		Zymeworks Candidates
	3+	2+	1+	0	Positive	Equivocal	Negative	Breast	Gastric	
HER2 High	X	X			X			Herceptin, Perjeta, Kadcyla, Tykerb, Nerlynx	Herceptin	ZW25 ZW49
HER2 Intermediate		X				X	X	None	None	ZW25 ZW49
HER2 Low			X			X	X	None	None	ZW25 ZW49
HER2 Negative				X			X	N/A	N/A	N/A

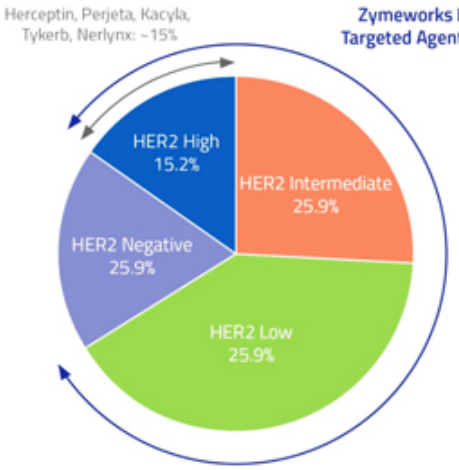
HER2 expression has been associated with a worse outcome in a number of cancers, particularly HER2 High-expressing breast cancers. Prior to the advent of HER2-targeted therapies, patients with HER2-expressing breast cancer had reduced overall survival and greater likelihood of relapse relative to patients with HER2 Negative breast cancer.

Breast cancer treatment is based on disease stage, grade, hormone and HER2 receptor status. Treatment options include surgery, radiotherapy and drug therapy. Early-stage tumors are typically removed by surgery and patients may be treated with drugs to prevent cancer recurrence, referred to as adjuvant therapy. In cases when the tumor is larger, patients may be administered drug treatments to reduce the tumor size prior to surgery, referred to as neoadjuvant treatment. Breast tumors that cannot be removed surgically because they are locally advanced or metastatic are treated primarily with drugs.

The type of drug prescribed for a particular breast cancer patient depends on the molecular signature of the patient's tumor. HER2-targeted therapies are only approved for patients whose tumors are classified as HER2 High, representing approximately 20% of all breast cancer patients. Five drugs targeting HER2 have been approved by the FDA for the treatment of early and late-stage breast cancers that overexpress HER2: Herceptin (trastuzumab), Perjeta (pertuzumab), Kadcyla (ado-trastuzumab emtansine) or T-DM1, Tykerb (lapatinib) and Nerlynx (neratinib). Current standard of care for HER2 High breast cancer is built on a backbone of HER2 inhibition throughout all lines of therapy. For metastatic disease, first-line standard of care therapy consists of Herceptin, Perjeta and a taxane resulting in an average overall survival benefit of 56.5 months. Second line standard of care is Kadcyla. For patients who have progressed after treatment with Herceptin, Perjeta and Kadcyla there is no preferred treatment. Options include Herceptin plus chemotherapy, Herceptin plus Tykerb or Tykerb plus Xeloda. While HER2-targeted therapies are effective in many patients with HER2 High breast cancer, some patients fail to respond to these drugs and all patients with metastatic disease ultimately relapse.

In addition to improved options for HER2 High breast cancer, there is also a need for HER2-targeted therapies that can effectively treat cancers with lower levels of HER2 expression (HER2 Low / HER2 Intermediate). Approximately 81% of patients with HER2-expressing breast cancer have tumors that express low to intermediate levels of HER2. Currently approved HER2-targeted therapies, such as Herceptin and Perjeta, are not sufficiently active to provide clinical benefit to patients whose tumors express low to intermediate levels of HER2 and therefore are not approved for these indications. Some of these patients may have tumors that express either or both the estrogen receptor and progesterone receptor and may receive hormone therapies such as tamoxifen, which can result in an average overall survival benefit of 43.3 months. However, tumors that lack expression of the estrogen and progesterone receptors and express HER2 at low to intermediate levels are currently classified as triple negative. These patients receive cytotoxic chemotherapy and fare much more poorly, living just 13.3 months, on average. We believe adding ZW25 to the existing standard of care for these molecular subtypes may lead to improved survival for these patients.

Breast Cancer Classification by Graded HER2 Expression

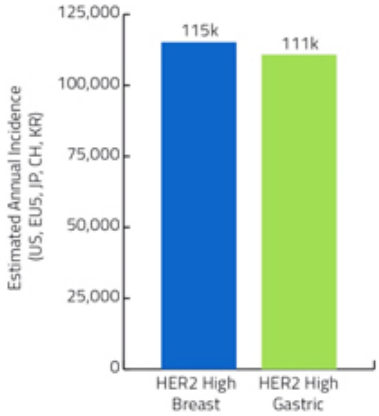


HER2 Status	Estimated Annual Incidence (US & EU5)	Estimated Annual Incidence (JP, CH, KR)
HER2 High	75,684	39,530
HER2 Intermediate	128,960	67,356
HER2 Low	201,159	105,065
HER2 Negative	92,115	48,112

A Significant Number of Breast Cancer Patients Express HER2 at Low and Intermediate Levels. ZW25 may be able to treat breast cancer patients whose tumors are currently classified as triple negative or hormone receptor positive that express HER2 at High, Intermediate and Low levels representing a substantial unmet medical need.

Many gastric/gastroesophageal junction cancers also have high levels of HER2 expression. Herceptin has been approved in combination with chemotherapy as first-line treatment of HER2 High-expressing gastric and gastroesophageal junction cancers whereas other HER2-targeted agents including Kadcyla, Perjeta and Tykerb have failed to demonstrate efficacy in this indication. Patients with advanced gastric cancer whose tumors express high levels of HER2 and receive Herceptin plus chemotherapy live an average of 16 months and nearly all eventually progress. Beyond first-line Herceptin, there are currently no approved first-line HER2-targeted therapies for gastric cancer and the median progression-free survival for the preferred second-line regimen, Cyramza plus a taxane, is just 4.4 months, representing a significant unmet need. Gastric cancer is the fifth most common cancer and the third leading cause of cancer death worldwide. For perspective, in the combined U.S., EU5, and major Asian markets of Japan (JP), China (CH) and South Korea (KR), the number of patients diagnosed with HER2 High gastric cancer (110,868) is comparable to HER2 High Breast Cancer (115,214). However, there are far fewer targeted therapies to treat gastric cancer, either approved or in clinical development, representing a significant opportunity for improvement. In our Phase 1 clinical trial, ZW25 has been well tolerated with promising single agent anti-tumor activity in patients with heavily pretreated HER2 High gastric cancers that have progressed after standard of care, including Herceptin.

Gastric Cancer Classification by Graded HER2 Expression



HER2 Status	Estimated Annual Incidence (US & EU5)	Estimated Annual Incidence (JP, CH, KR)
HER2 High	13,887	96,981
HER2 Intermediate	4,213	29,384
HER2 Low	14,511	101,214
HER2 Negative	45,250	315,615

HER2 High Gastric Cancer has Comparable Incidence to HER2 High Breast Cancer but with Greater Medical Need. HER2 High gastric cancer has comparable incidence in the combined US, EU5, and major Asian markets JP, CH and KR as HER2 High breast cancer with far fewer approved targeted therapies. ZW25 may be able treat gastric cancer patients whose tumors are currently classified as HER2 High as well as those with lower levels of HER2 expression.

A subset of other cancers, including ovarian, bladder, colorectal and NSCLC also express HER2 at varying levels and should be amenable to treatment with next-generation HER2-targeted therapies. Thus, there is a significant unmet need for biotherapeutics that can effectively treat HER2-expressing tumors not currently eligible for HER2-targeted therapies.

Potential Advantages of ZW25

ZW25 is an anti-HER2 biparatopic bispecific antibody. The biparatopic binding mode increases the number of antibodies bound to HER2 receptors at the cell surface relative to monospecific antibodies and promotes receptor clustering and internalization.

ZW25 mediates its therapeutic effect on HER2-expressing tumors through a combination of therapeutic mechanisms including:

- cross-linked trans HER2 binding and HER2 receptor clustering;
- enhanced antibody internalization and HER2 downregulation;
- increased maximum binding density and potent effector function-mediated cytotoxicity; and
- enhanced blockade of ligand-dependent and ligand-independent tumor growth.

We believe that ZW25 will be an effective therapy for the treatment of HER2-expressing breast cancer patients that are either ineligible for Herceptin or Perjeta based on HER2 expression levels, or who have relapsed or refractory HER2 High breast cancers. We estimate that the annual patient population for our lead indication (first-line Stage III inoperable and Stage IV breast cancer, HER2 2+, non-FISH amplified) in the United States, France, Germany, Italy, Spain and the United Kingdom will reach 30,400 by 2023.

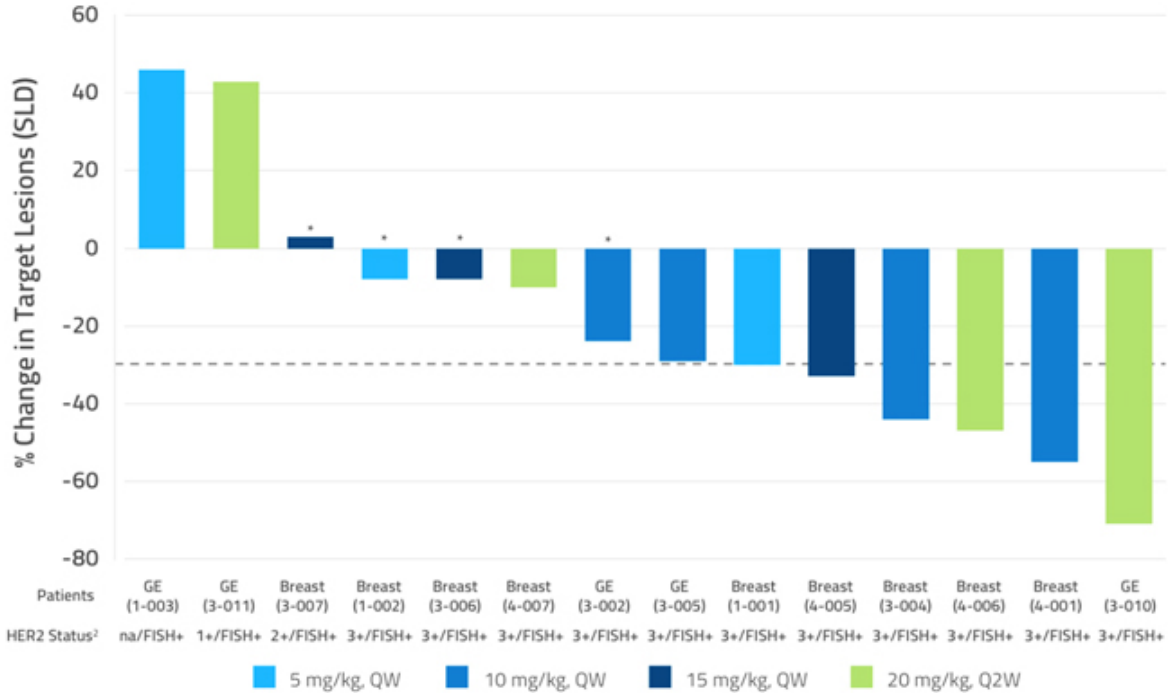
ZW25 may also be an effective therapy for the neoadjuvant or adjuvant treatment of HER2 Low and Intermediate-expressing early-stage breast cancer. Given the large population that could potentially benefit from ZW25 treatment, approval in any of these indications would offer significant upside to the market opportunity for ZW25.

Clinical Development of ZW25

ZW25 is being evaluated in a non-randomized, open-label, adaptive Phase 1 clinical trial conducted pursuant to an IND submitted by us to the FDA that became effective in July 2016. This trial will evaluate ZW25 as a single agent (Part 1, 2) and in combination with standard of care chemotherapy (Part 3) in patients with locally advanced (unresectable) or metastatic solid tumors that express HER2, as confirmed by IHC or FISH and as described in the IND for ZW25. The primary objectives of the trial are to characterize the safety, tolerability, pharmacokinetic profile and maximum tolerated dose of ZW25. Secondary objectives include evaluation of preliminary anti-tumor activity, as well as identification of potential biomarkers of response. We intentionally designed our Phase 1 trial to enable a potentially accelerated path to regulatory approval in patients who have progressed after approved therapies (Part 2), while maintaining the flexibility to include components (Part 3) which could help advance ZW25 into earlier lines of therapy. We have completed the dose escalation segment (Part 1) and enrollment is underway for Part 2 of the study utilizing ZW25 weekly at 10 mg/kg and every other week at 20 mg/kg in five expansion cohorts spanning HER2 High breast, HER2 High gastric, HER2 Intermediate breast, HER Intermediate gastric, and other HER2 gene amplified cancers. The full study is expected to be complete by the end of 2018.

A snapshot of the clinical database from November 16, 2017 for Part 1 of the Phase 1 clinical trial has demonstrated that ZW25 has been well tolerated with promising single agent anti-tumor activity in patients with heavily pre-treated HER2 expressing cancers, including multiple HER2 targeted regimens. A total of 22 patients were enrolled in the study, including 11 with breast cancer, eight with gastric, gastroesophageal junction, or esophageal (GE) cancer and three with other HER2 expressing cancers. The first part of this multi-part study was a standard dose escalation in which patients received ZW25 either weekly at 5 mg/kg (n=3), 10 mg/kg (n=6), or 15 mg/kg (n=7) or bi-weekly (once every two weeks) at 20 mg/kg (n=6) in four-week cycles to identify a dose and schedule to take forward for further evaluation. All patients had received multiple prior regimens of systemic therapy for metastatic disease (range 1-10), representing a heavily pretreated population. No dose-limiting toxicities were seen at any dose level or schedule. The most common adverse events were diarrhea, infusion reactions, or nausea, all Grade 1 or 2 in severity. There were no treatment-related serious adverse events, cardiac events or decreases in left ventricular ejection fraction.

In our study, seventy-nine percent of breast and GE cancer patients with measurable disease (11/14) had a decrease in target lesions per RECIST criteria. The best overall response (BOR) in 17 response-evaluable breast and GE cancer patients (defined as having target or non-target lesions and at least one tumor restaging) was six partial responses (PR) (35%), three stable disease (SD) (18%) and eight progressive disease (PD; 47%). Of the eleven breast cancer patients, all were HER2 high and had received a median of six prior HER2 targeted regimens for metastatic disease including trastuzumab (n=11), T-DM1 (n=11), pertuzumab (n=9), and lapatinib (n=7), as well as other investigational agents. The BOR in these heavily pretreated patients was five PR (45%), two SD (18%), and three PD (27%), for an overall disease control rate (Complete Response, PR, or SD) of 64%. At least one PR was observed in every dosing group. Of the eight GE patients, six were evaluable for response, and had received a median of four prior systemic regimens, including trastuzumab in all patients. Three of five patients with measurable disease had a decrease in tumor size, including one patient continuing on treatment with a confirmed PR and 71% decrease in target lesions, as well as a second patient with SD for over six months.



Target Lesions Decrease in Majority of Patients with Measurable Disease. Single agent anti-tumor activity in breast or gastric, gastroesophageal junction, or esophageal patients with measurable disease per RECIST 1.1 criteria and at least one tumor re-staging. HER2 status based on central assessment and refers to immunohistochemistry score and gene amplification status. Data cutoff as of November 16, 2017 and presented at the San Antonio Breast Cancer Symposium December 5, 2017. *Patient best response considered PD due to new lesion.

If we continue to see evidence of anti-tumor activity in indications with high unmet medical need such as HER2-expressing cancer that has progressed after all therapies known to confer clinical benefit, we intend to seek fast track designation for ZW25 from the FDA. Furthermore, we would discuss with the FDA and other regulatory authorities the appropriate trial designs that might support accelerated approval using a surrogate endpoint such as response rate. We would also consider seeking breakthrough designation if the data were considered to be strongly compelling, such as evidence of a response rate or clinical benefit rate well above the expected rate. The FDA and corresponding regulatory authorities will ultimately review our clinical results and determine whether our product candidates are safe and effective and whether accelerated regulatory approval is possible. No regulatory agency has made any such determination that any of our product candidates are safe or effective for use by the general public for any indication nor has any regulatory authority provided any indication that ZW25 will be eligible for accelerated approval.

As ZW25 mediates its therapeutic effect through several mechanisms of action, we believe this antibody has the potential to be a best-in-class therapy providing clinical benefit to patients with any HER2-expressing cancer, including those with low to intermediate levels of HER2 that are not eligible for other HER2-targeted therapies, as well as those patients who have progressed after prior HER2-targeted therapies. The FDA has granted Orphan Drug Designation to ZW25 for the treatment of both gastric and ovarian cancer.

ZW49: Anti-HER2 Biparatopic ADC

Overview

ZW49 is a biparatopic anti-HER2 ADC that is based on the same antibody framework as ZW25 and its predecessor product candidate, ZW33, and takes advantage of high levels of ZW25's antibody-targeted internalization to deliver our proprietary ZymeLink cytotoxic payload. ZW49 and ZW33 were being developed in parallel; however, we made the strategic decision to advance ZW49 as a lead product candidate in lieu of ZW33 based on ZW49's superior therapeutic window attributable to its use of our proprietary ZymeLink ADC platform. We are developing ZW49 as a best-in-class HER2-targeting ADC for several indications characterized by HER2 expression, especially for patients whose tumors have progressed or are refractory to HER2-targeted agents and those that express lower levels of HER2 and are ineligible for treatment with HER2-targeted therapies including Kadcyla. We plan on filing an IND application for ZW49 in 2018.

Potential Advantages of ZW49

ZW49 is a combination of an Azymetric biparatopic anti-HER2 antibody conjugated to our proprietary ZymeLink cytotoxic payload via a cleavable linker. Our cytotoxic payload destabilizes tubulin, a protein necessary for cell division, and therefore selectively kills rapidly dividing cancer cells. Compared to existing HER2-targeted therapies, ZW49 mediates a superior therapeutic effect on HER2-expressing tumors through a combination of mechanisms, including:

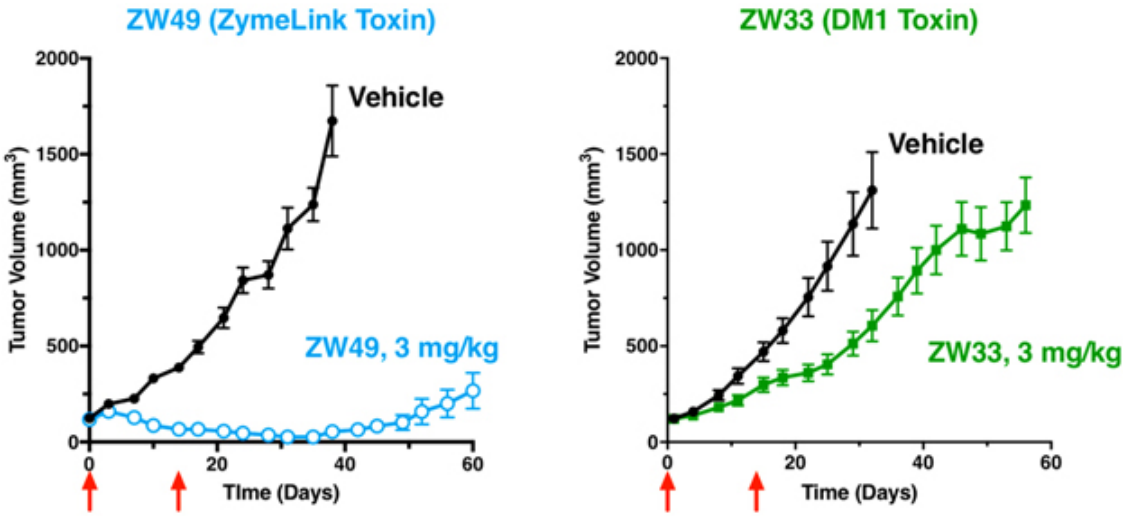
- cross-linked *trans* HER2 binding and HER2 receptor clustering;
- increased HER2-mediated antibody internalization leading to:
  - enhanced toxin-mediated cytotoxicity and tumor growth inhibition;
  - enhanced HER2 downregulation;
- increased maximum binding density and potent effector-function mediated cytotoxicity; and
- enhanced blockade of ligand-dependent and ligand-independent tumor growth.

The development of ZW49 will follow a similar path as we had proposed for ZW49's predecessor product candidate, ZW33. Initially, we plan to focus on patients with HER2 High-expressing breast and gastric cancer who have progressed on or are refractory to approved HER2-targeted agents, including Herceptin, Perjeta and Kadcyla (or the combination therapy of Herceptin, Perjeta and chemotherapy in metastatic breast cancer), as well as additional cancers expressing lower to intermediate levels of HER2. In preclinical studies, ZW49 has demonstrated superior activity compared to the only approved HER2-targeted ADC, Kadcyla. If ZW49 demonstrates superiority in head-to-head clinical trials, we believe it has the potential to replace Kadcyla as the preferred therapy for second line treatment of HER2+ metastatic cancer, for which the estimated annual patient population for this indication in the United States and EU is expected to reach 10,700 by 2023. Ultimately, ZW49 could be used as a follow-on therapy for ZW25, mirroring the development strategy employed for Kadcyla as follow-on therapy for Herceptin. ZW49 also has the potential to be a treatment for other HER2-expressing cancers, which would expand the addressable market. The FDA and corresponding regulatory authorities will ultimately review our clinical results and determine whether our product candidates are effective. No regulatory agency has made any such determination that ZW49 is effective for use by the general public for any indication.

Preclinical Development of ZW49

ZW49 displayed potent in vitro cytotoxicity in several cancer cell lines expressing HER2 and has demonstrated anti-tumor activity in multiple patient-derived xenograft models. In mice bearing HER2 High tumors, two doses of ZW49 at 3 mg/kg administered two weeks apart generated tumor regressions (Figure below left panel). For perspective, in the same xenograft model two doses of ZW33 at 3 mg/kg administered two weeks apart resulted in tumor growth inhibition (Figure below right panel). Furthermore, treatment with ZW49 resulted in anti-tumor activity in patient-derived xenograft models with lower levels of HER2 expression that do not respond to approved HER2-targeted therapies including T-DM1, or to ZW33.

ZW49 Demonstrates Tumor Regression in a HER2 HIGH PDX Model



ZW49 Demonstrates Superior Anti-Tumor Activity Compared to ZW33 in a Trastuzumab-Resistant HER2 High Patient-Derived Xenograft Model. In two separate experiments using the same HER2 High PDX model, ZW49 (left panel) or ZW33 (right panel) were administered at 3 mg/kg on days 0 and 14 (indicated by the red arrows; n=7 (ZW49) or n=15 (ZW33) mice/group).

ZW49 was evaluated in a single-dose pharmacokinetic and tolerability study and a repeat-dose toxicology study in non-human primates. In the toxicology study, ZW49 was administered at 9 or 12 mg/kg every two weeks for five weeks. Based on the results of this study, the no observed adverse effect level, or NOAEL, of ZW49 was determined to be 12 mg/kg. For comparison, the NOAEL for ZW33 was determined to be 3 mg/kg when administered weekly for 38 weeks. The combination of improved anti-tumor activity and tolerability suggests that ZW49 has a wider therapeutic window relative to ZW33 and may address the unmet medical need in patients with low to intermediate HER2-expressing tumors. For these reasons, ZW49 is being advanced in lieu of our prior product candidate, ZW33.

Anticipated Clinical Development of ZW49

We plan to evaluate ZW49 as a monotherapy in a non-randomized, open-label Phase 1 clinical trial in patients with HER2 High breast and other HER2-expressing cancers, whose disease has progressed after all standard of care therapies. We intend to file an IND Application for ZW49 in 2018.

The primary objective of the planned Phase 1 clinical trial will be to characterize the safety, tolerability, pharmacokinetics and maximum tolerated dose of ZW49. The secondary objectives for the trial will include evaluation of preliminary anti-tumor activity of ZW49, as well as an exploration of potential biomarkers of response. Based upon the observed safety and activity, subsequent development may focus on patients with HER2 High breast or HER2 High gastric cancer as well as early lines of therapy in patients whose tumors express lower levels of HER2 and are ineligible for treatment with HER2-targeted therapies, such as trastuzumab, pertuzumab, and T-DM1.

Other Azymetric Product Candidates

We maintain ongoing discovery efforts to identify and test new target combinations, product candidates and platform technologies that have the potential to address unmet clinical needs. We have developed multiple undisclosed preclinical product candidates targeting a combination of known and novel tumor antigens based on our platform technologies. All of these candidates remain unpartnered. From this pool of discovery candidates, we plan to identify and advance multiple programs into clinical trials in the future.

Strategic Partnerships and Collaborations

Our Strategic Partnerships

Our unique combination of proprietary protein engineering capabilities and resulting therapeutic platform technologies was initially recognized by Merck and Lilly, with whom we established strategic partnerships focused on our Azymetric and EFECT therapeutic platforms. We subsequently entered into broader strategic partnerships with Celgene and GSK and a collaboration and cross-licensing agreement with Daiichi Sankyo. Following the completion of the initial agreements with Merck, Lilly and GSK, the relationships were subsequently expanded to include either additional licenses or therapeutic platforms. Most recently, we executed a licensing and collaboration agreement with Janssen to develop and commercialize next generation bispecific antibody therapeutics. These relationships provide our strategic partners with access to components of our proprietary Azymetric and EFECT therapeutic platforms for their development of a defined number of protein therapeutics, for which we will not have ownership. These strategic partnerships have provided us with non-dilutive funding as well as access to proprietary therapeutic assets, which increase our ability to rapidly advance our product candidates while maintaining worldwide commercial rights to our wholly owned therapeutic pipeline. To date, we have received over $75.8 million in the form of non-refundable upfront payments and milestone payments and are additionally eligible to receive up to $1.6 billion in preclinical and development milestone payments and $3.7 billion in commercial milestone payments available under our existing collaboration agreements, as well as tiered royalties on potential future product sales. It is possible, however, that our strategic partners' programs do not advance as currently contemplated, which would negatively affect the amount of development and commercial milestone payments and royalties on potential future product sales we may receive. Importantly, these partnerships include predominantly non-target-exclusive licenses for any of our therapeutic platforms; thus we are free to develop therapeutics to many high-value targets utilizing our platforms.

Merck

In August 2011, we entered into a research and license agreement with Merck, which was amended and restated in December 2014, to develop and commercialize three bispecific antibodies generated through the use of the Azymetric and EFECT platforms. Under the terms of the agreement, we granted Merck a worldwide, royalty-bearing antibody sequence pair exclusive license to research, develop and commercialize certain licensed products. We are eligible to receive up to $190.75 million, including an upfront payment ($1.25 million received in 2011), research milestone payments totaling $3.5 million ($2.0 million and $1.5 million received in 2012 and 2013, respectively), payments for completion of IND-enabling studies of up to $6.0 million, development milestone payments of up to $66.0 million and commercial milestone payments of up to $114.0 million. In addition, we are eligible to receive tiered royalties in the low to mid-single digits on product sales, with the royalty term being, on a product-by-product and country-by-country basis, either (i) for as long as there is Zymeworks patent coverage on products, or (ii) for five years, beginning from the first commercial sale, whichever period is longer. If there is no Zymeworks patent coverage on products, royalty rates will be reduced.

Under the agreement, we are sharing certain research and development responsibilities with Merck to generate bispecific antibodies with the Azymetric and EFECT platforms. Merck provides funding for a portion of our internal and external research costs in support of the collaboration. After the conclusion of the research program, Merck will be solely responsible for the further research, development, manufacturing and commercialization of the products.

The agreement contains customary termination rights for Merck and us including the right for Merck to terminate the agreement in its sole discretion with advance notice to us. The agreement will terminate on the later of: (a) the expiry of the last patent covering a Merck licensed product excluding methods of making the product; or (b) the expiry of the royalty payment obligations by Merck. During the research term, the agreement will terminate if the antibodies do not achieve all the research milestones or if Merck elects to not further develop the antibodies after the research term.

Lilly (2013)

In December 2013, we entered into a licensing and collaboration agreement with Lilly to research, develop and commercialize one bispecific antibody, with an option for a second antibody, generated through the use of the Azymetric platform. Under the terms of the agreement, we granted Lilly a worldwide, royalty-bearing antibody target pair-specific exclusive license to research, develop and commercialize certain licensed products. We are eligible to receive up to $103.0 million, including an upfront payment ($1.0 million received in 2013) and per product potential milestone payments, comprised of research milestone payments totaling $1.0 million ($1.0 million received in 2015), IND submission milestone payments of $2.0 million, development milestone payments of $8.0 million and commercial milestone payments of $40 million. In addition, we are eligible to receive tiered royalties in the low to mid-single digits on product sales, with the royalty term being, on a product-by-product and country-by-country basis, either (i) for as long as there is Zymeworks platform patent coverage on products, or (ii) for 10 years, beginning from the first commercial sale, whichever period is longer. If there is no Zymeworks patent coverage on products, royalty rates may be potentially reduced. In 2017 Lilly nominated a bispecific candidate from this agreement for preclinical development.

Under the agreement, we are sharing certain research and development responsibilities with Lilly to generate bispecific antibodies with the Azymetric platform. Lilly provides funding for a portion of our internal and external research costs in support of the collaboration. After the conclusion of the research program, Lilly will be solely responsible for the further research, development, manufacturing, and commercialization of the products.

The agreement contains customary termination rights for Lilly and us including the right for Lilly to terminate the agreement in its sole discretion with advance notice to us. The agreement will terminate on a product-by-product and country-by-country basis upon the latter of the product being no longer covered by certain patents related to the Lilly licensed product, or 10 years after the first commercial sale of the Lilly licensed product in such a country.

Lilly (2014)

In October 2014, we entered into a second licensing and collaboration agreement with Lilly to research, develop and commercialize three bispecific antibodies generated through the use of the Azymetric platform. This agreement did not alter or amend the initial agreement entered in 2013. Under the terms of the agreement, we granted Lilly a worldwide, royalty-bearing antibody target-pair exclusive (for two bispecific antibodies) and an antibody sequence pair-specific (for one bispecific antibody) license to research, develop and commercialize certain licensed products. In 2017 Lilly nominated a bispecific candidate from this agreement for preclinical development and discontinued the development of two other bispecific antibodies due to strategic portfolio realignment in those particular disease areas. We have updated our projections and are currently eligible to receive up to $125.0 million, comprised of research milestone payments of up to $2.0 million ($2.0 million earned in 2016), IND submission milestone payments of up to $8.0 million, development milestone payments of up to $20.0 million and commercial milestone payments of up to $95.0 million. In addition, we are eligible to receive tiered royalties in the low to mid-single digits on product sales, with the royalty term being, on a product-by-product and country-by-country basis, either (i) for as long as there is Zymeworks platform patent coverage on products, or (ii) for 10 years, beginning from the first commercial sale, whichever period is longer. If there is no Zymeworks patent coverage on products, royalty rates may be potentially reduced. In conjunction with this collaboration agreement, Lilly purchased approximately $24.0 million of our common shares.

Under the agreement, we are sharing certain research and development responsibilities with Lilly to generate bispecific antibodies with the Azymetric platform. We are responsible for our internal and external research costs in support of this collaboration. After the conclusion of the research program, Lilly will be solely responsible for the further research, development, manufacturing and commercialization of the products.

The agreement contains customary termination rights for Lilly and us with advance notice to us, in addition to (i) both Lilly and us have certain rights to terminate on a program by program basis due to scientific failure, (ii) Lilly can terminate the agreement on a target pair by target pair basis in its sole discretion after the payment of the initial license fee for such a target pair, (iii) Lilly can terminate the agreement or specific target pairs due to an incurable material breach by us, and under specific conditions, Lilly shall have certain rights to continue the research, development and commercialization of products with their license payment, milestone and royalty obligations reduced by 50% and (iv) Lilly shall have the right to terminate the agreement or specific target pairs in the event of us undergoing a change of control, while retaining certain rights. If the affected research programs have not completed specific research stages, Lilly’s obligations to the license payments, milestones and royalties shall be reduced in a tiered fashion ranging from 25-75%.

Celgene

In December 2014, we entered into a collaboration agreement with Celgene to research, develop and commercialize up to eight bispecific antibodies generated through the use of the Azymetric platform. Under the terms of the agreement, we granted Celgene a right to exercise options to worldwide, royalty-bearing, antibody sequence pair-specific exclusive licenses to research, develop and commercialize certain licensed products. We received an upfront payment of $8.0 million, which was accounted for as upfront collaboration consideration received in 2014. Celgene has the right to exercise options on up to eight programs and if Celgene opts in on a program, we are eligible to receive up to $164.0 million per product candidate (up to $1.3 billion for all eight programs), comprised of a commercial license option payment of $7.5 million, development milestone payments of up to $101.5 million and commercial milestone payments of up to $55.0 million. No development or commercial milestone payments or royalties have been received to date.

In addition, we are eligible to receive tiered royalties in the low to mid-single digits on product sales, with the royalty term being, on a product-by-product and country-by-country basis, either (i) for as long as there is Zymeworks platform patent coverage on products, or (ii) for 10 years, beginning from the first commercial sale, whichever period is longer. Celgene also has the right, prior to the first dosing of a patient in a Phase 3 clinical trial for a product, to buy down the royalty to a flat low-single digit rate with a payment of $10.0 million per percentage point. In addition to this collaboration agreement, the parties also entered into an equity subscription agreement under which Celgene paid $8.6 million for common shares.

Under the agreement, we are collaborating with Celgene to generate and develop a number of bispecific antibodies during the research program, the term of which expires in April 2018 but can be extended by Celgene by 24 months if Celgene makes an additional payment. After the conclusion of the research program, Celgene will be solely responsible for the further research, development, manufacturing and commercialization of the products.

The agreement contains customary termination rights for Celgene and us including the right of Celgene to terminate the agreement in its entirety or on a product-by-product basis in its sole discretion with advance notice to us. The agreement will terminate on a product-by-product and country-by-country basis upon the later of the expiration of the last-expiring patent related to the Celgene licensed product, or 10 years after the first commercial sale of the Celgene licensed product in such a country. If Celgene does not exercise its option for the commercial license, the agreement will terminate on a product-by-product basis for which the option was not exercised.

GSK (2015)

In December 2015, we entered into a collaboration and license agreement with GSK to research, develop and commercialize up to 10 new Fc-engineered monoclonal and bispecific antibodies generated through the use of the EFECT and Azymetric platforms. Under the terms of the agreement, we granted GSK a worldwide, royalty-bearing antibody target-exclusive license to new intellectual property generated to the EFECT platform under this collaboration and a non-exclusive license to the Azymetric platform to research, develop and commercialize future licensed products. We are eligible to receive up to $1.1 billion, including research, development and commercial milestone payments of up to $110.0 million for each product. In addition, we are eligible to receive tiered royalties in the low-single digits on net sales of products, with the royalty term being, on a product-by-product and country-by-country basis, either (i) for as long as there is Zymeworks patent coverage on products or certain joint patent coverage on products, or (ii) for 10 years beginning from the first commercial sale, whichever period is longer. If there is no Zymeworks patent coverage or certain joint patent coverage on products, royalty rates will be reduced. No development or commercial milestone payments or royalties have been received to date. We retained the right to develop up to four products, free of royalties, using the new intellectual property generated in this collaboration, and after a period of time, to grant licenses to such intellectual property for development of additional products by third parties.

Under the collaboration and license agreement, we are sharing certain research and development responsibilities with GSK to generate new Fc-engineered antibodies. Each party will bear its own costs for the responsibilities assigned to it during the research period. After the conclusion of the research period, each party will be solely responsible for the further research, development, manufacturing and commercialization of its own respective products. The research period will terminate when the “research collaboration plan” (as defined in the collaboration and license agreement) is complete or on December 1, 2018, whichever is earlier. During the term of the agreement and solely based on the outcome of the research collaboration, we have granted GSK exclusive rights to develop and commercialize monospecific antibodies against targets nominated by GSK. If GSK develops bispecific antibodies using its own platform approaches, we have granted GSK exclusive rights to develop and commercialize such antibodies comprising of specific antibody sequence pairs.

The agreement contains customary termination rights for GSK and us including the right for GSK to terminate the agreement in its sole discretion with advance notice to us, after the research period has advanced beyond a specified stage, and allowing the parties to terminate the agreement by mutual agreement during the research period. If GSK elects not to advance any product into research and development, the agreement will terminate at the end of the research period. If GSK elects to advance one or more products incorporating intellectual property generated under the research period for further research and development, the agreement will terminate on a product-by-product and country-by-country basis upon the latter of the product being no longer covered by a patent related to the GSK licensed product, or 10 years after the first commercial sale of the GSK licensed product in such a country.

GSK (2016)

In April 2016, we entered into a licensing agreement with GSK to research, develop and commercialize up to six bispecific antibodies generated through the use of the Azymetric platform. This may include bispecific antibodies incorporating new engineered Fc regions generated under the 2015 GSK agreement outlined in the preceding section. Under the terms of this agreement, we granted GSK a worldwide, royalty-bearing antibody sequence pair-specific exclusive license to research, develop and commercialize licensed products. We are eligible to receive up to $908.0 million, including an upfront payment as a technology access fee ($6.0 million received in 2016), research milestone payments of up to $30.0 million, development milestone payments of up to $152.0 million and commercial milestone payments of up to $720.0 million. In addition, we are eligible to receive tiered royalties in the low to mid-single digits on product sales, with the royalty term being, on a product-by-product and country-by-country basis, either (i) for as long as there is Zymeworks patent coverage on products, or (ii) for 10 years beginning from the first commercial sale, whichever period is longer. If there is no Zymeworks patent coverage on products, royalty rates may be potentially reduced. No research, development or commercial milestone payments or royalties have been received to date. GSK has the right, prior to the first dosing of a patient in a Phase 3 clinical trial for a product, to buy down the royalty payable on such product by only 1% with a payment of $10.0 million.

Under the agreement, GSK will bear all responsibility and all costs associated with research, development and commercialization of products generated using the Azymetric platform.

The agreement contains customary termination rights for GSK and us including the right for GSK to terminate the agreement in its sole discretion with advance notice to us. Termination provisions allow for GSK to terminate the agreement or specific antibody sequence pairs due to an incurable material breach by us, and under specific conditions, GSK shall have certain rights to continue the research, development, and commercialization of products with their license payment, milestone, and royalty obligations reduced by 50%.

Daiichi Sankyo

In September 2016, we entered into a collaboration and cross-license agreement with Daiichi Sankyo to research, develop and commercialize one bispecific antibody generated through the use of the Azymetric and EFECT platforms. Under the terms of the agreement, we granted Daiichi Sankyo a worldwide, royalty-bearing antibody sequence pair-specific exclusive license to research, develop and commercialize certain licensed products. We are eligible to receive up to $149.9 million, including an upfront payment as a technology access fee of $2.0 million (received in 2016), research ($1.0 million received in 2017) and development milestone payments and a commercial option payment totaling up to $67.9 million and commercial milestone payments of up to $80.0 million. In addition, we are eligible to receive tiered royalties ranging from the low single digits up to 10% on product sales, with the royalty term being, on a product-by-product and country-by-country basis, either (i) for as long as there is Zymeworks platform patent coverage on products, or (ii) for 10 years beginning from the first commercial sale, whichever period is longer. No research, development or commercial milestone payments or royalties have been received to date. We also gained non-exclusive rights to develop and commercialize up to three products using Daiichi Sankyo’s proprietary immune-oncology antibodies, with royalties in the low single digits to be paid to Daiichi Sankyo on sales of such products.

Under the agreement, we are sharing certain research and development responsibilities with Daiichi Sankyo to generate bispecific antibodies with the Azymetric platform. Daiichi Sankyo is responsible for our internal and external research costs in support of this collaboration during the research program term. After the research program term, Daiichi Sankyo will be solely responsible for the further research, development, manufacturing and commercialization of the products. Under the non-exclusive immuno-oncology antibody license to Zymeworks, we are solely responsible for all research, development and commercialization of the resulting products.

The agreement contains customary termination rights for Daiichi and us including the right for Daiichi to terminate the rights to our therapeutic platforms in its sole discretion with advance notice to us and for us to terminate our rights to Daiichi's antibodies with advance notice to Daiichi. The agreement shall terminate, with respect to Daiichi's license, if Daiichi fails to exercise its option or, on a product-by-product basis, until expiration of Daiichi's royalty obligations.

Janssen

In November 2017, we entered into a collaboration agreement with Janssen to research, develop and commercialize up to six bispecific antibodies generated through the use of the Azymetric and EFECT platforms. Under the terms of the agreement, we granted Janssen a worldwide, royalty-bearing, antibody sequence pair-specific exclusive license to research, develop and commercialize certain products. We are eligible to receive up to $1.45 billion, including an upfront payment of $50.0 million (received in 2017), development milestone payments of up to $282.0 million and commercial milestone payments of up to $1.12 billion. In addition, we are eligible to receive tiered royalties in the mid-single digits on product sales, with the royalty term being, on a product-by-product and country-by-country basis, either (i) for as long as there is Zymeworks platform patent coverage on products, or (ii) for 10 years, beginning from the first commercial sale, whichever period is longer. If there is no Zymeworks patent coverage on products, royalty rates may be potentially reduced. No development or commercial milestone payments or royalties have been received to date. Janssen has the right, prior to the first dosing of a patient in a Phase 3 clinical trial for a product, to buy down the royalty relating to such product by only 1% with a payment of $10.0 million. Janssen also has the option to develop two additional bispecific antibodies under this agreement subject to a future option payment. Under the agreement, Janssen will be solely responsible for the research, development, manufacturing and commercialization of the products.

The agreement contains customary termination rights for Janssen and us including the right for Janssen to terminate the agreement in its sole discretion with advance notice to us. The agreement will terminate, on a product-by-product basis, on the expiry of the royalty term for the product. Furthermore, if Janssen does not designate an antibody sequence pair during the research program term, the agreement will also terminate.

Intellectual Property

Our business success will depend significantly on our ability to:

- secure, maintain and enforce patent and other proprietary protection for our core technologies, inventions and know-how;
- obtain and maintain licenses to key third-party intellectual property owned by such third parties;
- preserve the confidentiality of our trade secrets; and
- operate without infringing upon valid, enforceable third-party patents and other rights.

We seek to secure and maintain patent protection for the composition of matter, manufacturing processes and methods of use for our drug candidates and for our underlying protein engineering capabilities and therapeutic platforms including Azymetric, ZymeLink, EFECT, AlbuCORE and ZymeCAD. We also utilize trade secrets, careful monitoring and limited disclosure of our proprietary information where patent protection is not appropriate. We also protect our proprietary information by ensuring that our employees, consultants, contractors and other advisors execute agreements requiring non-disclosure and assignment of inventions prior to their engagement. We will continue to expand our intellectual property holdings by seeking patent protection for new compositions of matter, new features and applications of our core therapeutic platforms, and innovative new therapeutic platforms, in the United States and other jurisdictions. We will also supplement internal innovation through in-licensing of new technologies and compositions of matter as appropriate. We intend to take advantage of any available data exclusivity, market exclusivity, patent term adjustment and patent term extensions.

We routinely monitor the status of existing and emerging intellectual property disclosed by third parties that may impact our business, and to the extent we identify any such disclosures, by evaluating them and taking appropriate courses of action.

As of December 31, 2017, our patent portfolio consists of 51 active patent families. Of these, 21 families relate to our key product candidates and programs including ZW25, ZW49 and our therapeutic platform technology, described elsewhere in this Annual Report on Form 10-K. The remaining 30 patent families relate to other earlier stage potential product candidates or platforms that we do not consider material to our business at this time. Three of our patent families are co-owned with VAR2 Pharmaceuticals ApS, and one patent family is co-owned with the National Research Council Canada. None of these co-owned patent families relate to our therapeutic platforms or our lead product candidates, ZW25 and ZW49, and they are not material to our business. We do not have a contract with VAR2 Pharmaceuticals ApS covering the co-owned patents. We have 34 issued patents, 12 of which are U.S. patents, and all of which are owned by us.

Therapeutic Antibody Portfolio

Our therapeutic antibody patent portfolio is directed to specific compositions of matter and methods of treatment for our product candidates, including target-specific interactions and immunomodulatory mechanisms.

- ***ZW25 and ZW49:*** We own the ZW25 and ZW49 patent portfolio, including an international patent application filed under the Patent Cooperation Treaty, or PCT, that is now in the national phase with applications pending in Australia, Brazil, Canada, China, Europe, India, Japan, Korea, Mexico, Russia and the United States. This application relates to the composition of matter, methods of making and uses of biparatopic anti-HER2 bispecific antibodies and ADCs, and if issued, is expected to expire in 2034, absent any adjustments or extensions. An additional PCT application is directed to additional treatment methods using ZW25.

ZW25 and ZW49 are also protected by our two patent families relating to the Azymetric Fc, as described below.

Therapeutic Platform Technology Portfolio

The therapeutic platform technology portfolio includes biological formats and variants thereof, including the Azymetric platform, the ZymeLink platform, the EFECT platform, the AlbuCORE platform and specific applications, manufacturing methods and assays related to the platform constructs and underlying computational chemistry.

- ***Azymetric:*** We own a portfolio of six patent families relating to the Azymetric platform for engineering Fc and Fab constructs for the development of bispecific antibodies.

  Azymetric Fc: Two of the patent families relate to engineered antibody Fc region polypeptides having amino acid substitutions that preferentially form heterodimers, with PCT national phase applications pending or issued in Australia, Brazil, Canada, China, Europe, India, Japan, Korea, Mexico, Russia and the United States. One U.S. patent has issued with 1,102 days of patent term adjustment and is expected to expire on November 10, 2034. A second U.S. patent has issued with 372 days of patent term adjustment and is expected to expire on November 9, 2033. If issued, the remaining patents in these families are expected to expire between 2031 and 2032, absent any adjustments or extensions. An additional issued U.S. patent covers method of expressing antibodies containing heterodimeric Fc regions in cells.

Azymetric Fab: Four patent families (two in the PCT national phase in Australia, Brazil, Canada, China, Europe, India, Japan, Korea, Mexico, Russia and the United States, one PCT application and one U.S. provisional application) relate to antibodies having amino acid substitutions in Fab-region heavy and light chains for making correctly paired bispecific antibodies. These patent families are directed to compositions, methods of producing and uses of heterodimeric antibodies. If issued, patents in these families are expected to expire between 2031 and 2038, absent any adjustments or extensions.

- ***ZymeLink:*** We own the ZymeLink patent portfolio relating to novel toxin molecules and novel linkers by means of which these toxins can be conjugated to antibodies and other protein scaffolds. Two PCT applications are in the national phase in key jurisdictions, including Australia, Brazil, Canada, China, Europe, India, Israel, Japan, Korea, Mexico, South Africa and the United States, and are directed to novel hemiasterlin toxin derivatives, novel linker compositions, hemiasterlin-linker compositions, and antibody-hemiasterlin conjugate compositions, one of which has issued in the United States. An additional PCT application is directed to novel auristatin derivatives, auristatin-linker compositions and antibody-auristatin conjugates and is in the national phase in Australia, Brazil, Canada, China, Europe, India, Israel, Japan, Korea, Mexico, Russia, Singapore and the United States. We also own a PCT application directed to novel tubulysin derivatives, tubulysin-linker conjugates and antibody-tubulysin conjugates. Any patents that may issue from these families are expected to expire between 2034 and 2037, absent any adjustments or extensions.
- ***EFECT:*** The EFECT platform for engineering Fc constructs with modulated FcgR-binding and Fc effector function is protected by two PCT patent applications, which we own, both of which are in the national stage and are pending in key jurisdictions, including Australia, Brazil, Canada, China, Europe, India, Japan, Russia and the United States. One patent has issued in the United States. These patent families are directed to compositions of matter and methods of making Fc constructs with altered FcgR-binding and Fc effector function; if issued, they are expected to expire between 2031 and 2034, absent any adjustments or extensions.
- ***AlbuCORE:*** We own two PCT national phase patent applications relating to engineered multivalent human serum albumin AlbuCORE which are pending in Australia, Canada, China, Europe, India, Japan and the U.S. Two patents have issued in the U.S. The patents in these families, if issued, are expected to expire between 2032 and 2033, absent any adjustments or extensions.
- ***Computational Chemistry:*** We own a portfolio of 13 families of computational chemistry patents and patent applications which relate to the computational and algorithmic advances incorporated into the ZymeCAD suite of applications, including advances in general molecular modeling, conformational dynamics, docking, distal mutations, and molecular packing, as well as parallelization and graphical data analysis. Four of these patents have issued in the United States. Any patents that issue from these families are expected to expire between 2027 and 2035, absent any adjustments or extensions.

Technology Licensing and In-Licensed Intellectual Property

We identify and selectively enter into technology licensing agreements and intellectual property in-licensing agreements to support pipeline advancement. Selected agreements include:

- ***CDRD Ventures Inc. (CVI; 2016):*** We entered into an assignment agreement with CVI, as part of our 2016 acquisition of Kairos Therapeutics Inc., or Kairos, to have all of CVI's interests in the Kairos patents and intellectual property assigned to Zymeworks. We may be required to make future payments to CVI for ZW49 or other product candidates upon the direct achievement of certain clinical development milestones for products incorporating certain Kairos intellectual property, as well as low-single digit royalty payments on the net sales of such products. For out-licensed products and technologies incorporating certain Kairos intellectual property, we may be required to pay CVI a mid-single digit percentage of the future revenue as a result of a revenue sharing agreement. We are not currently required to make any payments to CVI under this agreement.

- ***Innovative Targeting Solutions Inc. (ITS; 2016):*** We entered into a non-exclusive licensing agreement with ITS which grants us the right to use ITS' HuTARG discovery platform for the generation of therapeutic antibodies and other protein therapeutics. Pursuant to this agreement, ITS granted us a non-exclusive, worldwide, sub-licensable commercial license to its technology for the development of our internal therapeutic programs. This agreement requires us to make licensing payments to ITS of up to $12.0 million over the five years following August 2016.
- ***Selexis (2015):*** We entered into a commercial agreement with Selexis under which we were granted rights to manufacture and commercialize product candidates, including ZW25 and ZW49, using a proprietary Selexis cell line. Licensing terms include an annual license maintenance fee, and clinical, regulatory, and commercial milestones based on sales thresholds.

Manufacturing

We rely on third-party contract manufacturing organizations to provide manufacturing, linker-toxin conjugation, and fill-finish services in order to generate all of the therapeutic antibody supply required for our non-clinical and clinical studies. To retain focus on our expertise in developing new product candidates, we do not currently plan to develop or operate in-house manufacturing capacity. Our bispecific therapeutic antibody candidates require standard manufacturing and chemistry manufacturing and control, or CMC, processes typical of those required for monoclonal antibody manufacturing. We therefore expect to continue to be able to develop product candidates that can be manufactured in a cost-effective fashion by our network of well-validated third-party contract manufacturing organizations.

Through our contract manufacturing organizations, we currently have sufficient supply of our product candidates to carry out ongoing and planned preclinical studies. We also have sufficient cGMP-grade supply of ZW25, together with planned additional manufacturing runs, to complete our Phase 1 clinical trial. cGMP manufacturing of ZW49 is ongoing and anticipated to be completed on time to supply materials for GLP toxicology study and Phase 1 clinical trial. We plan to identify redundant suppliers and manufacturing, toxin conjugation, and fill-finish services for all development products candidates prior to submission to the FDA.

Competition

The biopharmaceutical industry is characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. While we believe that our technology, knowledge, experience and scientific resources provide us with competitive advantages, we face potential competition from many different sources, including major pharmaceutical, specialty pharmaceutical and biotechnology companies, academic institutions and governmental agencies and public and private research institutions. Any product candidates that we successfully develop and commercialize will compete with existing therapies and new therapies that may become available in the future.

With respect to target discovery activities, competitors and other third parties, including academic and clinical researchers, may be able to access rare families and identify targets before we do.

Many of the companies against which we compete or against which we may compete in the future have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved products than we do. Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaboration arrangements with large and established companies. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites, recruiting patients for clinical trials, and by acquiring technologies complementary to, or necessary for, our programs.

The key competitive factors affecting the success of all of our product candidates, if approved, are likely to be their efficacy, safety, convenience and price, the effectiveness of alternative products, the level of competition and the availability of coverage and adequate reimbursement from government and other third-party payors.

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products or therapies that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than any products that we may develop. Our competitors also may obtain FDA, European Medicines Agency, or EMA, or other regulatory approval for their products more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market. In addition, our ability to compete may be affected in many cases by insurers or other third-party payors seeking to encourage the use of generic products.

Our product candidates will compete with the therapies and currently marketed drugs discussed below.

- ***ZW25:*** ZW25 is intended to treat patients with solid tumors that express HER2, including breast cancer patients with tumors expressing low to intermediate levels of HER2. Approved HER2-targeted therapies include Roche's Herceptin, Perjeta, and Kadcyla as well as Novartis' Tykerb and Puma Biotechnology's Nerlynx, although none of these drugs are effective in treating tumors expressing low to intermediate levels of HER2. Currently, these patients may receive hormone therapy or cytotoxic chemotherapy including combinations of anthracyclines, taxanes, capecitabine and cyclophosphamide. We believe ZW25 will be a more effective and better tolerated therapy. There are other non-HER2 targeting monoclonal antibodies on the market that may have activity on tumors expressing low to intermediate levels of HER2 including Merck's Keytruda, Bristol-Myer Squibb's Opdivo, Roche's Tecentriq, Merck KGaA's Bavencio and AstraZeneca's Imfinzi; however, none of these agents are currently approved in breast or ovarian cancer, and only Keytruda is approved in gastric cancer (albeit as third-line salvage therapy in patients that are PD-L1 positive). Since antibodies blocking PD-1/PD-L1 are relatively well-tolerated and have a different mechanism of action than ZW25, if approved in these indications, we believe PD-1/PD-L1 blockade could potentially be used in combination with ZW25 to achieve even higher response rates.
- ***ZW49:*** ZW49 is intended to treat patients with HER2-expressing breast cancer or other solid tumors that have progressed on, are refractory to, or are not eligible to receive existing HER2-targeted therapies. Roche's Kadcyla as well as combinations of Herceptin, Tykerb and capecitabine are some of the currently approved treatments. We believe that ZW49 could potentially be a more effective therapy than Kadcyla based on our comparisons in preclinical models.

The FDA and corresponding regulatory authorities will ultimately review our clinical results and determine whether our product candidates are effective. No regulatory agency has made any such determination that any of our product candidates are effective for use by the general public for any indication.

Government Regulation

Government authorities in the United States, at the federal, state and local level, and in other countries extensively regulate, among other things, the research, development, testing, manufacturing, quality control, approval, labeling, packaging, storage, record-keeping, promotion, advertising, distribution, post-approval monitoring and reporting, marketing and export and import of products such as those we are developing. Our ADC product candidates are comprised of both a drug product and a biologic product, and will therefore be subject to regulation in the United States as combination products. If marketed individually, each component would be subject to different regulatory pathways and would require approval of independent marketing applications by the FDA. A combination product, however, is assigned to an FDA center that will have primary jurisdiction over its regulation based on a determination of the combination product's primary mode of action, which is the single mode of action that provides the most important therapeutic action. In the case of our ADCs, we believe that the primary mode of action is attributable to the biologic component of the product. We believe our other product candidates will be regulated as therapeutic biologics, with the FDA's Center for Drug Evaluation and Research, or CDER, having primary jurisdiction over premarket development.

Biological products are subject to regulation under the Federal Food, Drug, and Cosmetic Act, or FD&C Act, and the Public Health Service Act, or PHS Act, and other federal, state, local and foreign statutes and regulations. Our product candidates must be approved by the FDA before they may be legally marketed in the United States and by the appropriate foreign regulatory agency before they may be legally marketed in foreign countries.

U.S. Biological Products Development Process

The process required by the FDA before a biologic may be marketed in the United States generally involves the following:

- completion of extensive nonclinical, sometimes referred to as preclinical, laboratory tests and preclinical animal trials and applicable requirements for the humane use of laboratory animals and formulation studies in accordance with applicable regulations, including good laboratory practices, or GLPs;
- submission to the FDA of an IND application, which must become effective before human clinical trials may begin;
- performance of adequate and well-controlled human clinical trials according to the FDA's regulations commonly referred to as good clinical practice, or GCP, regulations and any additional requirements for the protection of human research subjects and their health information, to establish the safety and efficacy of the proposed biological product for its intended use;
- submission to the FDA of a Biologics License Application, or BLA, for marketing approval that includes substantive evidence of safety, purity, and potency from results of nonclinical testing and clinical trials;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities where the biological product is produced to assess compliance with cGMP requirements to assure that the facilities, methods and controls are adequate to preserve the biological product's identity, strength, quality and purity;
- potential FDA audit of the nonclinical and clinical study sites that generated the data in support of the BLA; and
- FDA review and approval, or licensure, of the BLA.

Before testing any biological product candidate in humans, the product candidate enters the preclinical testing stage. Preclinical tests, also referred to as nonclinical studies, include laboratory evaluations of product chemistry, toxicity and formulation, as well as animal studies to assess the potential safety and activity of the product candidate. The conduct of the preclinical tests must comply with federal regulations and requirements including GLPs.

The clinical study sponsor must submit the results of the preclinical tests, together with manufacturing information, analytical data, any available clinical data or literature and a proposed clinical protocol, to the FDA as part of the IND. Some preclinical testing may continue even after the IND is submitted. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA places the clinical study on a clinical hold within that 30-day time period. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical study can begin. The FDA may also impose clinical holds on a biological product candidate at any time before or during clinical trials due to safety concerns or non-compliance. If the FDA imposes a clinical hold, trials may not recommence without FDA authorization and then only under terms authorized by the FDA.

Clinical trials involve the administration of the biological product candidate to healthy volunteers or patients under the supervision of qualified investigators, generally physicians not employed by or under the study sponsor's control. Clinical trials are conducted under protocols detailing, among other things, the objectives of the clinical study, dosing procedures, subject selection and exclusion criteria, and the parameters to be used to monitor subject safety, including stopping rules that assure a clinical study will be stopped if certain adverse events should occur. Each protocol and any amendments to the protocol must be submitted to the FDA as part of the IND. Clinical trials must be conducted and monitored in accordance with the FDA's regulations comprising the GCP requirements, including the requirement that all research subjects provide informed consent. Further, each clinical study must be reviewed and approved by an independent institutional review board, or IRB, at or servicing each institution at which the clinical study will be conducted. An IRB is charged with protecting the welfare and rights of study participants and considers such items as whether the risks to individuals participating in the clinical trials are minimized and are reasonable in relation to anticipated benefits. The IRB also approves the form and content of the informed consent that must be signed by each clinical study subject or his or her legal representative and must monitor the clinical study until completed.

Human clinical trials are typically conducted in three sequential phases that may overlap or be combined:

- ***Phase 1.*** The biological product candidate is initially introduced into healthy human volunteers and tested for safety. In the case of some products for severe or life-threatening diseases, especially when the product may be too inherently toxic to ethically administer to healthy volunteers, the initial human testing is often conducted in patients.
- ***Phase 2.*** The biological product candidate is evaluated in a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance, optimal dosage and dosing schedule.
- ***Phase 3.*** Clinical trials are undertaken to further evaluate dosage, clinical efficacy, potency, and safety in an expanded patient population at geographically dispersed clinical study sites. These clinical trials are intended to establish the overall risk/benefit ratio of the product and provide an adequate basis for product labelling.

Post-approval clinical trials, sometimes referred to as Phase 4 clinical trials, may be conducted after initial marketing approval. These clinical trials are used to gain additional experience from the treatment of patients in the intended therapeutic indication, particularly for long-term safety follow-up.

During all phases of clinical development, regulatory agencies require extensive monitoring and auditing of all clinical activities, clinical data, and clinical study investigators. Annual progress reports detailing the results of the clinical trials must be submitted to the FDA. Written IND safety reports must be promptly submitted to the FDA and the investigators for serious and unexpected adverse events, any findings from other trials, tests in laboratory animals or *in vitro* testing that suggest a significant risk for human subjects, or any clinically important increase in the rate of a serious suspected adverse reaction over that listed in the protocol or investigator brochure. The sponsor must submit an IND safety report within 15 calendar days after the sponsor determines that the information qualifies for reporting. The sponsor also must notify the FDA of any unexpected fatal or life-threatening suspected adverse reaction within seven calendar days after the sponsor's initial receipt of the information.

The FDA or the sponsor or its data safety monitoring board may suspend a clinical study at any time on various grounds, including a finding that the research subjects or patients are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical study at its institution if the clinical study is not being conducted in accordance with the IRB's requirements or if the biological product candidate has been associated with unexpected serious harm to patients.

There are also requirements governing the reporting of ongoing clinical trials and completed clinical trial results to public registries.

Sponsors of clinical trials of FDA-regulated products, including biologics, are required to register and disclose certain clinical trial information, which is publicly available at www.clinicaltrials.gov. Information related to the product, patient population, phase of investigation, study sites and investigators, and other aspects of the clinical trial is then made public as part of the registration. Sponsors are also obligated to discuss the results of their clinical trials after completion. Disclosure of the results of these trials can be delayed until the new product or new indication being studied has been approved.

Concurrent with clinical trials, companies usually complete additional animal trials and must also develop additional information about the physical characteristics of the biological product candidate as well as finalize a process for manufacturing the product in commercial quantities in accordance with GMP requirements. To help reduce the risk of the introduction of adventitious agents with use of biological products, the PHS Act emphasizes the importance of manufacturing control for products whose attributes cannot be precisely defined. The manufacturing process must be capable of consistently producing quality batches of the product candidate and, among other things, the sponsor must develop methods for testing the identity, strength, quality, potency and purity of the final biological product. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the biological product candidate does not undergo unacceptable deterioration over its shelf life.

U.S. Review and Approval Processes

After the completion of clinical trials of a biological product candidate, FDA approval of a BLA must be obtained before commercial marketing of the biological product. The BLA must include results of product development, laboratory and animal trials, human trials, information on the manufacture and composition of the product, proposed labeling and other relevant information. In addition, under the Pediatric Research Equity Act, or PREA, a BLA or supplement to a BLA must contain data to assess the safety and effectiveness of the biological product candidate 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 Food and Drug Administration Safety and Innovation Act, or FDASIA, requires that a sponsor who is planning to submit a marketing application for a drug or biological product that includes a new active ingredient, new indication, new dosage form, new dosing regimen or new route of administration submit an initial Pediatric Study Plan, or PSP, within 60 days after an End-of-Phase 2 meeting or as may be agreed between the sponsor and FDA. Unless otherwise required by regulation, PREA does not apply to any biological product for an indication for which Orphan Drug Designation has been granted.

Under the Prescription Drug User Fee Act, or PDUFA, as amended, each BLA must be accompanied by a user fee. The FDA adjusts the PDUFA user fees on an annual basis. Fee waivers or reductions are available in certain circumstances, including a waiver of the application fee for the first application filed by a small business. Additionally, no user fees are assessed on BLAs for products designated as orphan drugs, unless the product also includes a non-orphan indication.

Within 60 days following submission of the application, the FDA reviews a BLA submitted to determine if it is substantially complete before the agency accepts it for filing. The FDA may refuse to file any BLA that it deems incomplete or not properly reviewable at the time of submission and may request additional information. In this event, the BLA must be resubmitted with the additional information. The resubmitted application also is subject to review before the FDA accepts it for filing. Once the submission is accepted for filing, the FDA begins an in-depth substantive review of the BLA. The FDA reviews the BLA to determine, among other things, whether the proposed product is safe and potent, or effective, for its intended use, and has an acceptable purity profile, and whether the product is being manufactured in accordance with cGMP requirements to assure and preserve the product's identity, safety, strength, quality, potency and purity. The FDA may refer applications for novel biological products or biological products that present difficult questions of safety or efficacy to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation and a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions. During the biological product approval process, the FDA also will determine whether a Risk Evaluation and Mitigation Strategy, or REMS, is necessary to assure the safe use of the biological product candidate. If the FDA concludes a REMS is needed, the sponsor of the BLA must submit a proposed REMS; the FDA will not approve the BLA without a REMS, if required.

Before approving a BLA, the FDA will inspect the facilities at which the product is manufactured. The FDA will not approve the product unless it determines that the manufacturing processes and facilities are in compliance with GMP requirements and adequate to assure consistent production of the product within required specifications. Additionally, before approving a BLA, the FDA will typically inspect one or more clinical sites to assure that the clinical trials were conducted in compliance with IND study requirements and GCP requirements.

Notwithstanding the submission of relevant data and information, the FDA may ultimately decide that the BLA does not satisfy its regulatory criteria for approval and deny approval. Data obtained from clinical trials are not always conclusive and the FDA may interpret data differently than the applicant interprets the same data. If the FDA decides not to approve the BLA in its present form, the FDA will issue a complete response letter that usually describes all of the specific deficiencies in the BLA identified by the FDA. The deficiencies identified may be minor, for example, requiring labeling changes, or major, for example, requiring additional clinical trials. Additionally, the complete response letter may include recommended actions that the applicant might take to place the application in a condition for approval. If a complete response letter is issued, the applicant may either resubmit the BLA, addressing all of the deficiencies identified in the letter, or withdraw the application.

If a product receives regulatory approval, the approval may be significantly limited to specific diseases and dosages or the indications for use may otherwise be limited, which could restrict the commercial value of the product. Further, the FDA may require that certain contraindications, warnings or precautions be included in the product labeling. The FDA may impose restrictions and conditions on product distribution, prescribing, or dispensing in the form of a REMS, or otherwise limit the scope of any approval. In addition, the FDA may require post-marketing clinical trials, sometimes referred to as Phase 4 clinical trials, designed to further assess a biological product's safety and effectiveness, and testing and surveillance programs to monitor the safety of approved products that have been commercialized.

Orphan Drug Designation

The FDA may grant Orphan Drug Designation to drugs or biologics intended to treat a rare disease or condition that affects fewer than 200,000 individuals in the United States, or if it affects more than 200,000 individuals in the United States, there is no reasonable expectation that the cost of developing and marketing the product for this type of disease or condition will be recovered from sales in the United States. Orphan Drug Designation must be requested before submitting a BLA. After the FDA grants Orphan Drug Designation, the identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA. Orphan Drug Designation does not convey any advantage in or shorten the duration of the regulatory review and approval process.

In the United States, Orphan Drug Designation entitles a party to financial incentives such as opportunities for grant funding towards clinical trial costs, tax advantages and user-fee waivers. In addition, if a product receives the first FDA approval for the indication for which it has Orphan Drug Designation, the product is entitled to orphan exclusivity, which means the FDA may not approve any other application to market the same product for the same indication for a period of seven years, except in limited circumstances, such as a showing of clinical superiority over the product with orphan exclusivity or where the manufacturer with orphan exclusivity is unable to assure sufficient quantities of the approved orphan designated product. Competitors, however, may receive approval of different products for the indication for which the orphan product has exclusivity or obtain approval for the same product candidates but for a different indication for which the orphan product has exclusivity. Orphan product exclusivity also could block the approval of one of our product candidates for seven years if a competitor obtains approval of the same biological product, as defined by the FDA, or if our product candidate is determined to be contained within the competitor's product for the same indication or disease. If a drug or biological product designated as an orphan product receives marketing approval for an indication broader than what is designated, it may not be entitled to orphan product exclusivity.

The FDA Reauthorization Act, which was enacted in August 2017, requires, among other things, that certain orphan drugs for cancer be tested for children. The government has also increased focus on the potential misuse of the orphan drug approval process to increase the price of orphan drugs.

Post-Approval Requirements

Maintaining substantial compliance with applicable federal, state and local statutes and regulations requires the expenditure of substantial time and financial resources. Rigorous and extensive FDA regulation of biological products continues after approval, particularly with respect to cGMP requirements. We will rely, and expect to continue to rely, on third parties for the production of clinical and commercial quantities of any products that we may commercialize. Manufacturers of our products are required to comply with applicable requirements in the cGMP regulations, including quality control and quality assurance and maintenance of records and documentation.

Other post-approval requirements applicable to biological products include record-keeping requirements, reporting of adverse effects and reporting updated safety and efficacy information.

We also must comply with the FDA's advertising and promotion requirements, such as those related to direct-to-consumer advertising, the prohibition on promoting products for uses or in patient populations that are not described in the product's approved labelling (known as "off-label use"), industry-sponsored scientific and educational activities and promotional activities involving the internet. Discovery of previously unknown problems or the failure to comply with the applicable regulatory requirements may result in restrictions on the marketing of a product or withdrawal of the product from the market as well as possible civil or criminal sanctions. Failure to comply with the applicable U.S. requirements at any time during the product development process, approval process or after approval, may subject an applicant or manufacturer to administrative or judicial civil or criminal sanctions and adverse publicity. FDA sanctions could include refusal to approve pending applications, withdrawal of an approval, clinical hold, warning or untitled letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, mandated corrective advertising or communications with doctors, debarment, restitution, disgorgement of profits, or civil or criminal penalties.

Biological product manufacturers and other entities involved in the manufacture and distribution of approved biological products are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with cGMP requirements and other laws. Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain GMP compliance. In addition, changes to the manufacturing process or facility generally require prior FDA approval before being implemented and other types of changes to the approved product, such as adding new indications and additional labeling claims, are also subject to further FDA review and approval.

Biosimilars and Exclusivity

The Patient Protection and Affordable Care Act, or PPACA, signed into law on March 23, 2010, includes a subtitle called the Biologics Price Competition and Innovation Act of 2009, or BPCIA, which created an abbreviated approval pathway for biological products that are biosimilar to or interchangeable with an FDA-licensed reference biological product. The FDA has issued several guidance documents outlining an approach to review and approval of biosimilars.

Biosimilarity, which requires that there be no clinically meaningful differences between the biological product and the reference product in terms of safety, purity and potency, can be shown through analytical studies, animal studies and a clinical study or studies. Interchangeability requires that a product is biosimilar to the reference product and the product must demonstrate that it can be expected to produce the same clinical results as the reference product in any given patient and, for products that are administered multiple times to an individual, the biologic and the reference biologic may be alternated or switched after one has been previously administered without increasing safety risks or risks of diminished efficacy relative to exclusive use of the reference biologic. However, complexities associated with the larger, and often more complex, structures of biological products, as well as the processes by which such products are manufactured, pose significant hurdles to implementation of the abbreviated approval pathway that are still being worked out by the FDA.

Under the BPCIA, an application for a biosimilar product may not be submitted to the FDA until four years following the date that the reference product was first licensed by the FDA. In addition, the approval of a biosimilar product may not be made effective by the FDA until 12 years from the date on which the reference product was first licensed. During this 12-year period of exclusivity, another company may still market a competing version of the reference product if the FDA approves a full BLA for the competing 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. The BPCIA also created certain exclusivity periods for biosimilars approved as interchangeable products. At this juncture, it is unclear whether products deemed "interchangeable" by the FDA will, in fact, be readily substituted by pharmacies, which are governed by state pharmacy law.

A biological product can also obtain pediatric market exclusivity in the United States. Pediatric exclusivity, if granted, adds six months to existing exclusivity periods and patent terms. This six-month exclusivity, which runs from the end of other exclusivity protection or patent term, may be granted based on the voluntary completion of a pediatric study in accordance with an FDA-issued "Written Request" for such a study.

The BPCIA is complex and only beginning to be interpreted and implemented by the FDA. In addition, recent government proposals have sought to reduce the 12-year reference product exclusivity period. Other aspects of the BPCIA, some of which may impact the BPCIA exclusivity provisions, have also been the subject of recent litigation. As a result, the ultimate impact, implementation and meaning of the BPCIA are subject to significant uncertainty.

Canadian Review and Approval Process

In Canada, our biologic product candidates and our research and development activities are primarily regulated by the *Food and Drugs Act* and the rules and regulations thereunder, which are enforced by Health Canada (including its Biologics and Genetic Therapies Directorate). Health Canada regulates, among other things, the research, development, testing, manufacture, packaging, storage, recordkeeping, labeling, advertising, promotion, distribution, post-approval monitoring, marketing and import and export of pharmaceutical products. Drug approval laws require licensing of manufacturing facilities, carefully controlled research and testing of products, government review and approval of experimental results prior to giving approval to sell drug products including biologic drug products. Regulators also typically require that rigorous and specific standards such as Good Manufacturing Practices, Good Laboratory Practices, or GLP, and Good Clinical Practices, or GCP, are followed in the manufacture, testing and clinical development, respectively, of any drug product. The processes for obtaining regulatory approvals in Canada, along with subsequent compliance with applicable statutes and regulations, require the expenditure of substantial time and financial resources.

The principal steps required for drug approval in Canada is as follows:

Preclinical Toxicology Studies

Non-clinical studies are conducted *in vitro* and in animals to evaluate pharmacokinetics, metabolism and possible toxic effects to provide evidence of the safety of the drug candidate prior to its administration to humans in clinical studies and throughout development. Such studies are conducted in accordance with applicable laws and GLP.

Initiation of Human Testing

In Canada, the process of conducting clinical trials with a new drug cannot begin until we have submitted a Clinical Trial Application, or CTA, and the required number of days has lapsed without objection from Health Canada. Biological drugs carry additional risks, as compared to traditional small molecule drugs, associated with complexity and variability in manufacturing that can contribute to increased lot-to-lot variation of the final product, and with the potential for adventitious agents. Therefore, the content requirements for the quality information for biological drugs to be used in clinical trials are different from those for standard small molecule pharmaceutical drugs (for example, the inclusion of information on manufacturing facilities is required for biological drugs). In addition, it is necessary to have more stringent controls on the release of biologic drug lots used in authorized clinical trials.

Similar regulations apply in Canada to a CTA as to an IND in the United States. Once approved, two key factors influencing the rate of progression of clinical trials are the rate at which patients can be enrolled to participate in the research program and whether effective treatments are currently available for the disease that the drug is intended to treat. Patient enrollment is largely dependent upon the incidence and severity of the disease, the treatments available and the potential side effects of the drug to be tested and any restrictions for enrollment that may be imposed by regulatory agencies.

Clinical Trials

Similar regulations apply in Canada regarding clinical trials as in the United States. In Canada, Research Ethics Boards, or REBs, instead of IRBs, are used to review and approve clinical trial plans. Clinical trials involve the administration of an investigational new drug to human subjects under the supervision of qualified investigators in accordance with current Good Clinical Practices, or cGCP, requirements, which include review and approval by REBs. Clinical trials are conducted under protocols detailing, among other things, the objectives of the trial, the trial procedures, the parameters to be used in monitoring safety and the efficacy criteria to be evaluated and a statistical analysis plan. Human clinical trials are typically conducted in three sequential phases, as discussed above in the context of government regulation in the United States.

The manufacture of investigational drugs for the conduct of human clinical trials is subject to current Good Manufacturing Practice, or cGMP, requirements. Investigational drugs and active pharmaceutical ingredients imported into Canada are also subject to regulation by Health Canada relating to their labeling and distribution. Progress reports detailing the results of the clinical trials must be submitted at least annually to Health Canada and the applicable REBs, and more frequently if serious adverse events occur. Phase 1, Phase 2 and Phase 3 clinical trials may not be completed successfully within any specified period, or at all. Furthermore, in Canada, Health Canada or the sponsor may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research subjects are being exposed to an unacceptable health risk. Similarly, an REB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the REB's requirements or if the drug has been associated with unexpected serious harm to subjects. Additionally, some clinical trials are overseen by an independent group of qualified experts organized by the clinical trial sponsor, known as a data safety monitoring board or committee. This group regularly reviews accumulated data and advises the study sponsor regarding the continuing safety of trial subjects, potential trial subjects and the continuing validity and scientific merit of the clinical trial. We may also suspend or terminate a clinical trial based on evolving business objectives or competitive climate.

New Drug Application

Upon successful completion of Phase 3 clinical trials, in Canada the company sponsoring a new drug then assembles all the preclinical and clinical data and other testing relating to the product's pharmacology, chemistry, manufacture, and controls, and submits it to Health Canada as part of a New Drug Submission, or NDS. The NDS is then reviewed by Health Canada for approval to market the drug.

As part of the approval process, Health Canada will inspect the facility or the facilities at which the drug is manufactured. Health Canada will not approve the product unless compliance with cGMP—a quality system regulating manufacturing—is satisfactory and the NDS contains data that provide substantial evidence that the drug is safe and effective in the indication studied. In addition, before approving an NDS, Health Canada will typically inspect one or more clinical sites to assure compliance with GCP.

The testing and approval process for an NDS requires substantial time, effort and financial resources, and may take several years to complete. Biologic drugs, such as our candidates, differ from standard small molecule drugs in that applicants must include more detailed chemistry and manufacturing information. This is necessary to help ensure the purity and quality of the product, for example to help ensure that it is not contaminated by an undesired microorganism. Data obtained from preclinical and clinical testing are not always conclusive and may be susceptible to varying interpretations, which could delay, limit or prevent regulatory approval. Health Canada may not grant approval of an NDS on a timely basis, or at all. In Canada, NDSs are subject to user fees and these fees are typically increased annually to reflect inflation.

Even if Health Canada approves a product candidate, the relevant authority may limit the approved indications for use of the product candidate, require that contraindications, warnings or precautions be included in the product labeling, including a black box warning, require that post-approval studies, including Phase 4 clinical trials, be conducted to further assess a drug's safety after approval, require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution restrictions or other risk management mechanisms.

Biologic products in particular are monitored post-approval by being placed on a lot release schedule tailored to their potential risk, manufacturing, testing and inspection history to date. With higher risk biologics, each lot is tested before being released for sale in Canada. Moderate risk biologics are periodically tested at the discretion of Health Canada while manufacturers of low risk biologics usually only need to contact Health Canada regarding lots being sold or for providing certification of complete and satisfactory testing. Products are carefully scrutinized before they are placed in any level of the lot release process, and at any time the testing regime for a biologic may be altered.

Health Canada may prevent or limit further marketing of a product based on the results of post-marketing studies 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, notification, and regulatory authority review and approval. Further, should new safety information arise, additional testing, product labeling or regulatory notification may be required.

Subsequent Entry Biologics and Exclusivity

The term subsequent entry biologic, or SEB, is used by Health Canada to describe a biologic drug that enters the market subsequent to a version previously authorized in Canada and with demonstrated similarity to a reference biologic drug. Accordingly, a SEB (known internationally as a biosimilar) will in all instances be a subsequent entrant onto the Canadian market.

Based on Health Canada guidance documents, a SEB can rely in part on prior information regarding safety and efficacy that is deemed relevant due to the demonstration of similarity to the reference biologic drug and which influences the amount and type of original data required. Generic drugs are chemically derived products that are pharmaceutically equivalent to innovative drugs, whereas SEBs are products of a biologic nature that are similar to innovative biologics. According to Health Canada, it is not currently possible to demonstrate that two biologic drugs are pharmaceutically equivalent, and therefore the regulatory approval process for generics and SEBs is different: SEBs are approved using the standard NDS pathway with some allowances made for reduced safety and efficacy information set out in guidance documents, while generic drugs are approved using an abbreviated new drug submission pathway set in guidance law. In part because it continues to be set out only in guidance and not law, the pathway for receiving SEB approval is somewhat in flux and subject to some uncertainty.

As discussed above, all SEBs enter the market subsequent to a biologic drug product previously approved in Canada and to which the SEB is considered similar. As such, SEBs are subject to existing laws and regulations outlined in the *Patented Medicines (Notice of Compliance) Regulations* and the *Food and Drug Regulations*, and related guidance documents.

Similar to the *Hatch-Waxman Act* in the United States, Canada has the *Patented Medicines (NOC) Regulations* which require a company that files a drug submission that references a patented product to address any relevant patents listed on the Patent Register prior to being able to receive approval from Health Canada. The Canadian regime is similar to the United States regime, but a number of distinctions do exist.

Like the United States, Canada also has data protection, but again differences exist between the two jurisdictions. For example, Canada’s data protection applies to “innovative drugs” (i.e., a drug that contains a medicinal ingredient not previously approved in a drug by the Minister of Health and that is not a variation of a previously approved medicinal ingredient such as a salt, ester, enantiomer, solvate or polymorph) and, where it exists, lasts for eight years in most (but not all) circumstances. In general biologics can be considered innovative drugs but SEBs are not.

Additional Regulation

In addition to the foregoing, provincial, state and federal U.S. and Canadian laws regarding environmental protection and hazardous substances affect our business. These and other laws govern our use, handling and disposal of various biological, chemical and radioactive substances used in, and wastes generated by, our operations. If our operations result in contamination of the environment or expose individuals to hazardous substances, we could be liable for damages and governmental fines. We believe that we are in material compliance with applicable environmental laws and that continued compliance therewith will not have a material adverse effect on our business. We cannot predict, however, how changes in these laws may affect our future operations.

Government Regulation Outside of the United States

In addition to regulations in the United States, we will be subject to a variety of regulations in other jurisdictions governing, among other things, clinical studies and any commercial sales and distribution of our products.

Whether or not we obtain FDA approval for a product, we must obtain the requisite approvals from regulatory authorities in foreign countries prior to the commencement of clinical studies or marketing of the product in those countries. Certain countries outside of the United States have a similar process that requires the submission of a clinical study application much like the IND prior to the commencement of human clinical studies. In the European Union, or EU, for example, a clinical trial application, or CTA, must be submitted to each country's national health authority and an independent ethics committee, much like the FDA and the IRB, respectively. Once the CTA is approved in accordance with a country's requirements, clinical study development may proceed.

The requirements and process governing the conduct of clinical studies, product licensing, coverage, pricing and reimbursement vary from country to country. In all cases, the clinical studies are conducted in accordance with GCP and the applicable regulatory requirements and the ethical principles that have their origin in the Declaration of Helsinki.

Pharmaceutical Coverage, Pricing and Reimbursement

Significant uncertainty exists as to the coverage and reimbursement status of any product candidates for which we may obtain regulatory approval. In the United States and markets in other countries, sales of any products for which we receive regulatory approval for commercial sale will depend, in part, on the availability of coverage and adequate reimbursement from third-party payors. Third-party payors include government programs such as Medicare or Medicaid, managed care plans, private health insurers, and other organizations. These third-party payors may deny coverage or reimbursement for a product or therapy in whole or in part if they determine that the product or therapy was not medically appropriate or necessary. Third-party payors may attempt to control costs by limiting coverage to specific drug products on an approved list, or formulary, which might not include all of the FDA-approved drug products for a particular indication, and by limiting the amount of reimbursement for particular procedures or drug treatments. Additionally, coverage and reimbursement for drug products can differ significantly from payor to payor. The Medicare and Medicaid programs are often used as models by private payors and other governmental payors to develop their coverage and reimbursement policies for drugs and biologics. However, one third-party payor's decision to cover a particular drug product does not ensure that other payors will also provide coverage for the product, or will provide coverage at an adequate reimbursement rate.

The cost of pharmaceuticals continues to generate substantial governmental and third-party payor interest. We expect that the pharmaceutical industry will experience pricing pressures due to the trend toward managed healthcare, the increasing influence of managed care organizations and additional legislative proposals. Third-party payors are increasingly challenging the price and examining the medical necessity and cost-effectiveness of medical products and services, in addition to their safety and efficacy. We may need to conduct expensive pharmacoeconomic studies in order to demonstrate the medical necessity and cost-effectiveness of our products to obtain third-party payor coverage, in addition to the costs required to obtain the FDA approvals. Our product candidates may not be considered medically necessary or cost effective. A payor's decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Adequate third-party reimbursement may not be available to enable us to maintain price levels sufficient to realize an appropriate return on our investment in product development.

Some third-party payors also require pre-approval of coverage for new or innovative drug therapies before they will reimburse healthcare providers who use such therapies. While we cannot predict whether any proposed cost-containment measures will be adopted or otherwise implemented in the future, these requirements or any announcement or adoption of such proposals could have a material adverse effect on our ability to obtain adequate prices for our product candidates and to operate profitably.

In international markets, reimbursement and healthcare payment systems vary significantly by country, and many countries have instituted price ceilings on specific products and therapies. There can be no assurance that our products will be considered medically reasonable and necessary for a specific indication, that our products will be considered cost effective by third-party payors, that coverage or an adequate level of reimbursement will be available or that third-party payors' reimbursement policies will not adversely affect our ability to sell our products profitably.

Healthcare Reform

The United States and some foreign jurisdictions are considering or have enacted a number of legislative and regulatory proposals to change the healthcare system in ways that could affect our ability to sell our future products profitably. Among policy makers and payors in the United States and elsewhere, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality or expanding access. In the United States, the pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by major legislative initiatives.

In March 2010, the PPACA was enacted, which includes measures that have significantly changed, or will significantly change, the way healthcare is financed by both governmental and private insurers. Among the provisions of the PPACA of importance to the pharmaceutical industry are the following:

- an annual, non-deductible fee on any entity that manufactures or imports certain branded prescription drugs and biologic agents, apportioned among these entities according to their market share in certain government healthcare programs;
- an increase in the rebates a manufacturer must pay under the Medicaid Drug Rebate Program to 23.1% of the average manufacturer price, or AMP, for branded drugs or the difference between AMP and best price, whichever is greater. For generic drugs the rebate is 13%;
- Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts to negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period;
- extension of manufacturers' Medicaid rebate liability to covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations;
- expansion of eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to additional individuals and by adding new mandatory eligibility categories;
- requirement that applicable manufacturers and group purchasing organizations report annually to the U.S. Department of Health and Human Services, or HHS, information regarding certain payments and other transfers of value given to physicians and teaching hospitals, and any ownership or investment interest physicians, or their immediate family members, have in their company;
- a requirement to annually report drug samples that manufacturers and distributors provide to physicians;
- expansion of healthcare fraud and abuse laws, including the False Claims Act and the Anti-Kickback Statute, new government investigative powers, and enhanced penalties for noncompliance;
- a licensure framework for follow-on biologic products;
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research; and
- establishment of a Center for Medicare & Medicaid Innovation at CMS to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription drug spending.

Since its enactment, there have been judicial and Congressional challenges to certain aspects of the PPACA, including recent tax legislation that removed the financial penalties for people who do not carry health insurance. There is still uncertainty whether the PPACA will undergo additional revisions, and we cannot predict the impact of any future modifications, and it is uncertain how any such proposals, if approved, would affect these provisions.

In addition, other legislative changes have been proposed and adopted since the PPACA was enacted. These changes include aggregate reductions to Medicare payments to providers of up to 2% per fiscal year pursuant to the Budget Control Act of 2011, which began in 2013 and will remain in effect through 2025 unless additional Congressional action is taken. The American Taxpayer Relief Act of 2012, among other things, further reduced Medicare payments to several providers, including hospitals and cancer treatment centers, 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, which could have a material adverse effect on customers for our product candidates, if approved, and, accordingly, our financial operations. Also, there has been heightened governmental scrutiny recently over the manner in which drug manufacturers set prices for their marketed products, which have resulted in several Congressional inquiries and proposed bills designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drug products.

We expect that the PPACA, as well as other healthcare reform measures that may be adopted in the future, may result in more rigorous coverage criteria and lower reimbursement, and in additional downward pressure on the price that we receive for any approved product. Any reduction in reimbursement from Medicare or other government-funded programs may result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability or commercialize our drugs, once regulatory approval is obtained.

Other Healthcare Laws and Compliance Requirements

In the United States, the research, manufacturing, distribution, sale and promotion of drug products are potentially subject to regulation by various federal, state and local authorities in addition to the FDA, including the Centers for Medicare & Medicaid Services, other divisions of the U.S. Department of Health and Human Services (e.g., the Office of Inspector General), the U.S. Department of Justice, state Attorneys General, and other state and local government agencies. For example, sales, marketing and scientific/educational grant programs must comply with fraud and abuse laws such as the federal Anti-Kickback Statute, as amended, the federal False Claims Act, as amended, and similar state laws. Pricing and rebate programs must comply with the Medicaid Drug Rebate Program requirements of the Omnibus Budget Reconciliation Act of 1990, as amended, and the Veterans Health Care Act of 1992, as amended. If products are made available to authorized users of the Federal Supply Schedule of the General Services Administration, additional laws and requirements apply. All of these activities are also potentially subject to federal and state consumer protection and unfair competition laws.

The federal Anti-Kickback Statute prohibits any person, including a prescription drug manufacturer (or a party acting on its behalf), from knowingly and willfully soliciting, receiving, offering or providing remuneration, directly or indirectly, to induce or reward either the referral of an individual, or the furnishing, recommending, or arranging for a good or service, for which payment may be made under a federal healthcare program such as the Medicare and Medicaid programs. This statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on one hand and prescribers, purchasers, and formulary managers on the other. The term “remuneration” is not defined in the federal Anti-Kickback Statute and has been broadly interpreted to include anything of value, including for example, gifts, discounts, the furnishing of supplies or equipment, credit arrangements, payments of cash, waivers of payments, ownership interests and providing anything at less than its fair market value. Although there are a number of statutory exemptions and regulatory safe harbors protecting certain business arrangements from prosecution, the exemptions and safe harbors are drawn narrowly, and practices that involve remuneration intended to induce prescribing, purchasing or recommending may be subject to scrutiny if they do not qualify for an exemption or safe harbor. Our practices may not in all cases meet all of the criteria for safe harbor protection from federal Anti-Kickback Statute liability. The reach of the Anti-Kickback Statute was broadened by the PPACA, which, among other things, amends the intent requirement of the federal Anti-Kickback Statute such that a person or entity no longer needs to have actual knowledge of this statute or specific intent to violate it in order to have committed a violation. In addition, the PPACA provides that the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal False Claims Act (discussed below) or the civil monetary penalties statute, which imposes fines against any person who is determined to have presented or caused to be presented claims to a federal healthcare program that the person knows or should know is for an item or service that was not provided as claimed or is false or fraudulent. Additionally, many states have adopted laws similar to the federal Anti-Kickback Statute, and some of these state prohibitions apply to referral of patients for healthcare items or services reimbursed by any third-party payor, not only the Medicare and Medicaid programs in at least some cases, and do not contain safe harbors.

The federal False Claims Act imposes liability on any person or entity that, among other things, knowingly presents, or causes to be presented, a false or fraudulent claim for payment by a federal healthcare program. The qui tam provisions of the federal False Claims Act allow a private individual to bring civil actions on behalf of the federal government alleging that the defendant has submitted a false claim to the federal government, and to share in any monetary recovery. In recent years, the number of suits brought by private individuals has increased dramatically. In addition, various states have enacted false claims laws analogous to the federal False Claims Act. Many of these state laws apply where a claim is submitted to any third-party payor and not merely a federal healthcare program. There are many potential bases for liability under the federal False Claims Act. Liability arises, primarily, when an entity knowingly submits, or causes another to submit, a false claim for reimbursement to the federal government. The federal False Claims Act has been used to assert liability on the basis of inadequate care, kickbacks and other improper referrals, improperly reported government pricing metrics such as Best Price or Average Manufacturer Price, improper use of Medicare numbers when detailing the provider of services, improper promotion of off-label uses (i.e., uses not expressly approved by FDA in a drug's label), and allegations as to misrepresentations with respect to the services rendered. Our future activities relating to the reporting of discount and rebate information and other information affecting federal, state and third party reimbursement of our products, and the sale and marketing of our products and our service arrangements or data purchases, among other activities, may be subject to scrutiny under these laws. We are unable to predict whether we would be subject to actions under the federal False Claims Act or a similar state law, or the impact of such actions. However, the cost of defending such claims, as well as any sanctions imposed, could adversely affect our financial performance. Also, HIPAA created several additional federal crimes, including healthcare fraud and false statements relating to healthcare matters. The healthcare fraud statute prohibits knowingly and willfully executing a scheme to defraud any healthcare benefit program, including private third-party payors. The false statements statute prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services.

In addition, we may be subject to, or our marketing activities may be limited by, data privacy and security regulation by both the federal government and the states in which we conduct our business. For example, the Health Insurance Portability and Accountability Act of 1996, or HIPAA, and its implementing regulations established uniform federal standards for certain "covered entities" (healthcare providers, health plans and healthcare clearinghouses) governing the conduct of certain electronic healthcare transactions and protecting the security and privacy of protected health information. The American Recovery and Reinvestment Act of 2009, commonly referred to as the economic stimulus package, included expansion of HIPAA's privacy and security standards called the Health Information Technology for Economic Clinical Health Act, or HITECH. Among other things, HITECH makes HIPAA's privacy and security standards directly applicable to "business associates"— independent contractors or agents of covered entities that create, receive, maintain, or transmit protected health information in connection with providing a service for or on behalf of a covered entity. HITECH also increased the civil and criminal penalties that may be imposed against covered entities, business associates and possibly other persons, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorney's fees and costs associated with pursuing federal civil actions.

Under the federal Physician Payments Sunshine Act, which was enacted as part of the PPACA, certain drug manufacturers are required to track and annually report to the federal government certain payments and other transfers of value made to physicians and other healthcare professionals and teaching hospitals and ownership or investment interests held by physicians and their immediate family members. There are also an increasing number of state "sunshine" laws that require manufacturers to make reports to states on pricing and marketing information. Several states have enacted legislation requiring pharmaceutical companies to, among other things, establish marketing compliance programs, file periodic reports with the state, make periodic public disclosures on sales, marketing, pricing, clinical trials and other activities, or register their sales representatives, as well as to prohibit pharmacies and other healthcare entities from providing certain physician prescribing data to pharmaceutical companies for use in sales and marketing, and to prohibit certain other sales and marketing practices. These laws may affect our future sales, marketing, and other promotional activities by imposing administrative and compliance burdens on us. If we fail to track and report as required by these laws or otherwise comply with these laws, we could be subject to the penalty provisions of the pertinent state and federal authorities.

Because of the breadth of these laws and the narrowness of available statutory and regulatory exemptions, it is possible that some of our business activities could be subject to challenge under one or more of such laws. If our operations are found to be in violation of any of the federal and state laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including criminal and significant civil monetary penalties, damages, fines, disgorgement, imprisonment, exclusion from participation in government healthcare programs, injunctions, recall or seizure of products, total or partial suspension of production, denial or withdrawal of pre-marketing product approvals, private *qui tam* actions brought by individual whistleblowers in the name of the government or refusal to allow us to enter into supply contracts, including government contracts, 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. We may also be subject to additional reporting requirements and oversight if we become subject to a corporate integrity agreement or similar agreement with a governmental entity to resolve allegations that we have violated these laws. To the extent that any of our products are sold in a foreign country, we may be subject to similar foreign laws and regulations, which may include, for instance, applicable post-approval requirements, including safety surveillance, anti-fraud and abuse laws, and implementation of corporate compliance programs and reporting of payments or transfers of value to healthcare professionals.

Sales and Marketing

As an early-stage biopharmaceutical company, we do not currently possess the commercial infrastructure that will be required to launch and market our product candidates. To date, we have not entered into co-promotion or out-licensing agreements with established pharmaceutical companies for any of our product candidates. To access the sales, marketing and distribution capacity required to market our drug candidates, we plan to selectively establish partnerships with biotechnology and pharmaceutical companies having established commercial capabilities in relevant indications. The timing and nature of such agreements will be determined by market size and complexity, access to pre-commercial and commercial infrastructure and our resource availability for developing a commercial organization. For product candidates targeting patient populations that can be serviced by a small, specialized commercial effort, we may seek out co-development and co-promotion agreements granting commercialization rights to an established commercial partner in some jurisdictions while allowing us to build these capabilities in other jurisdictions.

Employees

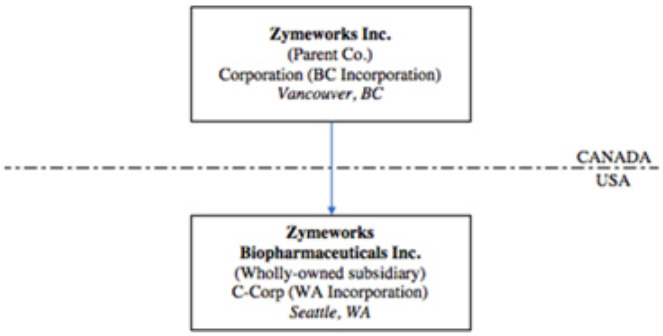
As of December 31, 2017, we had 147 employees, including 145 full-time employees, 95 of whom were primarily engaged in research and development activities and 56 of whom hold an M.D. or Ph.D. degree. 125 of our full-time employees are based in Vancouver, British Columbia and 20 in Seattle, Washington. None of our employees are represented by a labor organization or covered by a collective bargaining arrangement. We consider our relationship with our employees to be excellent.

Corporate Structure

We were incorporated on September 8, 2003 under the Canada Business Corporations Act, or CBCA, under the name “Zymeworks Inc.” On October 22, 2003, we were registered as an extra-provincial company under the Company Act (British Columbia), the predecessor to the Business Corporations Act (British Columbia), or BCBCA. On May 2, 2017, we continued the Company to British Columbia under the BCBCA.

The following reflects our organizational structure. We have one wholly owned subsidiary located in Seattle, Washington named Zymeworks Biopharmaceuticals Inc. Effective as of January 1, 2017, we completed a short-form amalgamation with our other previously wholly owned subsidiary domiciled in British Columbia, Zymeworks Biochemistry Inc.

Corporate Organizational Chart:



Our principal and registered office is located at 1385 West 8th Avenue, Suite 540, Vancouver, British Columbia, Canada V6H 3V9, and our telephone number is (604) 678-1388.

Available Information

This Annual Report on Form 10-K and our future quarterly reports on Form 10-Q and current reports on Form 8-K, and any amendments to these reports are filed, or will be filed, as appropriate, with the U.S. Securities and Exchange Commission (SEC) and the Canadian Securities Administrators (CSA). These reports are available free of charge on our website, www.zymeworks.com, as soon as reasonably practicable after we electronically file such reports with or furnish such reports to the SEC and the Canadian regulatory authorities. Information contained on, or accessible through, our website is not a part of this Annual Report on Form 10-K, and the inclusion of our website address in this document is an inactive textual reference.

Additionally, our filings with the SEC may be accessed through the SEC's website at www.sec.gov and our filings with the CSA may be accessed through the CSA's System for Electronic Document Analysis and Retrieval (SEDAR) at www.sedar.com. Our reports can also be read and copied by the public at the SEC's Public Reference Room at 100 F Street, NE., Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330.

Item 1A. Risk Factors

You should consider carefully the following risk factors, as well as the other information in this Annual Report on Form 10-K, including our consolidated financial statements and notes thereto. If any of the following risks actually occur, our business, financial conditions, results of operations and prospects could be materially adversely affected. This Annual Report on Form 10-K also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of a number of factors, including the risks described below. See "Cautionary Note Regarding Forward-Looking Statements." The risks below are not the only risks facing our company. Risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial condition, results of operations, and / or prospects.

Risks Related to Our Business and the Development and Commercialization of Our Product Candidates

We have a limited number of product candidates, all which are still in preclinical or early clinical development. If we do not obtain regulatory approval of one or more of our product candidates, or experience significant delays in doing so, our business will be materially adversely affected.

We currently have no products approved for sale or marketing in any country, and may never be able to obtain regulatory approval for any of our product candidates. As a result, we are not currently permitted to market any of our product candidates in the United States or in any other country until we obtain regulatory approval from the FDA or regulatory authorities outside the United States. Our product candidates are in early stages of development and we have not submitted an application, or received marketing approval, for any of our product candidates. Furthermore, the fact that our core competencies have been recognized through strategic partnerships does not improve our product candidates' outlook for regulatory approval. We have limited experience in conducting and managing the clinical trials necessary to obtain regulatory approvals, including approval by the FDA. Obtaining regulatory approval of our product candidates will depend on many factors, including, but not limited to, the following:

- successfully completing formulation and process development activities;
- completing clinical trials that demonstrate the efficacy and safety of our product candidates;
- receiving marketing approval from applicable regulatory authorities;
- establishing commercial manufacturing capabilities; and
- launching commercial sales, marketing and distribution operations.

Many of these factors are wholly or partially beyond our control, including clinical advancement, the regulatory submission process and changes in the competitive landscape. If we do not achieve one or more of these factors in a timely manner, we could experience significant delays or an inability to develop our product candidates at all.

Clinical trials are very expensive, time consuming and difficult to design and implement and involve uncertain outcomes. Furthermore, the results of previous preclinical studies and clinical trials may not be predictive of future results, and the results of our current and planned clinical trials may not satisfy the requirements of the FDA or non-U.S. regulatory authorities.

Positive or timely results from preclinical or early-stage trials do not ensure positive or timely results in late-stage clinical trials or product approval by the FDA or comparable foreign regulatory authorities. We will be required to demonstrate with substantial evidence through well-controlled clinical trials that our product candidates are safe and effective for use in a diverse population before we can seek regulatory approvals for their commercial sale. Our planned clinical trials may produce negative or inconclusive results, and we or any of our current and future strategic partners may decide, or regulators may require us, to conduct additional clinical or preclinical testing. Success in preclinical studies or early-stage clinical trials does not mean that future clinical trials or registration clinical trials will be successful because product candidates in later-stage clinical trials may fail to demonstrate sufficient safety and efficacy to the satisfaction of the FDA and non-U.S. regulatory authorities, despite having progressed through preclinical studies and initial clinical trials. Product candidates that have shown promising results in early clinical trials may still suffer significant setbacks in subsequent clinical trials or registration clinical trials. For example, a number of companies in the pharmaceutical industry, including those with greater resources and experience than us, have suffered significant setbacks in advanced clinical trials, even after obtaining promising results in earlier clinical trials. Similarly, preclinical interim results of a clinical trial do not necessarily predict final results.

If clinical trials for our product candidates are prolonged, delayed or stopped, we may be unable to obtain regulatory approval and commercialize our product candidates on a timely basis, or at all, which would require us to incur additional costs and delay our receipt of any product revenue.

We are currently enrolling an adaptive Phase 1 clinical trial of ZW25 in patients with recurrent or metastatic HER2-expressing solid tumors, and expect to file an IND application for ZW49 in 2018. We may experience delays in our ongoing or future preclinical studies or clinical trials, and we do not know whether future preclinical studies or clinical trials will begin on time, need to be redesigned, enroll an adequate number of patients on time or be completed on schedule, if at all. The commencement or completion of these planned clinical trials could be substantially delayed or prevented by many factors, including:

- further discussions with the FDA or other regulatory agencies regarding the scope or design of our clinical trials;
- the limited number of, and competition for, suitable sites to conduct our clinical trials, many of which may already be engaged in other clinical trial programs, including some that may be for the same indication as our product candidates;
- any delay or failure to obtain approval or agreement to commence a clinical trial in any of the countries where enrollment is planned;
- inability to obtain sufficient funds required for a clinical trial;
- clinical holds on, or other regulatory objections to, a new or ongoing clinical trial;
- delay or failure to manufacture sufficient supplies of the product candidate for our clinical trials;
- delay or failure to reach agreement on acceptable clinical trial agreement terms or clinical trial protocols with prospective sites or clinical research organizations, or CROs, the terms of which can be subject to extensive negotiation and may vary significantly among different sites or CROs; and
- delay or failure to obtain institutional review board, or IRB, approval to conduct a clinical trial at a prospective site;
- slower than expected rates of patient recruitment and enrollment;
- failure of patients to complete the clinical trial;
- the inability to enroll a sufficient number of patients in studies to ensure adequate statistical power to detect statistically significant treatment effects;
- unforeseen safety issues, including severe or unexpected drug-related adverse effects experienced by patients, including possible deaths;
- lack of efficacy during clinical trials;

- termination of our clinical trials by one or more clinical trial sites;
- inability or unwillingness of patients or clinical investigators to follow our clinical trial protocols;
- inability to monitor patients adequately during or after treatment by us or our CROs;
- our CROs or clinical study sites failing to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all, deviating from the protocol or dropping out of a study;
- the inability to produce or obtain sufficient quantities of a product candidate to complete clinical studies;
- the inability to address any noncompliance with regulatory requirements or safety concerns that arise during the course of a clinical trial;
- the need to repeat or terminate clinical trials as a result of inconclusive or negative results or unforeseen complications in testing; and
- our clinical trials may be suspended or terminated upon a breach or pursuant to the terms of any agreement with, or for any other reason by, current or future strategic partners that have responsibility for the clinical development of any of our product candidates.

Changes in regulatory requirements, policies and guidelines may also occur and we may need to significantly amend clinical trial protocols to reflect these changes with appropriate regulatory authorities. These changes may require us to renegotiate terms with CROs or resubmit clinical trial protocols to IRBs for re-examination, which may impact the costs, timing or successful completion of a clinical trial. Our clinical trials may be suspended or terminated at any time by the FDA, other regulatory authorities, the IRB overseeing the clinical trial at issue, any of our clinical trial sites with respect to that site, or us.

Any failure or significant delay in commencing or completing clinical trials for our product candidates would adversely affect our ability to obtain regulatory approval and our commercial prospects and ability to generate product revenue will be diminished.

If we are unable to enroll patients in clinical trials, we will be unable to complete these trials on a timely basis.

Patient enrollment, a significant factor in the timing of clinical trials, is affected by many factors including the size and nature of the patient population, the proximity of subjects to clinical sites, the eligibility criteria for the trial, the design of the clinical trial, ability to obtain and maintain patient consents, risk that enrolled subjects will drop out before completion, competing clinical trials and clinicians' and patients' perceptions as to the potential advantages 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. In particular, we are developing certain of our products for the treatment of rare diseases, which have limited pools of patients from which to draw for clinical testing. If we are unable to enroll a sufficient number of patients to complete clinical testing, we will be unable to gain marketing approval for such product candidates and our business will be harmed.

The design or our execution of clinical trials may not support regulatory approval.

The design or execution of a clinical trial can determine whether its results will support regulatory approval and flaws in the design or execution of a clinical trial may not become apparent until the clinical trial is well advanced. In some instances, there can be significant variability in safety or efficacy results between different trials of the same product candidate due to numerous factors, including changes in trial protocols, differences in size and type of the patient populations, adherence to the dosing regimen and other trial protocols and the rate of dropout among clinical trial participants. We do not know whether any Phase 2, Phase 3 or other clinical trials we or any of our strategic partners may conduct will demonstrate consistent or adequate efficacy and safety to obtain regulatory approval to market our product candidates.

Further, the FDA and comparable foreign regulatory authorities have substantial discretion in the approval process and in determining when or whether regulatory approval will be obtained for any of our product candidates. Our product candidates may not be approved even if they achieve their primary endpoints in future Phase 3 clinical trials or registration trials. The FDA or other non-U.S. regulatory authorities may disagree with our trial design and our interpretation of data from preclinical studies and clinical trials. In addition, any of these regulatory authorities may change requirements for the approval of a product candidate even after reviewing and providing comments or advice on a protocol for a pivotal Phase 3 clinical trial that has the potential to result in FDA or other agencies' approval. In addition, any of these regulatory authorities may also approve a product candidate for fewer or more limited indications than we request or may grant approval contingent on the performance of costly post-marketing clinical trials. The FDA or other non-U.S. regulatory authorities may not approve the labeling claims that we believe would be necessary or desirable for the successful commercialization of our product candidates.

Successful development of our current and future product candidates is uncertain and we may discontinue or reprioritize the development of any of our product candidates at any time, at our discretion.

Before obtaining regulatory approval for the commercial distribution of our product candidates, we must conduct, at our own expense, extensive preclinical tests and clinical trials to demonstrate the safety and efficacy of our product candidates in humans. Preclinical and clinical testing is expensive, difficult to design and implement, can take many years to complete and is uncertain as to outcome. Additionally, the results from nonclinical testing or early clinical trials of a product candidate may not predict the results that will be obtained in subsequent subjects or in subsequent human clinical trials of that product candidate or any other product candidate. There is a high failure rate for drugs proceeding through clinical studies. A number of companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in clinical development even after achieving promising results in earlier studies, and any such setbacks in any future clinical development could have a material adverse effect on our business and operating results. Alternatively, management may elect to discontinue development of certain product candidates to accommodate a shift in corporate strategy, despite positive clinical results. Based on our operating results and business strategy, among other factors, we may discontinue the development of any of our product candidates under development or reprioritize our focus on other product candidates at any time and at our discretion. For example, in February 2018, we elected to discontinue the development of one of our product candidates, ZW33, in favor of pursuing a new product candidate, ZW49.

Our product candidates may have undesirable side effects that may delay or prevent marketing approval or, if approval is received, require them to be taken off the market, require them to include safety warnings or otherwise limit their sales; no regulatory agency has made any such determination that any of our product candidates are safe or effective for use by the general public for any indication.

All of our product candidates are still in preclinical or early clinical development. Additionally, all of our product candidates are required to undergo ongoing safety testing in humans as part of clinical trials. Consequently, not all adverse effects of drugs can be predicted or anticipated. Unforeseen side effects from any of our product candidates could arise either during clinical development or, if approved by regulatory authorities, after the approved product has been marketed. While we believe our lead product candidates have demonstrated a favorable safety profile in animals, ZW25 has recently commenced dosing in an adaptive Phase 1 clinical trial and ZW49 has never been tested in humans. Therefore, the results from clinical trials may not demonstrate a favorable safety profile in humans. The results of future clinical trials may show that ZW25 or our other product candidates cause undesirable or unacceptable side effects, which could interrupt, delay or halt clinical trials, and result in delay of, or failure to obtain, marketing approval from the FDA and other regulatory authorities, or result in marketing approval from the FDA and other regulatory authorities with restrictive label warnings, limited patient populations or potential product liability claims. Even if we believe that our Phase 1 clinical trial and preclinical studies demonstrate the safety and efficacy of our product candidates, only the FDA and other comparable regulatory agencies may ultimately make such determination. No regulatory agency has made any such determination that any of our product candidates are safe or effective for use by the general public for any indication.

If any of our product candidates receive marketing approval and we or others later identify undesirable or unacceptable side effects caused by such products:

- regulatory authorities may require us to take our approved product off the market;

- regulatory authorities may require the addition of labeling statements, specific warnings, a contraindication or field alerts to physicians and pharmacies;
- we may be required to change the way the product is administered, conduct additional clinical trials or change the labeling of the product;
- we may be subject to limitations on how we may promote the product;
- sales of the product may decrease significantly;
- we may be subject to litigation or product liability claims; and
- our reputation may suffer.

Any of these events could prevent us or our current or future strategic partners from achieving or maintaining market acceptance of the affected product or could substantially increase commercialization costs and expenses, which in turn could delay or prevent us from generating revenue from the sale of any future products.

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

The life sciences industry is highly competitive and subject to rapid and significant technological change. We are currently developing biotherapeutics that will compete with other drugs and therapies that currently exist or are being developed. Products we may develop in the future are also likely to face competition from other drugs and therapies, some of which we may not currently be aware. We have competitors both in the United States and internationally, including major multinational pharmaceutical companies, established biotechnology companies, specialty pharmaceutical companies, universities and other research institutions. Many of our competitors have significantly greater financial, manufacturing, marketing, drug development, technical and human resources than we do. Large pharmaceutical companies, in particular, have extensive experience in clinical testing, obtaining regulatory approvals, recruiting patients and in manufacturing pharmaceutical products. These companies also have significantly greater research and marketing capabilities than we do and may also have products that have been approved or are in late stages of development and collaborative arrangements in our target markets with leading companies and research institutions. Established pharmaceutical companies may also invest heavily to accelerate discovery and development of novel compounds or to in-license novel compounds that could make the product candidates that we develop obsolete. As a result of all of these factors, our competitors may succeed in obtaining patent protection or FDA approval or discovering, developing and commercializing products in our field before we do.

Specifically, there are a large number of companies developing or marketing treatments for cancer and autoimmune disorders, including many major pharmaceutical and biotechnology companies. These treatments consist both of small molecule drug products, as well as biologics that work by using next-generation antibody therapeutic platforms to address specific cancer targets. In addition, several companies are also developing bispecific antibodies. Other companies are developing new treatments for cancer that enhance the Fc regions of antibodies to create more potent antibodies, including Macrogenics, Inc., XenCor, Inc. and F. Hoffmann-La Roche AG.

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe effects, are more convenient or are less expensive than any products that we may develop. Our competitors also may obtain FDA or other regulatory approval for their products more rapidly than we may obtain approval for our product candidates, which could result in our competitors establishing a strong market position before we are able to enter the market.

Smaller and other early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These third parties compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs. In addition, the biopharmaceutical industry is characterized by rapid technological change. If we fail to stay at the forefront of technological change, we may be unable to compete effectively. Technological advances or products developed by our competitors may render our technologies or product candidates obsolete, less competitive or not economical.

Our product candidates, for which we intend to seek approval, may face competition sooner than anticipated.

Our ability to compete may be affected in many cases by insurers or other third-party payors seeking to encourage the use of biosimilar products. Biosimilar products are expected to become available over the coming years. Even if our product candidates achieve marketing approval, they may be priced at a significant premium over competitive biosimilar products, if any have been approved by then. The Biologics Price Competition and Innovation Act of 2009, which is included in the Patient Protection and Affordable Care Act, or PPACA, authorized the FDA to approve similar versions of innovative biologics, commonly known as biosimilars. Under the PPACA, a manufacturer may submit an application for licensure of a biologic product that is "biosimilar to" or "interchangeable with" a previously approved biological product or "reference product." Manufacturers may not submit an application for a biosimilar to the FDA until four years following approval of the reference product, and the FDA may not approve a biosimilar product until 12 years from the date on which the reference product was approved. Even if a product is considered to be a reference product eligible for exclusivity, another company could market a competing version of that product if the FDA approves a full Biologics License Application, or 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. From time to time, there are proposals to repeal or modify the PPACA and it is uncertain how any such proposals, if approved, would affect these provisions.

If any of our product candidates receive regulatory approval, the approved products may not achieve broad market acceptance among physicians, patients, the medical community and third-party payors, in which case revenue generated from their sales would be limited.

The commercial success of our product candidates will depend upon their acceptance among physicians, patients and the medical community. The degree of market acceptance of our product candidates will depend on a number of factors, including:

- limitations or warnings contained in the approved labeling for a product candidate;
- changes in the standard of care for the targeted indications for any of our product candidates;
- limitations in the approved clinical indications for our product candidates;
- demonstrated clinical safety and efficacy compared to other products;
- lack of significant adverse side effects;
- sales, marketing and distribution support;
- availability of coverage and extent of reimbursement from managed care plans and other third-party payors;
- timing of market introduction and perceived effectiveness of competitive products;
- the degree of cost-effectiveness of our product candidates;
- availability of alternative therapies at similar or lower cost, including generic and over-the-counter products;
- the extent to which the product candidate is approved for inclusion on formularies of hospitals and managed care organizations;

- whether the product is designated under physician treatment guidelines as a first-line therapy or as a second- or third-line therapy for particular diseases;
- whether the product can be used effectively with other therapies to achieve higher response rates;
- adverse publicity about our product candidates or favorable publicity about competitive products;
- convenience and ease of administration of our products; and
- potential product liability claims.

If any of our product candidates are approved, but do not achieve an adequate level of acceptance by physicians, patients and the medical community, we may not generate sufficient revenue from these products, and we may not become or remain profitable. In addition, efforts to educate the medical community and third-party payors on the benefits of our product candidates may require significant resources and may never be successful.

We may be unable to obtain orphan drug exclusivity in specific indications for ZW25 or in future product candidates that we may develop. If our competitors are able to obtain orphan product exclusivity for their products in specific indications, we may not be able to have competing products approved in those indications by the applicable regulatory authority for a significant period of time.

Regulatory authorities in some jurisdictions, including the United States and Europe, may designate drugs for relatively small patient populations as orphan drugs. Under the Orphan Drug Act, the FDA may designate a product candidate as an orphan drug if it is a drug intended to treat a rare disease or condition, which is generally defined as a patient population of fewer than 200,000 individuals annually in the United States. The FDA has granted Orphan Drug Designation to ZW25 for the treatment of gastric and ovarian cancer and we may seek Orphan Drug Designation for additional indications in the future. Orphan Drug Designation neither shortens the development time or regulatory review time of a drug nor gives the drug any advantage in the regulatory review or approval process.

Generally, if a product candidate with an Orphan Drug Designation subsequently receives the first marketing approval for the indication for which it has such designation, the product is entitled to a period of marketing exclusivity, which precludes the European Medicines Agency, or EMA, or the FDA from approving another marketing application for the same drug for the same indication for that time period. The applicable period is seven years in the United States and 10 years in Europe. The European exclusivity period can be reduced to six years if a product no longer meets the criteria for Orphan Drug Designation or if the product is sufficiently profitable so that market exclusivity is no longer justified. Orphan drug exclusivity may be lost if the FDA or EMA determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantity of the product to meet the needs of patients with the rare disease or condition.

Even if we obtain orphan drug exclusivity for ZW25, or for any other product candidates that receive an Orphan Drug Designation in the future, that exclusivity may not effectively protect the product from competition because different drugs with different active moieties can be approved for the same condition. Further, in the United States, even after an orphan drug is approved, the FDA can subsequently approve the same drug for the same condition submitted by a competitor if the FDA concludes that the later drug is clinically superior in that it is shown to be safer, more effective or makes a major contribution to patient care. If we fail to maintain our current Orphan Drug Designations for our product candidate, ZW25, or for any other product candidates that receive an Orphan Drug Designation in the future, or if the FDA approves Orphan Drug Designation for similar product candidates of other pharmaceutical companies, our competitive position would be harmed.

Even if we obtain FDA approval of any of our product candidates, we may never obtain approval or commercialize such products outside of the United States, which would limit our ability to realize their full market potential.

In order to market any products outside of the United States, we must establish and comply with numerous and varying regulatory requirements of other countries regarding safety and efficacy. Clinical trials conducted in one country may not be accepted by regulatory authorities in other countries, and regulatory approval in one country does not mean that regulatory approval will be obtained in any other country. Approval procedures vary among countries and can involve additional product testing and validation and additional administrative review periods. Seeking foreign regulatory approvals could result in significant delays, difficulties and costs for us and may require additional preclinical studies or clinical trials which would be costly and time consuming. Regulatory requirements can vary widely from country to country and could delay or prevent the introduction of our products in those countries. Satisfying these and other regulatory requirements is costly, time consuming, uncertain and subject to unanticipated delays. In addition, our failure to obtain regulatory approval in any country may delay or have negative effects on the process for regulatory approval in other countries. We do not have any product candidates approved for sale in any jurisdiction, including international markets, and we do not have experience in obtaining regulatory approval in international markets. If we fail to comply with regulatory requirements in international markets or to obtain and maintain required approvals, our target market will be reduced and our ability to realize the full market potential of our products will be harmed.

Reimbursement decisions by third-party payors may have an adverse effect on pricing and market acceptance. If there is not sufficient reimbursement for our products, it is less likely that our products will be widely used.

Even if our product candidates are approved for sale by the appropriate regulatory authorities, market acceptance and sales of these products will depend on reimbursement policies and may be affected by future healthcare reform measures. Government authorities and third-party payors, such as private health insurers and health maintenance organizations, decide which drugs they will reimburse and establish payment levels. We cannot be certain that reimbursement will be available for any products that we develop. If reimbursement is not available or is available on a limited basis, we may not be able to successfully commercialize any of our approved products.

In the United States, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, also called the Medicare Modernization Act, or the MMA, changed the way Medicare covers and pays for pharmaceutical products. The legislation established Medicare Part D, which expanded Medicare coverage for outpatient prescription drug purchases by the elderly but provided authority for limiting the number of drugs that will be covered in any therapeutic class. The MMA also introduced a new reimbursement methodology based on average sales prices for physician-administered drugs. We expect to experience pricing pressures in connection with the sale of any products that we develop, due to the trend toward managed healthcare, the increasing influence of health maintenance organizations and additional legislative proposals.

There may be significant delays in obtaining coverage and reimbursement for newly approved drugs, and coverage may be more limited than the purposes for which the drug is approved by the FDA, EMA or other regulatory authorities. Moreover, eligibility for coverage and reimbursement does not imply that a drug will be paid for in all cases or at a rate that covers our costs, including research, development, manufacture, sale and distribution expenses. Interim reimbursement levels for new drugs, if applicable, may also be insufficient to cover our and any collaborator's costs and may not be made permanent. Reimbursement rates may vary according to the use of the drug and the clinical setting in which it is used, may be based on reimbursement levels already set for lower cost drugs and may be incorporated into existing payments for other services. Net prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the United States. Our or any collaborator's inability to promptly obtain coverage and profitable payment rates from both government-funded and private payors for any approved products that we or our strategic partners develop could have a material adverse effect on our operating results, our ability to raise capital needed to commercialize product candidates and our overall financial condition.

If the market opportunities for any product that we or our strategic partners develop are smaller than we believe they are, our revenue may be adversely affected and our business may suffer.

We intend to initially focus our independent product candidate development on treatments for oncology. Our projections of addressable patient populations that have the potential to benefit from treatment with our product candidates are based on estimates. If any of the foregoing estimates are inaccurate, the market opportunities for any of our product candidates could be significantly diminished and have an adverse material impact on our business.

We may expend our limited resources to pursue a particular product candidate or indication and fail to capitalize on product candidates or indications 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 research programs, therapeutic platforms and product candidates that we identify for specific indications. As a result, we may forego or delay pursuit of opportunities with other therapeutic platforms or product candidates or for other indications 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. Our spending on current and future research and development programs, therapeutic platforms and product candidates for specific indications may not yield any commercially viable products. 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 collaboration, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights.

We may not be successful in our efforts to use and expand our therapeutic platforms to build a pipeline of product candidates.

A key element of our strategy is to use and expand our therapeutic platforms to build a pipeline of product candidates and progress these product candidates through clinical development for the treatment of a variety of diseases. Although our research and development efforts to date have resulted in a pipeline of product candidates directed at various cancers, we may not be able to develop product candidates that are safe and effective. In addition, although we expect that our therapeutic platforms will allow us to develop a steady stream of product candidates, they may not prove to be successful at doing so. Even if we are successful in continuing to build our pipeline, the potential product candidates that we identify may not be suitable for clinical development, including as a result of being shown to have harmful side effects or other characteristics that indicate that they are unlikely to be products that will receive marketing approval and achieve market acceptance. If we do not continue to successfully develop and begin to commercialize product candidates, we will face difficulty in obtaining product revenue in future periods, which could result in significant harm to our financial position and adversely affect our share price.

Even if we receive regulatory approval to commercialize any of the product candidates that we develop, we will be subject to ongoing regulatory obligations and continued regulatory review, which may result in significant additional expense.

Any regulatory approvals that we receive for our product candidates may be subject to limitations on the approved indicated uses for which the product may be marketed or subject to certain conditions of approval, and may contain requirements for potentially costly post-approval trials, including Phase 4 clinical trials, and surveillance to monitor the safety and efficacy of the marketed product.

For any approved product, we will be subject to ongoing regulatory obligations and extensive oversight by regulatory authorities, including with respect to manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion and recordkeeping for the product. These requirements include submissions of safety and other post-approval information and reports, as well as continued compliance with current good manufacturing practices, or cGMP, and current good clinical practices, or cGCP, for any clinical trials that we or our strategic partners conduct after approval. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with third-party manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may result in, among other things:

- restrictions on the marketing or manufacturing of the product;
- withdrawal of the product from the market or voluntary or mandatory product recalls;
- fines, warning letters or holds on clinical trials;

- refusal by the FDA, EMA or another applicable regulatory authority to approve pending applications or supplements to approved applications filed by us or our strategic partners, or suspension or revocation of product license approvals;
- product seizure or detention, or refusal to permit the import or export of products; and
- injunctions or the imposition of civil or criminal penalties.

Occurrence of any of the foregoing could have a material and adverse effect on our business and results of operations. Further, the FDA's or other ex-U.S. regulators' policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained, which would adversely affect our business, prospects and ability to achieve or sustain profitability.

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

We face an inherent risk of product liability lawsuits related to the testing of our product candidates in seriously ill patients, and will face an even greater risk if product candidates are approved by regulatory authorities and introduced commercially. Product liability claims may be brought against us or our strategic partners by participants enrolled in our clinical trials, patients, health care providers or others using, administering or selling any of our future approved products. If we cannot successfully defend ourselves against any such claims, we may incur substantial liabilities. Regardless of their merit or eventual outcome, liability claims may result in:

- decreased demand for any future approved products;
- injury to our reputation;
- withdrawal of clinical trial participants;
- termination of clinical trial sites or entire trial programs;
- increased regulatory scrutiny;
- significant litigation costs;
- substantial monetary awards to or costly settlement with patients or other claimants;
- product recalls or a change in the indications for which they may be used;
- loss of revenue;
- diversion of management and scientific resources from our business operations; and
- the inability to commercialize our product candidates.

If any of our product candidates are approved for commercial sale, we will be highly dependent upon consumer perceptions of us and the safety and quality of our products. We could be adversely affected if we are subject to negative publicity. We could also be adversely affected if any of our products or any similar products distributed by other companies prove to be, or are asserted to be, harmful to patients. Because of our dependence upon consumer perceptions, any adverse publicity associated with illness or other adverse effects resulting from patients' use or misuse of our products or any similar products distributed by other companies could have a material adverse impact on our financial condition or results of operations.

We may need to have in place increased product liability coverage when we begin the commercialization of our product candidates. Insurance coverage is becoming increasingly expensive. As a result, we may be unable to maintain or obtain sufficient insurance at a reasonable cost to protect us against losses that could have a material adverse effect on our business. A successful product liability claim or series of claims brought against us, particularly if judgments exceed any insurance coverage we may have, could decrease our cash resources and adversely affect our business, financial condition and results of operation.

Changes in methods of product candidate manufacturing or formulation may result in additional costs or delay.

As product candidates are developed through preclinical to late-stage clinical trials towards approval and commercialization, it is common that various aspects of the development program, such as manufacturing methods and formulation, are altered along the way in an effort to optimize processes and results. Such changes carry the risk that they will not achieve these intended objectives. Any of these changes could cause our product candidates to perform differently and affect the results of planned clinical trials or other future clinical trials conducted with the altered materials. This could delay completion of clinical trials, require the conduct of bridging clinical trials or the repetition of one or more clinical trials, increase clinical trial costs, delay approval of our product candidates and jeopardize our ability, or our strategic partners' ability, to commence product sales and generate revenue.

Acquisitions or joint ventures could disrupt our business, cause dilution to our shareholders and otherwise harm our business.

We actively evaluate various strategic transactions on an ongoing basis. We may acquire other businesses, products or technologies as well as pursue strategic alliances, joint ventures or investments in complementary businesses. Any of these transactions could be material to our financial condition and operating results and expose us to many risks, including:

- disruption in our relationships with existing strategic partners or suppliers as a result of such a transaction;
- unanticipated liabilities related to acquired companies;
- difficulties integrating acquired personnel, technologies and operations into our existing business;
- retention of key employees;
- diversion of management time and focus from operating our business to management of strategic alliances or joint ventures or acquisition integration challenges;
- increases in our expenses and reductions in our cash available for operations and other uses; and
- possible write-offs or impairment charges relating to acquired businesses.

Foreign acquisitions involve unique risks in addition to those mentioned above, including those related to integration of operations across different cultures and languages, currency risks and the particular economic, political and regulatory risks associated with specific countries.

Also, the anticipated benefit of any strategic alliance, joint venture or acquisition may not materialize or such strategic alliance, joint venture or acquisition may be prohibited. Additionally, future acquisitions or dispositions could result in potentially dilutive issuances of our equity securities, the incurrence of debt, contingent liabilities or amortization expenses or write-offs of goodwill, any of which could harm our financial condition. We cannot predict the number, timing or size of future joint ventures or acquisitions, or the effect that any such transactions might have on our operating results.

Foreign governments tend to impose strict price controls, which may adversely affect our future profitability.

In most foreign countries, particularly in those in the European Union, prescription drug pricing and reimbursement is subject to governmental control. In those countries that impose price controls, 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 strategic partners may be required to conduct a clinical trial that compares the cost-effectiveness of our product candidates to other available therapies.

Some countries require approval of the sale price of a drug before it can be marketed. In many countries, the pricing review period begins after marketing or product licensing approval is granted. In some foreign markets, prescription pharmaceutical pricing remains subject to continuing governmental control even after initial approval is granted. As a result, we or our strategic partners might obtain marketing approval for a product candidate in a particular country, but then be subject to price regulations that delay commercial launch of the product candidate, possibly for lengthy time periods, and negatively impact the revenue that is generated from the sale of the product in that country. If reimbursement of such product candidates is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, or if there is competition from lower priced cross-border sales, our profitability will be negatively affected.

Security breaches, loss of data and other disruptions could compromise sensitive information related to our business or protected health information or prevent us from accessing critical information and expose us to liability, which could adversely affect our business and our reputation.

In the ordinary course of our business, we collect and store petabytes of sensitive data, including legally protected health information, personally identifiable information, intellectual property and proprietary business information owned or controlled by ourselves or our strategic partners. We manage and maintain our applications and data by utilizing a combination of on-site systems, managed data center systems and cloud-based data center systems. These applications and data encompass a wide variety of business-critical information, including research and development information, commercial information and business and financial information. We face four primary risks relative to protecting this critical information, including loss of access risk, inappropriate disclosure risk, inappropriate modification risk and the risk of being unable to adequately monitor our controls over the first three risks.

The secure processing, storage, maintenance and transmission of this critical information are vital to our operations and business strategy, and we devote significant resources to protecting such information. Although we take measures to protect sensitive information from unauthorized access or disclosure, our information technology and infrastructure and that of any third-party billing and collections provider we may utilize, may be vulnerable to attacks by hackers or viruses or breached due to employee error, malfeasance or other disruptions. Any such breach or interruption could compromise our networks and the information stored there could be accessed by unauthorized parties, publicly disclosed, lost or stolen. Any such access, disclosure or other loss of information could result in legal claims or proceedings, liability under laws that protect the privacy of personal information, such as HIPAA, and regulatory penalties. Although we have implemented security measures and a formal enterprise security program to prevent unauthorized access to patient data, there is no guarantee that we can continue to protect our systems from breach. Unauthorized access, loss or dissemination could also disrupt our operations (including our ability to conduct our analyses, provide test results, bill payors or providers, process claims and appeals, conduct research and development activities, collect, process and prepare company financial information, provide information about any future products, and manage the administrative aspects of our business) and damage our reputation, any of which could adversely affect our business.

The U.S. Office of Civil Rights may impose penalties on us or our CROs if we, or our CROs, do not fully comply with requirements of HIPAA. Penalties will vary significantly depending on factors such as whether we, or our CROs, knew or should have known of the failure to comply, or whether our failure, or that of our CROs, to comply was due to willful neglect. These penalties include civil monetary penalties of $100 to $50,000 per violation, up to an annual cap of $1,500,000 for identical violations. A person who knowingly obtains or discloses individually identifiable health information in violation of HIPAA may face a criminal penalty of up to $50,000 per violation and up to one-year imprisonment. The criminal penalties increase to $100,000 per violation and up to five-years imprisonment if the wrongful conduct involves false pretenses, and to $250,000 per violation and up to 10-years imprisonment if the wrongful conduct involves the intent to sell, transfer, or use identifiable health information for commercial advantage, personal gain, or malicious harm. The U.S. Department of Justice is responsible for criminal prosecutions under HIPAA. Furthermore, in the event of a breach as defined by HIPAA, we have specific reporting requirements to the Office of Civil Rights under the HIPAA regulations as well as to affected individuals, and we may also have additional reporting requirements to other state and federal regulators, including the Federal Trade Commission, and to the media. Issuing such notifications can be costly, time and resource intensive, and can generate significant negative publicity. Breaches of HIPAA may also constitute contractual violations that could lead to contractual damages or terminations.

In addition, the interpretation and application of consumer, health-related and data protection laws in the United States, the European Union, or EU, and elsewhere are often uncertain, contradictory and in flux. It is possible that these laws may be interpreted and applied in a manner that is inconsistent with our practices. If so, this could result in government-imposed fines or orders requiring that we change our practices, which could adversely affect our business. In addition, these privacy regulations vary between states, may differ from country to country, and may vary based on whether testing is performed in the United States or in the local country. Complying with these various laws could cause us to incur substantial costs or require us to change our business practices and compliance procedures in a manner adverse to our business.

Furthermore, the loss of clinical trial data from completed or future clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. Likewise, we rely on other third parties for the manufacture of our product candidates and to conduct clinical trials, and similar events relating to their computer systems could also have a material adverse effect on our business.

Current and future legislation may increase the difficulty and cost for us to commercialize any products that we or our strategic partners develop and affect the prices we may obtain.

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

In March 2010, the PPACA was enacted, which includes measures that have significantly changed, or will significantly change, the way healthcare is financed by both governmental and private insurers. Among the provisions of the PPACA of importance to the pharmaceutical industry are the following:

- an annual, non-deductible fee on any entity that manufactures or imports certain branded prescription drugs and biologic agents, apportioned among these entities according to their market share in certain government healthcare programs;
- an increase in the rebates a manufacturer must pay under the Medicaid Drug Rebate Program to 23.1% of the average manufacturer price, or AMP, for branded drugs or the difference between AMP and best price, whichever is greater. For generic drugs the rebate is 13%;
- Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts to negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period;
- extension of manufacturers' Medicaid rebate liability to covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations;
- expansion of eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to additional individuals and by adding new mandatory eligibility categories;

- requirement that applicable manufacturers and group purchasing organizations report annually to the U.S. Department of Health and Human Services, or HHS, information regarding certain payments and other transfers of value given to physicians and teaching hospitals, and any ownership or investment interest physicians, or their immediate family members, have in their company;
- a requirement to annually report drug samples that manufacturers and distributors provide to physicians;
- expansion of healthcare fraud and abuse laws, including the False Claims Act and the Anti-Kickback Statute, new government investigative powers, and enhanced penalties for noncompliance;
- a licensure framework for follow-on biologic products;
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research; and
- establishment of a Center for Medicare & Medicaid Innovation at the Centers for Medicare & Medicaid Services to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription drug spending.

Since its enactment, there have been judicial and Congressional challenges to certain aspects of the PPACA, including recent tax legislation that removed the financial penalties for people who do not carry health insurance. There is still uncertainty as to whether the PPACA will undergo additional revisions, and we cannot predict the impact of any future modifications, and it is uncertain how any such proposals, if approved, would affect these provisions.

In addition, other legislative changes have been proposed and adopted since the PPACA was enacted. These changes include aggregate reductions to Medicare payments to providers of up to 2% per fiscal year pursuant to the Budget Control Act of 2011, which began in 2013 and will remain in effect through 2025 unless additional Congressional action is taken. The American Taxpayer Relief Act of 2012, among other things, further reduced Medicare payments to several providers, including hospitals and cancer treatment centers, 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, which could have a material adverse effect on customers for our product candidates, if approved, and, accordingly, our financial operations. Also, there has been heightened governmental scrutiny recently over the manner in which drug manufacturers set prices for their marketed products, which have resulted in several Congressional inquiries and proposed bills designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drug products.

In the EU similar political, economic and regulatory developments may affect our ability to profitably commercialize our current or any future products. In addition to continuing pressure on prices and cost containment measures, legislative developments at the EU or member state level may result in significant additional requirements or obstacles that may increase our operating costs. In international markets, reimbursement and healthcare payment systems vary significantly by country, and many countries have instituted price ceilings on specific products and therapies. Our future products, if any, might not be considered medically reasonable and necessary for a specific indication or cost-effective by third-party payors, an adequate level of reimbursement might not be available for such products, and third-party payors' reimbursement policies might adversely affect our or our strategic partners' ability to sell any future products profitably.

Legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for pharmaceutical products. We cannot be sure whether additional legislative changes will be enacted, or whether the FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of our product candidates, if any, may be. In addition, increased scrutiny by the U.S. Congress of the FDA's approval process may significantly delay or prevent marketing approval, as well as subject us to more stringent product labeling and post-approval testing and other requirements.

We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we or our strategic partners are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we or our strategic partners are not able to maintain regulatory compliance, our product candidates may lose any marketing approval that may have been obtained and we may not achieve or sustain profitability, which would adversely affect our business.

Our business may become subject to economic, political, regulatory and other risks associated with international operations.

Our business is subject to risks associated with conducting business internationally. Some of our suppliers and collaborative and clinical trial relationships are located outside the United States. Accordingly, our future results could be harmed by a variety of factors, including:

- economic weakness, including inflation, or political instability in particular foreign economies and markets;
- differing regulatory requirements for drug approvals in foreign countries;
- potentially reduced protection for intellectual property rights;
- difficulties in compliance with non-U.S. laws and regulations;
- changes in non-U.S. regulations and customs, tariffs and trade barriers;
- changes in non-U.S. currency exchange rates and currency controls;
- changes in a specific country's or region's political or economic environment;
- trade protection measures, import or export licensing requirements or other restrictive actions by U.S. or non-U.S. governments;
- differing reimbursement regimes, including price controls;
- negative consequences from changes in tax laws;
- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- workforce uncertainty in countries where labor unrest is more common than in the United States;
- difficulties associated with staffing and managing foreign operations, including differing labor relations;
- production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad; and
- business interruptions resulting from geo-political actions, including war and terrorism, or natural disasters including earthquakes, typhoons, floods and fires.

Our business and current and future relationships with customers and third-party payors in the United States and elsewhere will be subject, directly or indirectly, to applicable federal and state anti-kickback, fraud and abuse, false claims, transparency, health information privacy and security and other healthcare laws and regulations, which could expose us to criminal sanctions, civil penalties, contractual damages, reputational harm, administrative burdens, and diminished profits and future earnings.

Healthcare providers, physicians and third-party payors in the United States and elsewhere play a primary role in the recommendation and prescription of any product candidates for which we obtain marketing approval.

Our current and future arrangements with healthcare professionals, principal investigators, consultants, customers, and third-party payors and other entities may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations, including, without limitation, the federal Anti-Kickback Statute and the federal False Claims Act, that may constrain the business or financial arrangements and relationships through which we conduct clinical research on product candidates and market, sell and distribute any products for which we obtain marketing approval. In addition, we may be subject to transparency laws and patient privacy regulation by the federal government and by the U.S. states and foreign jurisdictions in which we conduct our business. The applicable federal, state and foreign healthcare laws and regulations that may affect our ability to operate include, but are not limited to, the following:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons from knowingly and willfully soliciting, offering, receiving or providing remuneration (including any kickback, bribe or rebate), directly or indirectly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, order or recommendation of, any good or service for which payment may be made under federal and state healthcare programs such as Medicare and Medicaid;
- federal civil and criminal false claims laws and civil monetary penalty laws, including the federal False Claims Act, which impose criminal and civil penalties, including civil whistleblower or qui tam actions, against individuals or entities for knowingly presenting, or causing to be presented, to the federal government, including the Medicare and Medicaid programs, or other third-party payor claims for payment that are false or fraudulent or making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government;
- the U.S. Health Insurance Portability and Accountability Act of 1996, or HIPAA, which among other things, imposes criminal liability for knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or to obtain, by means of false or fraudulent pretenses, representations, or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, regardless of the payor (e.g. public or private) and knowingly and willfully falsifying, concealing or covering up by any trick or device a material fact or making any materially false statements in connection with the delivery of or payment for healthcare benefits, items or services relating to healthcare matters;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, and its implementing regulations, which imposes certain obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information without the appropriate authorization by entities subject to the law, such as health plans, healthcare clearinghouses and healthcare providers and their respective business associates;
- the federal Open Payments program under the Physician Payments Sunshine Act, created under Section 6002 of the PPACA and its implementing regulations, requires certain manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to report annually to HHS information related to "payments or other transfers of value" made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, and applicable manufacturers and applicable group purchasing organizations to report annually to HHS ownership and investment interests held by physicians (as defined above) and their immediate family members; and
- analogous state and foreign laws and regulations, including: state anti-kickback and false claims laws which may apply to our business practices, including, but not limited to, research, distribution, sales and marketing arrangements and claims involving healthcare items or services reimbursed by state governmental and non-governmental third-party payors, including private insurers; state laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the applicable compliance guidance promulgated by the federal government; state laws that require drug manufacturers to track gifts and other remuneration and items of value provided to healthcare professionals and entities and file reports relating to pricing and marketing information; and state and foreign laws that govern the privacy and security of health information in specified circumstances, many of which differ from each other in significant ways and often are not pre-empted by HIPAA, thus complicating compliance efforts.

Because of the breadth of these laws and the narrowness of the statutory exceptions and safe harbors available under the U.S. federal Anti-Kickback Statute and analogous state laws, it is possible that some of our current and future business activities could be subject to challenge under one or more of such laws.

Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations may involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, including, without limitation, damages, fines, imprisonment, exclusion from participation in government healthcare programs, such as Medicare and Medicaid, additional reporting requirements and oversight if we become subject to a corporate integrity agreement or similar agreement to resolve allegations of non-compliance with these laws and the curtailment or restructuring of our operations, which could have a material adverse effect on our business. If any of the physicians or other providers or entities with whom we expect to do business, including our strategic partners, is found not to be in compliance with applicable laws, it may be subject to criminal, civil or administrative sanctions, including exclusions from participation in government healthcare programs, which could also materially affect our business.

We are subject to U.S. and certain foreign export and import controls, sanctions, embargoes, anti-corruption laws, and anti-money laundering laws and regulations. Compliance with these legal standards could impair our ability to compete in domestic and international markets. We can face criminal liability and other serious consequences for violations which can harm our business.

We are subject to export control and import laws and regulations, including the U.S. Export Administration Regulations, U.S. Customs regulations, various economic and trade sanctions regulations administered by the U.S. Treasury Department's Office of Foreign Assets Controls, the U.S. Foreign Corrupt Practices Act of 1977, as amended, the U.S. domestic bribery statute contained in 18 U.S.C. § 201, the U.S. Travel Act, the USA PATRIOT Act, the United Kingdom Bribery Act 2010, the Proceeds of Crime Act 2002, and other state and national anti-bribery and anti-money laundering laws in the countries in which we conduct activities. Anti-corruption laws are interpreted broadly and prohibit companies and their employees, agents, contractors, and other partners from authorizing, promising, offering, or providing, directly or indirectly, improper payments or anything else of value to recipients in the public or private sector. We may engage third parties for clinical trials outside of the United States, to sell our products abroad once we enter a commercialization phase, or to obtain necessary permits, licenses, patent registrations, and other regulatory approvals. We may have direct or indirect interactions with officials and employees of government agencies or government-affiliated hospitals, universities, and other organizations. We can be held liable for the corrupt or other illegal activities of our employees, agents, contractors, and other partners, even if we do not explicitly authorize or have actual knowledge of such activities. Any violation of the laws and regulations described above may result in substantial civil and criminal fines and penalties, imprisonment, the loss of export or import privileges, debarment, tax reassessments, breach of contract and fraud litigation, reputational harm, and other consequences.

Risks Related to Our Financial Position and Need for Additional Capital

We have incurred significant losses since inception and anticipate that we will continue to incur losses for the foreseeable future. We have no products approved for commercial sale, and to date we have not generated any revenue or profit from product sales. We may never achieve or sustain profitability.

We are a clinical-stage biopharmaceutical company. We have incurred significant losses since our inception. Our net loss for the years ended December 31, 2015, 2016 and 2017 was $19.2 million, $33.8 million and $10.4 million, respectively. As of December 31, 2017, our accumulated deficit was approximately $108.7 million. We expect to continue to incur losses for the foreseeable future, and we expect these losses to increase as we continue our research and development of, and seek regulatory approvals for, our product candidates, prepare for and begin to commercialize any approved product candidates and add infrastructure and personnel to support our product development efforts and operations as a public company. The net losses and negative cash flows incurred to date, together with expected future losses, have had, and likely will continue to have, an adverse effect on our shareholders' deficit and working capital. The amount of future net losses will depend, in part, on the rate of future growth of our expenses and our ability to generate revenue.

Because of the numerous risks and uncertainties associated with pharmaceutical product development, we are unable to accurately predict the timing or amount of increased expenses or when, or if, we will be able to achieve profitability. For example, our expenses could increase if we are required by the FDA to perform trials in addition to those that we currently expect to perform, or if there are any delays in completing our currently planned clinical trials or in the development of any of our product candidates.

To become and remain profitable, we must succeed in developing and commercializing product candidates with significant market potential. This will require us to be successful in a range of challenging activities for which we are only in the preliminary stages, including developing product candidates, obtaining regulatory approval for such product candidates, and manufacturing, marketing and selling those product candidates for which we may obtain regulatory approval. We may never succeed in these activities and may never generate revenue from product sales that is significant enough 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, develop other product candidates, or continue our operations. A decline in the value of our company could also cause our shareholders to lose all or part of their investment.

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

We have devoted substantially all of our financial resources and efforts to developing our proprietary therapeutic platforms, identifying potential product candidates and conducting preclinical studies and a clinical trial. We and our partners are still in the early stages of developing our product candidates, and we have not completed development of any products. Our revenue to date has been primarily revenue from the license of our proprietary therapeutic platforms for the development of product candidates by others or revenue from our strategic partners. Our ability to generate revenue and achieve profitability depends in large part on our ability, alone or with our strategic partners, to achieve milestones and to successfully complete the development of, obtain the necessary regulatory approvals for, and commercialize, product candidates. We do not anticipate generating revenue from sales of products for the foreseeable future.

We will require substantial additional funding, which may not be available to us on acceptable terms, or at all, and, if not available, may require us to delay, scale back, or cease our product development programs or operations.

We are currently advancing two of our product candidates through preclinical and clinical development as well as other potential product candidates through discovery. Developing pharmaceutical products, including conducting preclinical studies and clinical trials, is expensive. In order to obtain such regulatory approval, we will be required to conduct clinical trials for each indication for each of our product candidates. We will continue to require additional funding to complete the development and commercialization of our product candidates and to continue to advance the development of our other product candidates, and such funding may not be available on acceptable terms or at all. Furthermore, in August 2016 we entered into a license agreement with Innovative Targeting Solutions Inc., or ITS, which requires licensing payments to ITS totaling $12.0 million over the following five-year period.

Although it is difficult to predict our liquidity requirements, based upon our current operating plan, we believe that our existing cash and cash equivalents and short term investments will enable us to fund our operating expenses and capital expenditure requirement into 2019. We may also be eligible to receive certain research, development and commercial milestone payments in the future, as described under “Business – Strategic Partnerships and Collaborations.” However, because successful development of our product candidates and the achievement of milestones by our strategic partners is uncertain, we are unable to estimate the actual funds we will require to complete research and development and to commercialize our product candidates.

Our future funding requirements will depend on many factors, including but not limited to:

- the number and characteristics of other product candidates that we pursue;
- the scope, progress, timing, cost and results of research, preclinical development, and clinical trials;
- the costs, timing and outcome of seeking and obtaining FDA and non-U.S. regulatory approvals;
- the costs associated with manufacturing our product candidates and establishing sales, marketing and distribution capabilities;
- our ability to maintain, expand and defend the scope of our intellectual property portfolio, including the amount and timing of any payments we may be required to make in connection with the licensing, filing, defense and enforcement of any patents or other intellectual property rights;
- our need and ability to hire additional management, scientific and medical personnel;
- the effect of competing products that may limit market penetration of our product candidates;
- our need to implement additional internal systems and infrastructure, including financial and reporting systems; and
- the economic and other terms, timing of and success of our existing strategic partnerships, and any collaboration, licensing, or other arrangements into which we may enter in the future, including the timing of receipt of any milestone or royalty payments under these agreements.

Until we can generate a sufficient amount of product revenue to finance our cash requirements, which we may never do, we expect to finance future cash needs primarily through a combination of public and private equity offerings, debt financings, strategic partnerships and grant funding.

If sufficient funds on acceptable terms are not available when needed, or at all, we could be forced to significantly reduce operating expenses and delay, scale back or eliminate one or more of our development programs or our business operations.

Raising additional capital may cause dilution to our shareholders, restrict our operations or require us to relinquish substantial rights.

To the extent that we raise additional capital through the sale of equity or convertible debt securities, our shareholders' ownership interest will be diluted, and the terms of these new securities may include liquidation or other preferences that adversely affect our shareholders' rights as common shareholders. Debt financing, if available at all, 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 additional funds through partnerships, collaborations, strategic alliances, or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, product candidates, or future revenue streams, or grant licenses on terms that are not favorable to us. We cannot assure that we will be able to obtain additional funding if and when necessary. If we are unable to obtain adequate financing on a timely basis, we could be required to delay, scale back or eliminate one or more of our development programs or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Unstable market and economic conditions may have serious adverse consequences on our business and financial condition.

Global credit and financial markets experienced extreme disruptions at various points over the last decade, characterized by diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, increases in unemployment rates and uncertainty about economic stability. If another such disruption in credit and financial markets and deterioration of confidence in economic conditions occurs, our business may be adversely affected. If the equity and credit markets were to deteriorate significantly in the future, it may make any necessary debt or equity financing more difficult to complete, 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 share price and could require us to delay or abandon development or commercialization plans. In addition, there is a risk that one or more of our current strategic partners, service providers, manufacturers and other partners would not survive or be able to meet their commitments to us under such circumstances, which could directly affect our ability to attain our operating goals on schedule and on budget.

We are subject to risks associated with currency fluctuations, and changes in foreign currency exchange rates could impact our results of operations.

Management assesses its functional currency to be the U.S. dollar based on management's analysis of the primary economic environment in which we operate.

As of December 31, 2017, approximately 7.7% of our cash and cash equivalents was denominated in Canadian dollars. Fluctuations in U.S. dollar and Canadian dollar exchange rates could result in a material increase in reported expenses relative to revenue, and therefore could cause our operating income (expense) to appear to decline materially. Fluctuations in foreign currency exchange rates also impact the reporting of our receivables and payables in non-Canadian currencies. As a result of such foreign currency fluctuations, it could be more difficult to detect underlying trends in our business and results of operations. In addition, to the extent that fluctuations in currency exchange rates cause our results of operations to differ from our expectations or the expectations of our investors, the trading price of our common shares could be adversely affected.

From time to time, we may engage in exchange rate hedging activities in an effort to mitigate the impact of exchange rate fluctuations. For example, we maintain a natural currency hedge against fluctuations in the U.S./Canadian foreign exchange rate by matching the amount of U.S. dollar and Canadian dollar investments to the expected amount of future U.S. dollar and Canadian dollar obligations, respectively. Any hedging technique we implement may fail to be effective. If our hedging activities are not effective, changes in currency exchange rates may have a more significant impact on the trading price of our common shares.

Risks Related to Our Dependence on Third Parties

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

We have limited capabilities for drug development and do not yet have any capability for sales, marketing or distribution. Accordingly, we have entered into strategic partnerships with other companies that we believe can provide such capabilities, including our collaboration and license agreements with Merck, Lilly, Celgene, GSK, Daiichi Sankyo and Janssen. These relationships also have provided us with non-dilutive funding for our wholly owned pipeline and therapeutic platforms and we expect to receive additional funding under these strategic partnerships in the future. Our existing strategic partnerships, and any future strategic partnerships we enter into, may pose a number of risks, including the following:

- strategic partners have significant discretion in determining the efforts and resources that they will apply to these partnerships;
- strategic partners may not perform their obligations as expected;
- strategic partners may not pursue development and commercialization of any product candidates that achieve regulatory approval or may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in the partners' strategic focus or available funding, or external factors, such as an acquisition, that divert resources or create competing priorities;

- strategic partners may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing;
- strategic partners could independently develop, or develop with third parties, products that compete directly or indirectly with our product candidates if the strategic partners believe that competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than our product candidates;
- product candidates discovered in collaboration with us may be viewed by our strategic partners as competitive with their own product candidates or products, which may cause strategic partners to cease to devote resources to the commercialization of our product candidates;
- a strategic partner with marketing and distribution rights to one or more of our product candidates that achieve regulatory approval may not commit sufficient resources to the marketing and distribution of such product candidates;
- disagreements with strategic partners, including disagreements over proprietary rights, contract interpretation or the preferred course of development, might cause delays or termination of the research, development or commercialization of product candidates, might lead to additional responsibilities for us with respect to product candidates, or might result in litigation or arbitration, any of which would be time-consuming and expensive;
- strategic partners may not properly maintain or defend our intellectual property rights or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential litigation;
- strategic partners may infringe the intellectual property rights of third parties, which may expose us to litigation and potential liability; and
- strategic partnerships may be terminated for the convenience of the partner and, if terminated, we could be required to raise additional capital to pursue further development or commercialization of the applicable product candidates. For example, each of our collaboration and license agreements with Merck, Lilly, Celgene, GSK, Daiichi Sankyo and Janssen may be terminated for convenience upon the completion of a specified notice period.

We may not realize the anticipated benefits of our strategic partnerships.

If our strategic partnerships do not result in the successful development and commercialization of product candidates or if one of our partners terminates its agreement with us, we may not receive any future research funding or milestone or royalty payments under the collaboration. Moreover, our estimates of the potential revenue we are eligible to receive under our strategic partnerships may include potential payments in respect of therapeutic programs for which our partners have discontinued development or may discontinue development in the future. Furthermore, our strategic partners may not keep us informed as to the status of their in-house research activities and they may fail to exercise options embedded within certain agreements. Any discontinuation of product development by our strategic partners could reduce the amounts receivable under our strategic partnerships below the stated amounts we are eligible to receive under those agreements. If we do not receive the funding we expect under these agreements, our development of our therapeutic platforms and product candidates could be delayed and we may need additional resources to develop product candidates and our therapeutic platforms. All of the risks relating to product development, regulatory approval and commercialization described in this Annual Report on Form 10-K also apply to the activities of our program strategic partners. For example, in 2017 Lilly nominated a bispecific candidate from their 2014 agreement with us for preclinical development and discontinued the development of two other bispecific antibodies due to strategic portfolio realignment in those particular disease areas. As a result, we have updated our projections and are currently eligible to receive up to $125.0 million under this agreement, comprised of research milestone payments of up to $2.0 million ($2.0 million earned in 2016), IND submission milestone payments of up to $8.0 million, development milestone payments of up to $20.0 million and commercial milestone payments of up to $95.0 million.

Additionally, subject to its contractual obligations to us, if one of our strategic partners is involved in a business combination, the partner might deemphasize or terminate the development or commercialization of any product candidate licensed to it by us. If one of our strategic partners terminates its agreement with us, we may find it more difficult to attract new partners.

We face significant competition in seeking new strategic partners.

For some of our product candidates, we may in the future determine to collaborate with additional pharmaceutical and biotechnology companies for development and potential commercialization of therapeutic products. Our ability to reach a definitive agreement for a collaboration will depend, among other things, upon our assessment of the strategic partner's resources and expertise, the terms and conditions of the proposed collaboration and the proposed strategic partner's evaluation of a number of factors. These factors may include the design or results of clinical trials, the likelihood of approval by the FDA or similar regulatory authorities outside the United States, the potential market for the subject product candidate, the costs and complexities of manufacturing and delivering such product candidate to patients, the potential of competing products, the existence of uncertainty with respect to our ownership of technology, which can exist if there is a challenge to such ownership without regard to the merits of the challenge and industry and market conditions generally. The strategic partner may also consider alternative product candidates or technologies for similar indications that may be available to collaborate on and whether such a collaboration could be more attractive than the one with us for our product candidate.

Strategic partnerships are complex and time-consuming to negotiate and document. In addition, there have been a significant number of recent business combinations among large pharmaceutical companies that have resulted in a reduced number of potential future strategic partners. If we are unable to reach agreements with suitable strategic partners on a timely basis, on acceptable terms, or at all, we may have to curtail the development of a product candidate, reduce or delay one or more of our other development programs, delay its potential commercialization or reduce the scope of any sales or marketing activities, or increase our expenditures and undertake development or commercialization activities at our own expense. If we elect to fund and undertake development or commercialization activities on our own, we may need to obtain additional expertise and additional capital, which may not be available to us on acceptable terms or at all. If we fail to enter into strategic partnerships and do not have sufficient funds or expertise to undertake the necessary development and commercialization activities, we may not be able to further develop our product candidates or bring them to market or continue to develop our therapeutic platforms and our business may be materially and adversely affected.

We rely on third-party manufacturers to produce our clinical product candidates. Any failure by a third-party manufacturer to produce acceptable product candidate for us may delay or impair our ability to initiate or complete our clinical trials or commercialize approved products.

We do not currently own or operate any manufacturing facilities nor do we have any in-house manufacturing experience or personnel. We rely on our strategic partners to manufacture product candidates licensed to them or work with multiple third-party contract manufacturers to produce sufficient quantities of materials required for the manufacture of our product candidates for preclinical testing and clinical trials, in compliance with applicable regulatory and quality standards, and intend to do so for the commercial manufacture of our products. If we are unable to arrange for such third-party manufacturing sources, or fail to do so on commercially reasonable terms, we may not be able to successfully produce sufficient supply of product candidate or we may be delayed in doing so. Such failure or substantial delay could materially harm our business.

Reliance on third-party manufacturers entails risks to which we would not be subject if we manufactured product candidates ourselves, including reliance on the third party for regulatory compliance and quality control and assurance, volume production, the possibility of breach of the manufacturing agreement by the third party because of factors beyond our control (including a failure to synthesize and manufacture our product candidates in accordance with our product specifications) and the possibility of termination or nonrenewal of the agreement by the third party at a time that is costly or damaging to us. In addition, the FDA, EMA and other regulatory authorities require that our product candidates be manufactured according to current cGMPs and similar foreign standards.

Pharmaceutical manufacturers and their subcontractors are required to register their facilities or products manufactured at the time of submission of the marketing application and then annually thereafter with the FDA and certain state and foreign agencies. They are also subject to periodic unannounced inspections by the FDA, state and other foreign authorities. Any subsequent discovery of problems with a product, or a manufacturing or laboratory facility used by us or our strategic partners, may result in restrictions on the product or on the manufacturing or laboratory facility, including marketed product recall, suspension of manufacturing, product seizure, or a voluntary withdrawal of the drug from the market. We may have little to no control regarding the occurrence of third-party manufacturer incidents. Any failure by our third-party manufacturers to comply with cGMP or failure to scale up manufacturing processes, including any failure to deliver sufficient quantities of product candidates in a timely manner, could lead to a delay in, or failure to obtain, regulatory approval of any of our product candidates.

The manufacture of our product candidates is complex. We and our third-party manufacturers may encounter difficulties in production. If we encounter any such difficulties, our ability to supply our product candidates for clinical trials or, if approved, for commercial sale could be delayed or halted entirely.

The manufacture of biopharmaceutical products is complex and requires significant expertise and capital investment, including the development of advanced manufacturing techniques and process controls. The process of manufacturing our product candidates is extremely susceptible to product loss due to contamination, equipment failure or improper installation or operation of equipment, vendor or operator error, contamination and inconsistency in yields, variability in product characteristics and difficulties in scaling the production process. Even minor deviations from normal manufacturing processes could result in reduced production yields, product defects and other supply disruptions. If microbial, viral or other contaminations are discovered in our product candidates or in the manufacturing facilities in which our product candidates are made, such manufacturing facilities may need to be closed for an extended period of time to investigate and remedy the contamination. All of our engineered antibodies are manufactured by starting cells that are stored in a cell bank. We have one master cell bank for each antibody manufactured in accordance with cGMP and multiple working cell banks. While we believe we would have adequate back up should any cell bank be lost in a catastrophic event, it is possible that we could lose multiple cell banks and have our manufacturing severely impacted by the need to replace the cell banks. Any adverse developments affecting manufacturing operations for our product candidates, if any are approved, may result in shipment delays, inventory shortages, lot failures, product withdrawals or recalls, or other interruptions in the supply of our products. We may also have to take inventory write-offs and incur other charges and expenses for products that fail to meet specifications, undertake costly remediation efforts or seek more costly manufacturing alternatives.

We rely on third parties to monitor, support, conduct and oversee clinical trials of the product candidates that we are developing and, in some cases, to maintain regulatory files for those product candidates. We may not be able to obtain regulatory approval for our product candidates or commercialize any products that may result from our development efforts, if we are not able to maintain or secure agreements with such third parties on acceptable terms, if these third parties do not perform their services as required, or if these third parties fail to timely transfer any regulatory information held by them to us.

We rely on entities outside of our control, which may include academic institutions, CROs, hospitals, clinics and other third-party strategic partners, to monitor, support, conduct and oversee preclinical studies and clinical trials of our current and future product candidates. We also rely on third parties to perform clinical trials on our current and future product candidates when they reach that stage. As a result, we have less control over the timing and cost of these studies and the ability to recruit trial subjects than if we conducted these trials with our own personnel.

If we are unable to maintain or enter into agreements with these third parties on acceptable terms, or if any such engagement is terminated prematurely, we may be unable to enroll patients on a timely basis or otherwise conduct our trials in the manner we anticipate. In addition, there is no guarantee that these third parties will devote adequate time and resources to our studies or perform as required by our contract or in accordance with regulatory requirements, including maintenance of clinical trial information regarding our product candidates. If these third parties fail to meet expected deadlines, fail to transfer to us any regulatory information in a timely manner, fail to adhere to protocols or fail to act in accordance with regulatory requirements or our agreements with them, or if they otherwise perform in a substandard manner or in a way that compromises the quality or accuracy of their activities or the data they obtain, then clinical trials of our product candidates may be extended or delayed with additional costs incurred, or our data may be rejected by the FDA, EMA or other regulatory agencies.

Ultimately, we are responsible for ensuring that each of our clinical trials is conducted in accordance with the applicable protocol, legal, regulatory and scientific standards, and our reliance on third parties does not relieve us of our regulatory responsibilities.

We and our CROs are required to comply with cGCP regulations and guidelines enforced by the FDA, the competent authorities of the member states of the EU and comparable foreign regulatory authorities for products in clinical development. Regulatory authorities enforce these cGCP regulations through periodic inspections of clinical trial sponsors, principal investigators and clinical trial sites. If we or any of our CROs fail to comply with applicable cGCP regulations, the clinical data generated in our clinical trials may be deemed unreliable and our submission of marketing applications may be delayed or the FDA may require us to perform additional clinical trials before approving our marketing applications. Upon inspection, the FDA could determine that any of our clinical trials fail or have failed to comply with applicable cGCP regulations. In addition, our clinical trials must be conducted with product produced under the cGMP regulations enforced by the FDA, and our clinical trials may require a large number of test subjects. Our failure to comply with these regulations may require us to repeat clinical trials, which would delay the regulatory approval process and increase our costs. Moreover, our business may be implicated if any of our CROs violates federal or state fraud and abuse or false claims laws and regulations or healthcare privacy and security laws.

If any of our clinical trial sites terminate for any reason, we may experience the loss of follow-up information on patients enrolled in our ongoing clinical trials unless we are able to transfer the care of those patients to another qualified clinical trial site. Further, if our relationship with any of our CROs is terminated, we may be unable to enter into arrangements with alternative CROs on commercially reasonable terms, or at all.

Switching or adding CROs or other suppliers can involve substantial cost and require extensive management time and focus. In addition, there is a natural transition period when a new CRO or supplier commences work. As a result, delays may occur, which can materially impact our ability to meet our desired clinical development timelines. If we are required to seek alternative supply arrangements, the resulting delays and potential inability to find a suitable replacement could materially and adversely impact our business.

We rely on third parties for various operational and administrative aspects of our business, including for certain cloud-based software platforms, which impact our financial, operational and research activities. If any of these third parties fail to provide timely, accurate and ongoing service or if the cloud-based platforms suffer outages that we are unable to mitigate, our business may be adversely affected.

We currently rely upon third-party consultants and contractors to provide certain operational and administrative services. These services include external tax advice and clinical and research consultation. The failure of any of these third parties to provide accurate and timely service may adversely impact our business operations. In addition, if such third-party service providers were to cease operations, temporarily or permanently, face financial distress or other business disruption, or increase their fees, or if our relationships with these providers deteriorate, we could suffer increased costs until an equivalent provider could be found, if at all, or we could develop internal capabilities, if ever.

In addition, if we are unsuccessful in choosing or finding high-quality partners, if we fail to negotiate cost-effective relationships with them, or if we ineffectively manage these relationships, it could have an adverse impact on our business and financial performance.

Further, our operations depend on the continuing and efficient operation of our information technology and communications systems and infrastructure, and specifically on the “cloud-based” platforms. These platforms are vulnerable to damage or interruption from earthquakes, vandalism, sabotage, terrorist attacks, floods, fires, power outages, telecommunications failures, and computer viruses or other deliberate attempts to harm the systems. The occurrence of a natural or intentional disaster, any decision to close a facility we are using without adequate notice, or particularly an unanticipated problem at our cloud-based virtual server facility, could result in harmful interruptions in our service, resulting in adverse effects to our business.

Risks Related to Our Intellectual Property

Our commercial success depends significantly on our ability to operate without infringing the patents and other proprietary rights of third parties.

Our success will depend in part on our ability to operate without infringing the proprietary rights of third parties. Other entities may have or obtain patents or proprietary rights that could limit our ability to make, use, sell, offer for sale or import our future approved products or impair our competitive position. For example, certain patents and patent applications held by third parties cover Fab and Fc region engineering methods for bispecific antibodies, and antibodies having mutations in Fab heavy and light chain regions and Fc regions to generate correctly paired bispecific antibodies. If our products or our strategic partners' products incorporate any Fab or Fc region mutations covered by any claims of these patents or patents that may issue from these applications and we are unable to invalidate those patents, or if licenses for them are not available on commercially reasonable terms or at all, our business could be materially harmed.

We are also aware of third-party patents and patent applications containing claims directed to compositions and methods for treating various forms of cancer with antibodies targeting HER2, alone or in combination with other anti-cancer agents, as well as compositions and methods for making and using anti-HER2 antibody conjugates comprising certain toxins, which patents and applications could potentially be construed to cover our product candidates and the use thereof to treat cancer. If our products or our strategic partners' products were to be found to infringe any such patents, and we were unable to invalidate those patents, or if licenses for them are not available on commercially reasonable terms, or at all, our business could be materially harmed. These patents may not expire before we receive marketing authorization for our product candidates, and could delay the commercial launch or one or more future products. There is also no assurance that there are not third-party patents or patent applications of which we are aware, but which we do not believe are relevant to our business, which may, nonetheless, ultimately be found to limit our ability to make, use, sell, offer for sale or import our future approved products or impair our competitive position.

Patents that we may ultimately be found to infringe could be issued to third parties. Third parties may have or obtain valid and enforceable patents or proprietary rights that could block us from developing product candidates using our technology. Our failure to obtain a license to any technology that we require may materially harm our business, financial condition and results of operations. Moreover, our failure to maintain a license to any technology that we require may also materially harm our business, financial condition and results of operations. Furthermore, we would be exposed to a threat of litigation.

In the pharmaceutical industry, significant litigation and other proceedings regarding patents, patent applications, trademarks and other intellectual property rights have become commonplace. The types of situations in which we may become a party to such litigation or proceedings include:

- we or our strategic partners may initiate litigation or other proceedings against third parties seeking to invalidate the patents held by those third parties, to obtain a judgment that our products or processes do not infringe those third parties' patents or to obtain a judgement that those parties' patents are unenforceable;
- if our competitors file patent applications that claim technology also claimed by us or our licensors, we or our licensors may be required to participate in interference, derivation or opposition proceedings to determine the priority of invention, which could jeopardize our patent rights and potentially provide a third party with a dominant patent position;
- if third parties initiate litigation claiming that our processes or products infringe their patent or other intellectual property rights or initiating other proceedings, including post-grant proceedings and *inter partes* reviews, we and our strategic partners will need to defend against such proceedings; and
- if a license to necessary technology is terminated, the licensor may initiate litigation claiming that our processes or products infringe or misappropriate their patent or other intellectual property rights and/or that we breached our obligations under the license agreement, and we and our strategic partners would need to defend against such proceedings.

These lawsuits would be costly and could affect our results of operations and divert the attention of our management and scientific personnel. Some of our competitors may be able to sustain the cost of such litigation and proceedings more effectively than we can because of their substantially greater resources. There is a risk that a court would decide that we or our strategic partners are infringing the third party's patents and would order us or our strategic partners to stop the activities covered by the patents. In that event, we or our strategic partners may not have a viable alternative to the technology protected by the patent and may need to halt work on the affected product candidate or cease commercialization of an approved product. In addition, there is a risk that a court will order us or our strategic partners to pay third-party damages or some other monetary award, depending upon the jurisdiction. An adverse outcome in any litigation or other proceeding could subject us to significant liabilities to third parties, potentially including treble damages and attorneys' fees if we are found to have willfully infringed, and we may be required to cease using the technology that is at issue or to license the technology from third parties. We may not be able to obtain any required licenses on commercially acceptable terms or at all. Any of these outcomes could have a material adverse effect on our business.

If we are unable to obtain, maintain and enforce patent and trade secret protection for our product candidates and related technology, our business could be materially harmed.

Our strategy depends on our ability to identify and seek patent protection for our discoveries. This process is expensive and time consuming, and we may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner or in all jurisdictions where protection may be commercially advantageous. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. Moreover, 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 technology that we have licensed from third parties. Therefore, our owned or in-licensed patents and patent applications may not be prosecuted and enforced in a manner consistent with the best interests of our business. Our patent applications cannot be enforced against third parties practicing the technology claimed in such applications unless, and until, patents issue from such applications, and then only to the extent the issued claims cover the technology. The patent applications that we own or in-license may fail to result in issued patents with claims that cover our current and future product candidates in the United States or in other foreign countries.

Moreover, the patent position of biopharmaceutical companies generally is highly uncertain, involves complex legal and factual questions and has in recent years been the subject of much litigation. The issuance of a patent does not ensure that it is valid or enforceable. Third parties may challenge the validity, enforceability or scope of our issued patents, and such patents may be narrowed, invalidated, circumvented, or deemed unenforceable. In addition, changes in law may introduce uncertainty in the enforceability or scope of patents owned by biotechnology companies. If our patents are narrowed, invalidated or held unenforceable, third parties may be able to commercialize our technology or products and compete directly with us without payment to us. There is no assurance that all potentially relevant prior art relating to our patents and patent applications has been found, and such prior art could potentially invalidate one or more of our patents or prevent a patent from issuing from one or more of our pending patent applications. There is also no assurance that there is not prior art of which we are aware, but which we do not believe affects the validity or enforceability of a claim in our patents and patent applications, which may, nonetheless, ultimately be found to affect the validity or enforceability of a claim. Furthermore, even if our patents are unchallenged, they may not adequately protect our intellectual property, provide exclusivity for our product candidates, prevent others from designing around our claims or provide us with a competitive advantage. The legal systems of certain countries do not favor the aggressive enforcement of patents, and the laws of foreign countries may not allow us to protect our inventions with patents to the same extent as the laws of the United States. Because patent applications in the United States and many foreign jurisdictions are typically not published until 18 months after filing, or in some cases not at all, and because publications of discoveries in scientific literature lag behind actual discoveries, we cannot be certain that we were the first to make the inventions claimed in our issued patents or pending patent applications, or that we were the first to file for protection of the inventions set forth in our patents or patent applications. As a result, we may not be able to obtain or maintain protection for certain inventions. Therefore, the issuance, validity, enforceability, scope and commercial value of our patents in the United States and in foreign countries cannot be predicted with certainty and, as a result, any patents that we own or license may not provide sufficient protection against competitors. We may not be able to obtain or maintain patent protection from our pending patent applications, from those we may file in the future, or from those we may license from third parties. Moreover, even if we are able to obtain patent protection, such patent protection may be of insufficient scope to achieve our business objectives. In addition, the issuance of a patent does not give us the right to practice the patented invention. Third parties may have blocking patents that could prevent us from marketing our own patented product and practicing our own patented technology.

Our patents covering one or more of our products or product candidates could be found invalid or unenforceable if challenged.

Any of our intellectual property rights could be challenged or invalidated despite measures we take to obtain patent and other intellectual property protection with respect to our product candidates and proprietary technology. For example, if we were to initiate legal proceedings against a third party to enforce a patent covering one of our product candidates, the defendant could counterclaim that our patent is invalid and/or unenforceable. In patent litigation in the United States and in some other jurisdictions, defendant counterclaims alleging invalidity and/or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, for example, lack of novelty, obviousness or non-enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld material information from the United States Patent and Trademark Office, or USPTO, or the applicable foreign counterpart, or made a misleading statement, during prosecution. A litigant or the USPTO itself could challenge our patents on this basis even if we believe that we have conducted our patent prosecution in accordance with the duty of candor and in good faith. The outcome following such a challenge is unpredictable.

With respect to challenges to the validity of our patents, for example, there might be invalidating prior art, of which we and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity and/or unenforceability, we would lose at least part, and perhaps all, of the patent protection on a product candidate. Even if a defendant does not prevail on a legal assertion of invalidity and/or unenforceability, our patent claims may be construed in a manner that would limit our ability to enforce such claims against the defendant and others. The cost of defending such a challenge, particularly in a foreign jurisdiction, and any resulting loss of patent protection could have a material adverse impact on one or more of our product candidates and our business.

Enforcing our intellectual property rights against third parties may also cause such third parties to file other counterclaims against us, which could be costly to defend, particularly in a foreign jurisdiction, and could require us to pay substantial damages, cease the sale of certain products or enter into a license agreement and pay royalties (which may not be possible on commercially reasonable terms or at all). Any efforts to enforce our intellectual property rights are also likely to be costly and may divert the efforts of our scientific and management personnel.

Our intellectual property rights will not necessarily provide us with competitive advantages.

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. The following examples are illustrative:

- others may be able to make compounds that are similar to our product candidates but that are not covered by the claims of the patents that we or our strategic partners own or have exclusively licensed;
- others may independently develop similar or alternative technologies without infringing our intellectual property rights;
- issued patents that we own or have exclusively licensed may not provide us with any competitive advantages, or may be held invalid or unenforceable, as a result of legal challenges by our competitors;
- we may obtain patents for certain compounds many years before we obtain marketing approval for products containing such compounds, and because patents have a limited life, which may begin to run prior to the commercial sale of the related product, the commercial value of our patents may be limited;

- 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 fail to develop additional proprietary technologies that are patentable;
- the laws of certain foreign countries may not protect our intellectual property rights to the same extent as the laws of the United States, or we may fail to apply for or obtain adequate intellectual property protection in all the jurisdictions in which we operate; and
- the patents of others may have an adverse effect on our business, for example by preventing us from marketing one or more of our product candidates for one or more indications.

Any of the aforementioned threats to our competitive advantage could have a material adverse effect on our business.

We may become involved in lawsuits to protect or enforce our patents and trade secrets, which could be expensive, time consuming and unsuccessful.

Third parties may seek to market biosimilar versions of any approved products. Alternatively, third parties may seek approval to market their own products similar to or otherwise competitive with our product candidates. In these circumstances, we may need to defend or assert our patents, including by filing lawsuits alleging patent infringement. The outcome following legal assertions of invalidity and unenforceability is unpredictable. In any of these types of proceedings, a court or agency with jurisdiction may find our patents invalid or unenforceable. Even if we have valid and enforceable patents, these patents still may not provide protection against competing products or processes sufficient to achieve our business objectives.

Even after they have issued, our patents and any patents that we license may be challenged, narrowed, invalidated or circumvented. If our patents are invalidated or otherwise limited or will expire prior to the commercialization of our product candidates, other companies may be better able to develop products that compete with ours, which could adversely affect our competitive business position, business prospects and financial condition. In addition, if the breadth or strength of protection provided by our patents and patent applications is threatened, it could dissuade companies from collaborating with us to license, develop or commercialize current or future product candidates.

The following are examples of litigation and other adversarial proceedings or disputes that we could become a party to involving our patents or patents licensed to us:

- we or our strategic partners may initiate litigation or other proceedings against third parties to enforce our patent and trade secret rights;
- third parties may initiate litigation or other proceedings seeking to invalidate patents owned by or licensed to us or to obtain a declaratory judgment that their product or technology does not infringe our patents or patents licensed to us;
- third parties may initiate opposition or reexamination proceedings challenging the validity or scope of our patent rights, requiring us or our strategic partners and/or licensors to participate in such proceedings to defend the validity and scope of our patents;
- there may be a challenge or dispute regarding inventorship or ownership of patents or trade secrets currently identified as being owned by or licensed to us;
- the USPTO may initiate an interference between patents or patent applications owned by or licensed to us and those of our competitors, requiring us or our strategic partners and/or licensors to participate in an interference proceeding to determine the priority of invention, which could jeopardize our patent rights; or

- third parties may seek approval to market biosimilar versions of our future approved products prior to expiration of relevant patents owned by or licensed to us, requiring us to defend our patents, including by filing lawsuits alleging patent infringement.

These lawsuits and proceedings would be costly and could affect our results of operations and divert the attention of our managerial and scientific personnel. Adversaries in these proceedings may have the ability to dedicate substantially greater resources to prosecuting these legal actions than we or our licensors can. There is a risk that a court or administrative body would decide that our patents are invalid or not infringed or trade secrets not misappropriated by a third party's activities, or that the scope of certain issued claims must be further limited. An adverse outcome in a litigation or proceeding involving our own patents or trade secrets could limit our ability to assert our patents or trade secrets against these or other competitors, affect our ability to receive royalties or other licensing consideration from our licensees, and may curtail or preclude our ability to exclude third parties from making, using and selling similar or competitive products. Any of these occurrences could adversely affect our competitive business position, business prospects and financial condition.

We may not be able to prevent, alone or with our licensors, infringement or misappropriation of our intellectual property rights, particularly in countries where the laws may not protect those rights as fully as in the United States. Any litigation or other proceedings to enforce our intellectual property rights may fail, and even if successful, may result in substantial costs and distract our management and other employees.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. There could also be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have an adverse effect on the price of our common shares.

The degree of future protection for our proprietary rights is uncertain because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep our competitive advantage. For example:

- others may be able to develop a platform that is similar to, or better than, ours in a way that is not covered by the claims of our patents;
- others may be able to make compounds that are similar to our product candidates but that are not covered by the claims of our patents;
- we might not have been the first to make the inventions covered by patents or pending patent applications;
- we might not have been the first to file patent applications for these inventions;
- any patents that we obtain may not provide us with any competitive advantages or may ultimately be found invalid or unenforceable; or
- we may not develop additional proprietary technologies that are patentable or that afford meaningful trade secret protection.

Patent terms may be inadequate to protect our competitive position on our product candidates for an adequate amount of time.

Patents have a limited lifespan. In the United States, if all maintenance fees are timely paid, the natural expiration of a patent is generally 20 years from its earliest U.S. non-provisional filing date. Various extensions may be available, but the life of a patent, and the protection it affords, is limited. Even if patents covering our product candidates are obtained, once the patent life has expired, we may be open to competition from competitive products, including biosimilars. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, our owned and licensed patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

If we do not obtain protection under the Hatch-Waxman amendments and similar foreign legislation for extending the term of patents covering each of our product candidates, our business may be materially harmed.

Depending upon the timing, duration and conditions of FDA marketing approval of our product candidates, one or more of our U.S. patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, referred to as the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent term extension of up to five years for a patent covering an approved product as compensation for effective patent term lost during product development and the FDA regulatory review process. However, we may not receive an extension if we fail to apply within applicable deadlines, fail to apply prior to expiration of relevant patents or otherwise fail to satisfy applicable requirements. Moreover, the length of the extension 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, the period during which we can enforce our patent rights for that product will be shortened and our competitors may obtain approval to market competing products sooner. As a result, our revenue from applicable products could be reduced, possibly materially. Further, if this occurs, our competitors may take advantage of our investment in development and trials by referencing our clinical and preclinical data and launch their product earlier than might otherwise be the case.

If we are unable to protect the confidentiality of our proprietary information, the value of our technology and products could be adversely affected.

In addition to patent protection, we also rely on other proprietary rights, including protection of trade secrets, and other proprietary information. For example, we treat our proprietary computational technologies, including unpatented know-how and other proprietary information, as trade secrets. To maintain the confidentiality of trade secrets and proprietary information, we enter into confidentiality agreements with our employees, consultants, strategic partners and others upon the commencement of their relationships with us. These agreements require that all confidential information developed by the individual or made known to the individual by us during the course of the individual's relationship with us be kept confidential and not disclosed to third parties. Our agreements with employees and our personnel policies also provide that any inventions conceived by the individual in the course of rendering services to us shall be our exclusive property. However, we may not obtain these agreements in all circumstances, and individuals with whom we have these agreements may not comply with their terms. Thus, despite such agreement, such inventions may become assigned to third parties. In the event of unauthorized use or disclosure of our trade secrets or proprietary information, these agreements, even if obtained, may not provide meaningful protection, particularly for our trade secrets or other confidential information. To the extent that our employees, consultants or contractors use technology or know-how owned by third parties in their work for us, disputes may arise between us and those third parties as to the rights in related inventions. To the extent that an individual who is not obligated to assign rights in intellectual property to us is rightfully an inventor of intellectual property, we may need to obtain an assignment or a license to that intellectual property from that individual, or a third party or from that individual's assignee. Such assignment or license may not be available on commercially reasonable terms or at all.

Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming and the outcome is unpredictable. The disclosure of our trade secrets would impair our competitive position and may materially harm our business, financial condition and results of operations. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to maintain trade secret protection could adversely affect our competitive business position. In addition, if any of our trade secrets were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent such third party, or those to whom they communicate such technology or information, from using that technology or information to compete with us. If any of our trade secrets were to be disclosed to or independently developed by a competitor, or if we otherwise lose protection for our trade secrets or proprietary know-how, the value of this information may be greatly reduced and our business and competitive position could be harmed. Adequate remedies may not exist in the event of unauthorized use or disclosure of our proprietary information.

As is common in the biotechnology and pharmaceutical industries, we employ individuals who were previously or concurrently employed at research institutions and/or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. We may be subject to claims that these employees, or we, have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers, or that patents and applications we have filed to protect inventions of these employees, even those related to one or more of our product candidates, are rightfully owned by their former or concurrent employer. Litigation may be necessary to defend against these claims. Such trade secrets or other proprietary information 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 license may not be available on commercially reasonable terms or at all. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

Obtaining and maintaining our patent protection depends on compliance with various procedural, documentary, fee payment and other requirements imposed by regulations and governmental patent agencies, and our patent protection could be reduced or eliminated for noncompliance with these requirements.

Periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on patents or applications will be due to the USPTO and various foreign patent offices at various points over the lifetime of our patents or applications. We have systems in place to remind us to pay these fees, and we rely on our outside patent annuity service to pay these fees when due. Additionally, the USPTO and various foreign patent offices require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. We employ reputable law firms and other professionals to help us comply, and in many cases an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with rules applicable to the particular jurisdiction. However, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. If such an event were to occur, it could have a material adverse effect on our business.

We may be subject to claims challenging the inventorship of our patents and other intellectual property.

Although we are not currently experiencing any claims challenging the inventorship or ownership of our patents, we may in the future be subject to claims that former employees, strategic partners or other third parties have an interest in our patents or other intellectual property as an inventor or co-inventor. 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. For example, the assignment of intellectual property rights may not be self-executing or the assignment agreements may be breached, or we may have inventorship disputes arise from conflicting obligations of consultants or others who are involved in developing our product candidates. Litigation may be necessary to defend against these and other claims challenging inventorship. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, valuable intellectual property. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.

Patent protection and patent prosecution for some of our product candidates may be dependent on, and the ability to assert patents and defend them against claims of invalidity may be maintained by, third parties.

There may be times in the future when certain patents that relate to our product candidates or any approved products are controlled by our licensees or licensors. Although we may, under such arrangements, have rights to consult with our strategic partners on actions taken as well as back-up rights of prosecution and enforcement, we have in the past and may in the future relinquish rights to prosecute and maintain patents and patent applications within our portfolio as well as the ability to assert such patents against infringers.

If any current or future licensee or licensor with rights to prosecute, assert or defend patents related to our product candidates fails to appropriately prosecute and maintain patent protection for patents covering any of our product candidates, or if patents covering any of our product candidates are asserted against infringers or defended against claims of invalidity or unenforceability in a manner which adversely affects such coverage, our ability to develop and commercialize any such product candidate may be adversely affected and we may not be able to prevent competitors from making, using and selling competing products.

Changes in patent laws or patent jurisprudence could diminish the value of patents in general, thereby impairing our ability to protect our products.

The patent positions of pharmaceutical and biotechnology companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. Changes in either the patent laws or in the interpretations of patent laws in the United States and other countries may diminish the value of our intellectual property. We cannot predict the breadth of claims that may be allowed or found to be enforceable in our patents, in our strategic partners' patents or in third-party patents. The United States has enacted and is currently implementing wide-ranging patent reform legislation. Further, recent U.S. Supreme Court rulings have either narrowed the scope of patent protection available in certain circumstances or weakened the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the validity, scope and value of patents, once obtained.

For our U.S. patent applications containing a priority claim after March 16, 2013, there is a greater level of uncertainty in the patent law. In September 2011, the Leahy-Smith America Invents Act, also known as the America Invents Act, or AIA, was signed into law. The AIA includes a number of significant changes to U.S. patent law, including provisions that affect the way patent applications will be prosecuted and may also affect patent litigation.

The AIA 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 an adverse effect on our business. An important change introduced by the AIA is that, as of March 16, 2013, the United States transitioned to a "first-to-file" system for deciding which party should be granted a patent when two or more patent applications are filed by different parties disclosing or claiming the same invention. A third party that has filed, or does file a patent application in the USPTO after March 16, 2013 but before us, could be awarded a patent covering a given invention, even if we had made the invention before it was made by the third party. This requires us to be cognizant going forward of the time from invention to filing of a patent application.

Among some of the other changes introduced by the AIA are changes that limit where a patentee may file a patent infringement suit and providing opportunities for third parties to challenge any issued patent in the USPTO. This applies to all of our U.S. patents, even those issued before March 16, 2013. Because of a lower evidentiary standard in USPTO proceedings compared to the evidentiary standard in United States federal court necessary to invalidate a patent claim, a third party could potentially provide evidence in a USPTO proceeding sufficient for the USPTO to hold a claim invalid even though the same evidence would be insufficient to invalidate the claim if first presented in a district court action. Accordingly, a third party may attempt to use the USPTO procedures to invalidate our patent claims that would not have been invalidated if first challenged by the third party as a defendant in a district court action.

Depending on decisions by the U.S. Congress, the U.S. federal courts, the USPTO or similar authorities in foreign jurisdictions, the laws and regulations governing patents could change in unpredictable ways that may weaken our and our licensors' ability to obtain new patents or to enforce existing patents we and our licensors or partners may obtain in the future.

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

Filing, prosecuting and defending patents on product candidates in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States can be less extensive than those in the United States. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States, or from selling or importing products made using our inventions in and into the United States or other jurisdictions. 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, but enforcement is not as strong as that in the United States. These products may compete with our current or future products, if any, and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing. Recent United States Supreme Court cases have narrowed the scope of what is considered patentable subject matter, for example, in the areas of software and diagnostic methods involving the association between treatment outcome and biomarkers. This could impact our ability to patent certain aspects of our technology in the United States.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents, trade secrets and other intellectual property protection, particularly those relating to biotechnology products, which could make it difficult for us to stop the infringement of our patents or marketing of competing products in violation of our proprietary rights generally. Proceedings to enforce our patent 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 and our patent applications at risk of not issuing 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 rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

Additionally, the requirements for patentability may differ in certain countries, particularly developing countries. For example, unlike other countries, China has a heightened requirement for patentability, and specifically requires a detailed description of medical uses of a claimed drug. In India, unlike the United States, there is no link between regulatory approval of a drug and its patent status. In addition to India, certain countries in Europe and developing countries, including China, have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In those countries, we and our licensors may have limited remedies if patents are infringed or if we or our licensors are compelled to grant a license to a third party, which could materially diminish the value of those patents. This could limit our potential revenue opportunities. Accordingly, our efforts to enforce intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we own or license.

We will need to obtain FDA approval for any proposed product candidate names, and any failure or delay associated with such approval may adversely affect our business.

Any proprietary name or trademark we intend to use for our product candidates will require approval from the FDA regardless of whether we have secured a formal trademark registration from the USPTO. The FDA typically conducts a review of proposed product candidate names, including an evaluation of the potential for confusion with other product names. The FDA may also object to a product name if it believes the name inappropriately implies certain medical claims or contributes to an overstatement of efficacy. If the FDA objects to any product candidate names we propose, we may be required to adopt an alternative name for our product candidates. If we adopt an alternative name, we would lose the benefit of any existing trademark applications for such product candidate and may be required to expend significant additional resources in an effort to identify a suitable product name that would qualify under applicable trademark laws, not infringe the existing rights of third parties and be acceptable to the FDA. We may be unable to build a successful brand identity for a new trademark in a timely manner or at all, which would limit our ability to commercialize our product candidates.

Risks Related to Additional Legal and Compliance Matters

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 federal and state health care 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 health care industry are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Employee misconduct could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. We have adopted a Code of Conduct and Business Ethics, or Code of Conduct, but it is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of significant fines or other sanctions.

If we market products in a manner that violates healthcare fraud and abuse laws, or if we violate government price reporting laws, we may be subject to civil or criminal penalties.

In addition to FDA restrictions on the marketing of pharmaceutical products, federal and state healthcare laws restrict certain business practices in the biopharmaceutical industry. Although we currently do not have any products on the market, we may be subject, and once our product candidates are approved and we begin commercialization will be subject, to additional healthcare laws and regulations enforced by the federal government and by authorities in the states and foreign jurisdictions in which we conduct our business. These state and federal healthcare laws, commonly referred to as "fraud and abuse" laws, have been applied in recent years to restrict certain marketing practices in the pharmaceutical industry, and include, but are not limited to, anti-kickback, false claims, data privacy and security and transparency statutes and regulations.

Federal false claims laws prohibit any person from knowingly presenting, or causing to be presented, a false claim for payment to the federal government or knowingly making, or causing to be made, a false statement to get a false claim paid. The federal healthcare program anti-kickback statute prohibits, among other things, knowingly and willfully offering, paying, soliciting or receiving remuneration to induce, or in return for, purchasing, leasing, ordering or arranging for the purchase, lease or order of any healthcare item or service reimbursable under Medicare, Medicaid or other federally financed healthcare programs. This statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on the one hand and prescribers, purchasers and formulary managers on the other. Although there are several statutory exemptions and regulatory safe harbors protecting certain common activities from prosecution, the exemptions and safe harbors are drawn narrowly, and practices that involve remuneration intended to induce prescribing, purchasing or recommending may be subject to scrutiny if they do not qualify for an exemption or safe harbor. Most states also have statutes or regulations similar to the federal anti-kickback law and federal false claims laws, which may apply to items such as pharmaceutical products and services reimbursed by private insurers. Administrative, civil and criminal sanctions may be imposed under these federal and state laws.

Over the past few years, a number of pharmaceutical and other healthcare companies have been prosecuted under these laws for a variety of promotional and marketing activities, such as:

- providing free trips, free goods, sham consulting fees and grants and other monetary benefits to prescribers;
- reporting to pricing services inflated average wholesale prices that were then used by federal programs to set reimbursement rates;
- engaging in off-label promotion; and
- submitting inflated best price information to the Medicaid Rebate Program to reduce liability for Medicaid rebates.

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

HIPAA created new federal criminal statutes that prohibit knowingly and willfully executing, or attempting to execute, a scheme to defraud or obtain, by means of false or fraudulent pretenses, representations, or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, including private third-party payors, and knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of, or payment for, healthcare benefits, items or services.

In addition, we may be subject to data privacy and security regulation by both the federal government and the states in which we conduct our business. HIPAA, as amended by HITECH, and its implementing regulations, imposes certain requirements relating to the privacy, security and transmission of individually identifiable health information. Among other things, HITECH makes HIPAA's security standards directly applicable to business associates—independent contractors or agents of covered entities that receive or obtain protected health information in connection with providing a service on behalf of a covered entity. HITECH also created four new tiers of civil monetary penalties, and newly empowered state attorneys general with the authority to enforce HIPAA. In January 2013, the Office for Civil Rights of the U.S. Department of Health and Human Services issued the Final Omnibus Rule under HIPAA pursuant to HITECH that makes significant changes to the privacy, security and breach notification requirements and penalties. The Final Omnibus Rule generally took effect in September 2013 and enhances certain privacy and security protections, and strengthens the government's ability to enforce HIPAA. The Final Omnibus Rule also enhanced requirements for both covered entities and business associates regarding notification of breaches of unsecured protected health information. In addition, state laws govern the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways. These state laws may not have the same effect and often are not pre-empted by HIPAA, thus complicating compliance efforts.

Additionally, the PPACA also included the federal Physician Payments Sunshine Act, which requires certain manufacturers of drugs, devices, biologicals and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to report annually information related to certain payments or other transfers of value made or distributed to physicians and teaching hospitals, or to entities or individuals at the request of, or designated on behalf of, the physicians and teaching hospitals and to report annually certain ownership and investment interests held by physicians and their immediate family members. Failure to comply with required reporting requirements could subject applicable manufacturers and others to substantial civil money penalties.

Also, many states have similar healthcare statutes or regulations that apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payor. Certain states require pharmaceutical companies to implement a comprehensive compliance program that includes a limit or outright ban on expenditures for, or payments to, individual medical or health professionals and/or require pharmaceutical companies to track and report gifts and other payments made to physicians and other healthcare providers.

If our operations are found to be in violation of any of the healthcare laws or regulations described above or any other laws that apply to us, we may be subject to penalties, including potentially significant criminal, civil or administrative penalties, damages, fines, disgorgement, individual imprisonment, exclusion of products from reimbursement under government programs, contractual damages, reputational harm, administrative burdens, diminished profits and future earnings or 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 of our products will be sold in a foreign country, we may be subject to similar foreign laws and regulations, which may include, for instance, applicable post-marketing requirements, including safety surveillance, fraud and abuse laws, and implementation of corporate compliance programs and reporting of payments or transfers of value to healthcare professionals.

If we do not comply with laws regulating the protection of the environment and health and human safety, our business could be adversely affected.

Our research and development involves, and may in the future involve, the use of potentially hazardous materials and chemicals. Our operations may produce hazardous waste products. Although we believe that our safety procedures for handling and disposing of these materials comply with the standards mandated by local, state and federal laws and regulations, the risk of accidental contamination or injury from these materials cannot be eliminated. If an accident occurs, we could be held liable for resulting damages, which could be substantial. We are also subject to numerous environmental, health and workplace safety laws and regulations and fire and building codes, including those governing laboratory procedures, exposure to blood-borne pathogens, use and storage of flammable agents and the handling of biohazardous materials. Although we maintain workers' compensation insurance as prescribed by the Washington State and the Province of British Columbia to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of these 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. Additional federal, state and local laws and regulations affecting our operations may be adopted in the future. We may incur substantial costs to comply with, and substantial fines or penalties if we violate, any of these laws or regulations.

We expect to change from foreign private issuer to U.S. domestic issuer status in the future, which may result in additional costs and expenses to us.

We are currently a "foreign private issuer," as such term is defined in Rule 405 under the U.S. Securities Act of 1933, as amended, or the Securities Act, and are not subject to the same requirements that are imposed upon U.S. domestic issuers by the SEC. While we have voluntarily chosen to file periodic reports on U.S. domestic issuer forms, such as this Annual Report on Form 10-K, we will maintain our status as a foreign private issuer and are not subject to certain other requirements imposed on U.S. domestic issuers. However, we will no longer be a foreign private issuer if a majority of our common shares are held in the United States and (i) a majority of our directors or executive officers are U.S. citizens or residents; (ii) a majority of our assets are located in the United States; or (iii) our business is administered principally in the United States. As of December 31, 2017, the majority of our common shares are held in the United States. Moreover, the majority of our directors are U.S. citizens. Accordingly, with the expectation that we may no longer be considered a foreign private issuer as of the next determination date, we have voluntarily chosen to file periodic reports on U.S. domestic issuer forms, beginning with this Annual Report on Form 10-K. The next determination date with respect to our foreign private issuer status is June 30, 2018. If, as we expect, we no longer qualify as a foreign private issuer on that determination date, as of January 1, 2019 we will no longer be eligible to use the rules and forms designated for foreign private issuers and we will be considered a U.S. domestic issuer. The regulatory and compliance costs to us under U.S. securities laws as a U.S. domestic issuer may be significantly more than the costs incurred as a foreign private issuer. If we are not a foreign private issuer, we will be required to file periodic and current reports and registration statements on U.S. domestic issuer forms with the SEC, which are generally more detailed and extensive than the forms available to a foreign private issuer. In addition, we will no longer be eligible to rely upon exemptions from corporate governance requirements that are available to foreign private issuers or to benefit from other accomodations for foreign private issuers under the rules of the SEC or NYSE.

Risks Related to Employee Matters and Managing Growth

Our future success depends on our ability to retain key executives and to attract, retain and motivate qualified personnel.

We are highly dependent on the research and development, clinical and business expertise of Dr. Ali Tehrani, Ph.D., our President and Chief Executive Officer, Mr. Neil Klompas, our Chief Financial Officer, and other members of our senior management, scientific and clinical team. Although we have entered into employment agreements with our executive officers, each of them may terminate their employment with us at any time. We currently maintain "key person" insurance coverage for Dr. Tehrani (C$5.0 million) and Mr. Neil Klompas (C$2.0 million). The loss of the services of our executive officers or other key employees could impede the achievement of our research, development and commercialization objectives and seriously harm our ability to successfully implement our business strategy.

Recruiting and retaining qualified scientific, clinical, manufacturing and sales and marketing personnel will also be critical to our success. In addition, we will need to expand and effectively manage our managerial, operational, financial, development and other resources in order to successfully pursue our research, development and commercialization efforts for our existing and future product candidates. Furthermore, replacing executive officers and key employees may be difficult and may take an extended period of time because of the limited talent pool in our industry due to the breadth of skills and experience required to successfully develop, gain regulatory approval of and commercialize products. Intense competition for attracting key skill-sets may limit our ability to retain and motivate these key personnel on acceptable terms. We also experience competition for the hiring of scientific and clinical personnel from universities and research institutions. 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 by employers other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability. If we are unable to continue to attract and retain high quality personnel, our ability to pursue our growth strategy will be limited.

We will need to grow our organization, and we may experience difficulty in managing this growth, which could disrupt our operations.

As of December 31, 2017, we had 145 full-time employees. As our development and commercialization plans and strategies develop, we expect to expand our employee base for managerial, operational, financial and other resources. Additionally, as our product candidates enter and advance through preclinical studies and any clinical trials, we will need to expand our development, manufacturing, regulatory sales and marketing capabilities or contract with other organizations to provide these capabilities for us. Future growth would impose significant added responsibilities on members of management, including the need to identify, recruit, maintain, motivate and integrate additional employees. Also, our management may need to divert a disproportionate amount of their attention away from our day-to-day activities and devote a substantial amount of time to managing these growth activities. We may not be able to effectively manage the expansion of our operations, which may result in weaknesses in our infrastructure, give rise to operational errors, loss of business opportunities, loss of employees and reduced productivity amongst remaining employees. Our expected growth could require significant capital expenditures and may divert financial resources from other projects, such as the development of existing and additional product candidates. If our management is unable to effectively manage our expected growth, our expenses may increase more than expected, our ability to generate or grow revenue could be reduced and we may not be able to implement our business strategy. Our future financial performance and our ability to commercialize our product candidates and compete effectively with others in our industry will depend on our ability to effectively manage any future growth.

Risks Related to Our Common Shares

Our share price is likely to be volatile and the market price of our common shares may drop below the price paid by shareholders.

Investors should consider an investment in our common shares as risky and invest only if they can withstand a significant loss and wide fluctuations in the market value of their investment. In addition, the stock market has recently 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. Some of the factors that may cause the market price of our common shares to fluctuate or decrease include:

- results and timing of our clinical trials and clinical trials of our competitors' products;
- failure or discontinuation of any of our development programs;
- issues in manufacturing our product candidates or future approved products;
- regulatory developments or enforcement in the United States and foreign countries with respect to our product candidates or our competitors' products;
- competition from existing products or new products that may emerge;
- developments or disputes concerning patents or other proprietary rights;

- introduction of technological innovations or new commercial products by us or our competitors;
- announcements by us, our strategic partners or our competitors of significant acquisitions, strategic partnerships, joint ventures, or capital commitments;
- changes in estimates or recommendations by securities analysts that cover our common shares;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- public concern over our product candidates or any future approved products;
- litigation;
- future sales of our common shares;
- share price and volume fluctuations attributable to inconsistent trading volume levels of our shares;
- additions or departures of key personnel;
- changes in the structure of health care payment systems in the United States or overseas;
- failure of any of our product candidates, if approved, to achieve commercial success;
- economic and other external factors or other disasters or crises;
- period-to-period fluctuations in our financial condition and results of operations, including the timing of receipt of any milestone or other payments under commercialization or licensing agreements;
- general market conditions and market conditions for biopharmaceutical stocks;
- overall fluctuations in U.S. equity markets; and
- other factors that may be unanticipated or out of our control.

In addition, in the past, when the market price of a stock has been volatile, holders of that stock have instituted securities class action litigation against the company that issued the stock. If any of our shareholders brought a lawsuit against us, we could incur substantial costs defending the lawsuit and divert the time and attention of our management, which could seriously harm our business.

An active trading market for our common shares may not be sustained.

An active trading market for our shares may not be sustained. If an active market for our common shares does not continue, it may be difficult for our shareholders to sell their shares without depressing the market price for the shares or sell their shares at or above the prices at which they acquired their shares or sell their shares at the time they would like to sell. Any inactive trading market for our common shares may also impair our ability to raise capital to continue to fund our operations by selling shares and may impair our ability to acquire other companies or technologies by using our shares as consideration.

Substantial future sales of our common shares, or the perception that these sales could occur, may cause the price of our common shares to drop significantly, even if our business is performing well.

A large volume of sales of our common shares could decrease the prevailing market price of our common shares and could impair our ability to raise additional capital through the sale of equity securities in the future. Even if a substantial number of sales of our common shares does not occur, the mere perception of the possibility of these sales could depress the market price of our common shares and have a negative effect on our ability to raise capital in the future.

We incur significant costs as a result of operating as a public company, and our management is required to devote substantial time to corporate governance standards.

As a public company, we incur significant legal, accounting and other expenses. In addition, our administrative staff are required to perform additional tasks not required for a private company. For example, as a public company, we have adopted additional internal controls and disclosure controls and procedures, retained a transfer agent and adopted an insider trading policy. As a public company, we bear all of the internal and external costs of preparing and distributing periodic public reports in compliance with our obligations under the securities laws. We expect these costs to increase in 2018 as we transition from filing periodic and current reports and registration statements, as applicable, with the SEC on forms available to foreign private issuers to those required to be filed by domestic issuers and to otherwise prepare for the anticipated change from a foreign private issuer to a U.S. domestic issuer.

In addition, regulations and standards relating to corporate governance and public disclosure, including the Sarbanes-Oxley Act and the related rules and regulations implemented by the SEC, the applicable Canadian securities regulators, the New York Stock Exchange, or NYSE, and the Toronto Stock Exchange, or TSX, have legal and financial compliance costs and make some compliance activities time consuming. We intend to invest resources to comply with evolving laws, regulations and standards, and such investment will result in increased general and administrative expenses and may divert management's time and attention from our other business activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to practice, regulatory authorities may initiate legal proceedings against us and our business may be harmed. Additionally, as a public company, we maintain our directors' and officers' liability insurance coverage, which results in higher insurance costs. In the future, it may be more expensive or more difficult for us to obtain director and officer liability insurance, and we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. These factors could also make it more difficult for us to attract and retain qualified members of our board of directors, particularly to serve on our audit committee and compensation committee, and qualified executive officers.

Under the corporate governance standards of the NYSE, a majority of our board of directors and each member of our audit committee must be an independent director no later than the first anniversary of the completion of our initial public offering (IPO). The policies of the TSX require our board of directors to consist of at least two independent directors and Canadian securities laws require each member of the audit committee to be independent within the meaning of Canadian securities laws. As of the date of this Annual Report on Form 10-K, we meet these requirements but we may in the future encounter difficulty in attracting and retaining qualified persons to serve on our board of directors and the audit committee, and our board of directors and management may be required to divert significant time and attention and resources away from our business to identify qualified directors. If we fail to attract and retain the required number of independent directors, we may be subject to the delisting of our common shares from the NYSE and TSX.

As a foreign private issuer, we are subject to different U.S. securities laws and rules than a U.S. domestic issuer, in particular, certain disclosure requirements, which could limit the information publicly available to our shareholders.

As a foreign private issuer, we are currently not required to comply with all of the periodic disclosure and current reporting requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act, that apply to U.S. domestic issuers and, as such, there may be less publicly available information about us than if we were a U.S. domestic issuer. Furthermore, our officers, directors and principal shareholders are currently exempt from the insider reporting and short-swing profit recovery requirements in Section 16 of the Exchange Act. Accordingly, our shareholders may not know on as timely a basis when our officers, directors and principal shareholders purchase or sell their common shares, as the reporting deadlines under the corresponding Canadian insider reporting requirements are longer. As a foreign private issuer, we are also exempt from the requirements of Regulation FD (Fair Disclosure) which, generally, are meant to ensure that select groups of investors are not privy to specific information about an issuer before other investors. As a result of such varied reporting obligations, shareholders should not expect to receive the same information at the same time as information provided by U.S. domestic issuers.

In addition, as a foreign private issuer, we have the option to follow certain Canadian corporate governance practices rather than those of the United States, except to the extent that such laws would be contrary to U.S. securities laws, provided that we disclose the requirements we are not following and describe the Canadian practices we follow instead. As a result, our shareholders may not have the same protections afforded to shareholders of companies that are subject to all domestic U.S. corporate governance requirements. As described elsewhere in this Annual Report on Form 10-K, we expect to no longer qualify as a foreign private issuer as of our next determination date of June 30, 2018, such that as of January 1, 2019, we will be considered a U.S. domestic issuer.

We are an emerging growth company, and any decision on our part to comply only with certain reduced reporting and disclosure requirements applicable to emerging growth companies could make our common shares less attractive to investors.

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act, or JOBS Act. For as long as we continue to be an emerging growth company, we may choose to take advantage of exemptions from various reporting requirements applicable to other public companies that are not emerging growth companies, including, but not limited to, not being required to have our independent registered public accounting firm audit our internal control over financial reporting under Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved. We could be an emerging growth company for up to five years following the completion of our IPO on May 3, 2017, although, if we have more than $1.07 billion in annual revenue, if the market value of our common shares held by non-affiliates exceeds $700 million as of June 30 of any year, or we issue more than $1.0 billion of non-convertible debt over a three-year period before the end of that five-year period, we would cease to be an emerging growth company as of the following December 31. Investors could find our common shares less attractive if we choose to rely on these exemptions. If some investors find our common shares less attractive as a result of any choices to reduce future disclosure, there may be a less active trading market for our common shares and our share price may be more volatile.

If we fail to maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results or prevent fraud. As a result, shareholders could lose confidence in our financial and other public reporting, which would harm our business and the trading price of our common shares.

Effective internal control over financial reporting is necessary for us to provide reliable financial reports and, together with adequate disclosure controls and procedures, are designed to prevent fraud. Any failure to implement required new or improved controls, or difficulties encountered in their implementation, could cause us to fail to meet our reporting obligations.

Pursuant to Section 404 of the Sarbanes-Oxley Act, or Section 404, and related rules adopted by the SEC and the U.S. Public Company Accounting Oversight Board, or PCAOB, and National Instrument 52-109 – Certification of Disclosure in Issuers' Annual and Interim Filings, or NI 52-109, our management is required to disclose changes made in our internal control over financial reporting on a quarterly basis and assess the effectiveness of our disclosure controls and procedures annually. We have elected to take advantage of certain exceptions from reporting requirements that are available to emerging growth companies under the JOBS Act and therefore we are not required to deliver an auditor's attestation report on the effectiveness of our internal control over financial reporting pursuant to Section 404 until after the date we are no longer an emerging growth company. We could be an emerging growth company for up to five years from our IPO, although circumstances could cause us to lose that status earlier, including if the market value of our shares held by non-affiliates exceeds $700 million as of any June 30 before that time, in which case we would no longer be an emerging growth company as of the following December 31. An independent assessment of the effectiveness of our internal control could detect problems that our management's assessment might not. Undetected material weaknesses in our internal controls could lead to financial statement restatements and require us to incur the expense of remediation. Inferior internal controls could also cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of our common shares.

Our management and independent registered public accounting firm did not perform an evaluation of the design and operating effectiveness of our internal control over financial reporting in accordance with the provisions of Section 404 and NI 52-109 as of December 31, 2015 and December 31, 2016. Had we and our independent registered public accounting firm performed such an evaluation, control deficiencies may have been identified by management or our independent registered public accounting firm, and those control deficiencies could have also represented one or more material weaknesses. Undetected material weaknesses in our internal controls could lead to financial statement restatements and require us to incur the expense of remediation.

As of December 31, 2017, our management did perform an evaluation of the design and operating effectiveness of our internal control over financial reporting based on the Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission, or 2013 COSO Framework, in accordance with the provisions of NI 52-109. However, no independent assessment of the design and operating effectiveness of our internal controls was performed by our independent registered public accounting firm as of December 31, 2017 pursuant to certain exceptions under the JOBS Act, as described above. Had our independent registered public accounting firm performed such an evaluation, control deficiencies may have been identified by our independent registered public accounting firm and those control deficiencies could have also represented one or more material weaknesses. Undetected material weaknesses in our internal controls could lead to financial statement restatements and require us to incur the expense of remediation.

We are at risk of securities class action litigation.

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

We do not anticipate paying cash dividends, and accordingly, shareholders must rely on share appreciation for any return on their investment.

We have never paid any dividends on our common shares. We currently intend to retain our future earnings, if any, to fund the development and growth of our business and do not anticipate that we will declare or pay any cash dividends on our common shares in the foreseeable future. As a result, capital appreciation, if any, of our common shares will be the sole source of gain on investment in our common shares for the foreseeable future. Investors seeking cash dividends should not invest in our common shares.

The NYSE or TSX may delist our securities from its exchange, which could limit investors' ability to make transactions in our securities and subject us to additional trading restrictions.

Our securities may fail to meet the continued listing requirements to be listed on the NYSE or TSX. If the NYSE or TSX delists our common shares from trading on its exchange, we could face significant material adverse consequences, including:

- a limited availability of market quotations for our securities;
- a determination that our common shares is a "penny stock" which will require brokers trading in our common shares to adhere to more stringent rules and possibly result in a reduced level of trading activity in the secondary trading market for our common shares;
- a limited amount of news and analyst coverage for our company; and
- a decreased ability to issue additional securities or obtain additional financing in the future.

We are governed by the corporate laws of Canada which in some cases have a different effect on shareholders than the corporate laws of the United States.

We are governed by the BCBCA and other relevant laws, which may affect the rights of shareholders differently than those of a company governed by the laws of a U.S. jurisdiction, and may, together with our charter documents, have the effect of delaying, deferring or discouraging another party from acquiring control of our company by means of a tender offer, a proxy contest or otherwise, or may affect the price an acquiring party would be willing to offer in such an instance. The material differences between the BCBCA and Delaware General Corporation Law, or DGCL, that may have the greatest such effect include, but are not limited to, the following: (i) for certain corporate transactions (such as mergers and amalgamations or amendments to our articles) the BCBCA generally requires the voting threshold to be a special resolution approved by 66 $^{2}/_{3}$% of shareholders, or as set out in the articles, as applicable, whereas DGCL generally only requires a majority vote; and (ii) under the BCBCA a holder of 5% or more of our common shares can requisition a special meeting of shareholders, whereas such right does not exist under the DGCL. We cannot predict whether investors will find our company and our common shares less attractive because we are governed by foreign laws.

U.S. civil liabilities may not be enforceable against us, our directors, our officers or certain experts named in this Annual Report on Form 10-K.

We are governed by the BCBCA and our principal place of business is in Canada. Many of our directors and officers, as well as certain experts named herein, reside outside of the United States, and all or a substantial portion of their assets as well as all or a substantial portion of our assets are located outside the United States. As a result, it may be difficult for investors to effect service of process within the United States upon us and such directors, officers and experts or to enforce judgments obtained against us or such persons, in U.S. courts, in any action, including actions predicated upon the civil liability provisions of U.S. federal securities laws or any other laws of the United States. Additionally, rights predicated solely upon civil liability provisions of U.S. federal securities laws or any other laws of the United States may not be enforceable in original actions, or actions to enforce judgments obtained in U.S. courts, brought in Canadian courts, including courts in the Province of British Columbia. Furthermore, provisions in our articles provide that, unless we consent in writing to the selection of an alternative forum, the Supreme Court of British Columbia and the appellate courts therefrom, to the fullest extent permitted by law, will be the sole and exclusive forum for certain actions or proceedings brought against us, our directors and/or our officers. These provisions may limit our shareholders' ability to bring a claim against us in a judicial forum that our shareholders consider favorable or convenient for such disputes and may discourage lawsuits with respect to such claims.

If securities or industry analysts do not publish research or publish inaccurate or unfavorable research about our business, our share price and trading volume could decline.

The trading market for our common shares will depend on the research and reports that securities or industry analysts publish about us or our business. We do not have any control over these analysts. We cannot assure that analysts will cover us or provide accurate or favorable coverage. If one or more of the analysts who cover us downgrade our stock or change their opinion of our common shares negatively, our share price would likely decline. If one or more of these analysts cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which could cause our share price or trading volume to decline. Moreover, the research and reports that analysts publish may suggest a price for our common shares that does not fully or accurately reflect the true value of our company. Furthermore, even if such analyst publications are favorable, these reports could have negative consequences for us.

U.S. holders of the company's shares may suffer adverse tax consequences if we are characterized as a passive foreign investment company.

We believe that we were not classified as a passive foreign investment company, or PFIC, for the taxable year ending December 31, 2017. However, the determination as to whether we are a PFIC for any taxable year is based on the application of complex U.S. federal income tax rules that are subject to differing interpretations. If we are a PFIC for any taxable year during which a U.S. Holder (as defined under Item 5, "Market for Registrant's Common Equity, Related Shareholder Matters and Issuer Purchases of Equity Securities – Certain United States Income Tax Considerations For United States Holders") holds the common shares, it would likely result in adverse U.S. federal income tax consequences for such U.S. Holder. U.S. Holders should carefully read Item 5, "Market for Registrant's Common Equity, Related Shareholder Matters and Issuer Purchases of Equity Securities – Certain United States Income Tax Considerations For United States Holders" for more information and consult their own tax advisors regarding the likelihood and consequences if we are treated as a PFIC for U.S. federal income tax purposes, including the advisability of making a "qualified electing fund" election (including a protective election), which may mitigate certain possible adverse U.S. federal income tax consequences but may result in an inclusion in gross income without receipt of such income.

Insiders have substantial control over us which could delay or prevent a change in corporate control or result in the entrenchment of management or the board of directors.

Our directors, named executive officers and principal shareholders, together with their affiliates and related persons, beneficially own, in the aggregate, approximately 51.3% of our outstanding common shares as of February 28, 2018. See Item 12, "Security Ownership of Certain Beneficial Owners and Management and Related Shareholder Matters." As a result, these shareholders, if acting together, may have the ability to determine the outcome of matters submitted to our shareholders for approval, including the election and removal of directors and any merger, or sale of all or substantially all of our assets. In addition, these persons, acting together, may have the ability to control the management and affairs of our company. Accordingly, this concentration of ownership may harm the market price of our common shares by:

- delaying, deferring, or preventing a change in control;
- entrenching our management or the board of directors;
- impeding a merger, takeover, or other business combination involving us; or
- discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control of us.

Provisions in our corporate charter documents and Canadian law could make an acquisition of us, which may be beneficial to our shareholders, more difficult and may prevent attempts by our shareholders to replace or remove our current management and/or limit the market price of our common shares.

Provisions in our notice of articles and articles, as well as certain provisions under the BCBCA, and applicable Canadian securities laws, may discourage, delay or prevent a merger, acquisition or other change in control of us that shareholders may consider favorable, including transactions in which they might otherwise receive a premium for their common shares. These provisions include the establishment of a staggered board of directors, which divides the board into three groups, with directors in each group serving a three-year term. The existence of a staggered board can make it more difficult for shareholders to replace or remove incumbent members of our board of directors. As such, these provisions could also limit the price that investors might be willing to pay in the future for our common shares, thereby depressing the market price of our common shares. In addition, because our board of directors is responsible for appointing the members of our management team, these provisions may frustrate or prevent any attempts by our shareholders to replace or remove our current management by making it more difficult for shareholders to replace members of our board of directors. Among other things, these provisions include the following:

- shareholders cannot amend our articles unless such amendment is approved by shareholders holding at least a majority of the shares entitled to vote on such approval;
- our board of directors may, without shareholder approval, issue preferred shares having any terms, conditions, rights, preferences and privileges as the board of directors may determine; and
- shareholders must give advance notice to nominate directors or to submit proposals for consideration at shareholders' meetings.

Item 1B. Unresolved Staff Comments

Not applicable.

Item 2. Properties

Our headquarters are located in Vancouver, British Columbia, where we occupy 27,068 square feet of office and 11,254 square feet of laboratory space. We lease both our office and laboratory space and the term of each lease expires in August 2021.

Our U.S. office is located in Seattle, Washington, where we occupy approximately 10,922 square feet. We lease this office space and the term of the lease expires in February 2022.

We believe that our existing facilities are adequate to meet our business requirements for the near-term and that additional space will be available on commercially reasonable terms, if required.

Item 3. Legal Proceedings

From time to time, we may become involved in legal proceedings or be subject to claims arising in the ordinary course of our business. As of December 31, 2017, we are not a party to any legal proceedings that, in the opinion of our management, would reasonably be expected to have a material adverse effect on our business, financial condition, operating results or cash flows if determined adversely to us. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

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

Market Information

Our common shares have been traded on the NYSE and TSX since April 28, 2017 under the symbol "ZYME." Prior to such time, there was no public market for our common shares. The following table sets forth the high and low sales prices per common share as reported on the NYSE and TSX for the periods indicated.

	NYSE		TSX	
	High	Low	High	Low
Quarter Ended	US$		C$	
31-Dec-17	9.19	6.87	11.50	9.00
30-Sep-17	8.73	6.48	11.05	8.75
30-Jun-17	13.28	8.30	18.60	10.50
April 28, 2017 to December 31, 2017	13.28	6.48	18.60	8.75

On March 1, 2018, the last reported sale price of our common shares on the NYSE was $10.42 per share, and on the TSX was C$13.54 per share.

Holders

As at February 28, 2018, we had 68 shareholders of record holding our common shares of which 10 were U.S. shareholders. A substantially greater number of holders of Zymeworks' common stock are "street name" or beneficial holders whose shares of record are held by banks, brokers, and other financial institutions.

Dividends

We have never paid any dividends on our common shares or any of our other securities. We currently intend to retain any future earnings to finance the growth and development of our business, and we do not anticipate that we will declare or pay any cash dividends in the foreseeable future. Any future determination to pay cash dividends will be at the discretion of our board of directors and will be dependent upon our financial condition, results of operations, capital requirements, restrictions under any future indebtedness and other factors the board of directors deems relevant.

Certain Canadian Income Tax Considerations

Dividends

Residents of Canada

Unless stated otherwise, dividends paid by the Company to Canadian residents are "eligible dividends" as defined in the Income Tax Act (Canada).

Non-residents of Canada

Dividends paid or credited to non-residents of Canada are subject to a 25% withholding tax unless reduced by an applicable tax treaty. Under the Canada-United States Tax Convention (1980), or the Convention, U.S. residents who are entitled to all of the benefits of the Convention are generally subject to a 15% withholding tax.

The Canada Revenue Agency allows residents of any country with which Canada has a tax treaty to certify that they reside in that country so they are eligible to have Canadian non-resident tax withheld on the payment of dividends at the reduced tax treaty rate. Registered shareholders should complete the Declaration of Eligibility for Benefits (Reduced Tax) under a Tax Treaty for a Non-Resident Person and return it to our transfer agent, ComputerShare Investor Services Inc.

Certain United States Income Tax Considerations For United States Holders

The following discussion summarizes the anticipated material U.S. federal income tax consequences of the ownership and disposition of our common shares. It applies only to U.S. Holders (as defined below) that acquire and hold our common shares as capital assets (generally, property held for investment purposes) and is of a general nature. This summary should not be construed to constitute legal or tax advice to any particular U.S. Holder.

This section does not apply to U.S. Holders subject to special rules, including, without limitation, brokers, dealers in securities or currencies, traders in securities that elect to use a mark-to-market method of accounting for securities holdings, tax-exempt organizations, insurance companies, banks, thrifts and other financial institutions, persons liable for alternative minimum tax, persons that hold an interest in an entity that holds the common shares, persons that will own, or will have owned, directly, indirectly or constructively 10% or more (by vote or value) of the Company's equity, persons that hold the common shares as part of a hedging, integration, conversion or constructive sale transaction or a straddle, or persons whose functional currency is not the U.S. dollar.

This discussion does not purport to be a complete analysis of all of the potential U.S. federal income tax considerations that may be relevant to U.S. Holders in light of their particular circumstances. Further, it does not address any aspect of foreign, state, local or estate or gift taxation or the 3.8% surtax imposed on certain net investment income. **Each prospective investor in our common shares should consult its own tax advisor as to the U.S. federal, state, local, foreign and any other tax consequences of the ownership and disposition of the common shares.**

This discussion is based on the Internal Revenue Code of 1986, as amended (the "Code"), its legislative history, U.S. Treasury Regulations, IRS rulings, published court decisions, and the Canada-United States Tax Convention, or the Convention, all as in effect as of the date hereof, and any of which may be repealed, revoked or modified (possibly with retroactive effect) so as to result in U.S. federal income tax consequences different from those discussed below. This summary is applicable to U.S. Holders who are residents of the United States for purposes of the Convention and who qualify for the full benefits of the Convention.

A "U.S. Holder" is a beneficial owner of the common shares who, for U.S. federal income tax purposes, is a citizen or individual resident of the United States, a corporation (or other entity that is classified as a corporation for U.S. federal income tax purposes) that is created or organized in or under the laws of the United States or any State thereof or the District of Columbia, an estate whose income is subject to U.S. federal income tax regardless of its source, or a trust (i) if a U.S. court can exercise primary supervision over the trust's administration and one or more U.S. persons are authorized to control all substantial decisions of the trust, or (ii) that validly elects to be treated as a U.S. person for U.S. federal income tax purposes.

If a partnership or other pass-through entity holds the common shares of the Company, the U.S. federal income tax treatment of a partner, beneficiary, or other stakeholder will generally depend on the status of that person and the tax treatment of the pass-through entity. A partner, beneficiary, or other stakeholder in a pass-through entity holding the common shares should consult its own tax advisor with regard to the U.S. federal income tax treatment of its investment in the common shares.

Distributions on the Common Shares

Subject to the passive foreign investment company, or PFIC, rules discussed below, the gross amount of any distribution received by a U.S. Holder with respect to the common shares (including any amounts withheld to pay Canadian withholding taxes) will be included in the gross income of the U.S. Holder as a dividend to the extent attributable to the Company's current or accumulated earnings and profits, as determined under U.S. federal income tax principles. The Company does not intend to calculate its earnings and profits under U.S. federal income tax rules. Accordingly, U.S. Holders should expect that a distribution generally will be treated as a dividend for U.S. federal income tax purposes. Unless the Company is treated as a PFIC for the taxable year in which it pays a distribution or in the prior taxable year (see "Passive Foreign Investment Company Rules" below), the Company believes that it may qualify as a "qualified foreign corporation," in which case distributions treated as dividends and received by non-corporate U.S. Holders may be eligible for a preferential tax rate. Distributions on the common shares generally will not be eligible for the dividends received deduction available to U.S. Holders that are corporations.

The amount of any dividend paid in Canadian dollars (including any amounts withheld to pay Canadian withholding taxes) will equal the U.S. dollar value of the Canadian dollars calculated by reference to the exchange rate in effect on the date the dividend is received by the U.S. Holder, regardless of whether the Canadian dollars are converted into U.S. dollars. A U.S. Holder will have a tax basis in the Canadian dollars equal to their U.S. dollar value on the date of receipt. If the Canadian dollars received are converted into U.S. dollars on the date of receipt, the U.S. Holder should generally not be required to recognize foreign currency gain or loss in respect of the distribution. If the Canadian dollars received are not converted into U.S. dollars on the date of receipt, a U.S. Holder may recognize foreign currency gain or loss on a subsequent conversion or other disposition of the Canadian dollars. Such gain or loss will be treated as U.S. source ordinary income or loss.

A U.S. Holder may be entitled to deduct or credit Canadian withholding tax imposed on dividends paid to a U.S. Holder, subject to applicable limitations in the Code. For purposes of calculating a U.S. Holder's foreign tax credit, dividends received by such U.S. Holder with respect to the common shares of a foreign corporation generally constitute foreign source income. However, and subject to certain exceptions, a portion of the dividends paid by a foreign corporation will be treated as U.S. source income for U.S. foreign tax credit purposes, in proportion to its U.S. source earnings and profits, if U.S. persons own, directly or indirectly, 50% or more of the voting power or value of the foreign corporation's common shares. If a portion of any dividends paid with respect to the common shares are treated as U.S. source income under these rules, it may limit the ability of a U.S. Holder to claim a foreign tax credit for any Canadian withholding taxes imposed in respect of such dividend. Dividends distributed by the Company will generally constitute "passive category" income for U.S. foreign tax credit purposes. The rules governing the foreign tax credit are complex. U.S. Holders are urged to consult their own tax advisors regarding the availability of the foreign tax credit under their particular circumstances, including the impact of, and any exception available to, the special income sourcing rule described in this paragraph.

Sale, Exchange or Other Taxable Disposition of the Common Shares

Subject to the PFIC rules discussed below, a U.S. Holder will recognize a capital gain or loss on the sale, exchange or other taxable disposition of our common shares in an amount equal to the difference between the amount realized for the common shares and the U.S. Holder's adjusted tax basis in the common shares. Capital gains of non-corporate U.S. Holders derived with respect to capital assets held for more than one year are eligible for reduced rates of taxation. The deductibility of capital losses is subject to limitations. Any capital gain or loss recognized by a U.S. Holder generally will be treated as U.S. source gain or loss for U.S. foreign tax credit purposes.

Passive Foreign Investment Company Rules

A foreign corporation will be considered a PFIC for any taxable year in which (1) 75% or more of its gross income is "passive income" under the PFIC rules or (2) 50% or more of the average quarterly value of its assets produce (or are held for the production of) "passive income." For this purpose, "passive income" generally includes interest, dividends, certain rents and royalties, and certain gains. Royalties derived in the active conduct of a trade or business by a corporation in the licensing of property developed or created through its own officers or staff of employees is generally excluded from passive income, and interest, dividends, rents and royalties received from a related person (within the meaning of the PFIC rules) are excluded from passive income to the extent such payments are properly allocable to the active income of such related person. Moreover, for purposes of determining if the foreign corporation is a PFIC, if the foreign corporation owns, directly or indirectly, at least 25%, by value, of the shares of another corporation, it will be treated as if it holds directly its proportionate share of the assets and receives directly its proportionate share of the income of such other corporation. If a corporation is treated as a PFIC with respect to a U.S. Holder for any taxable year, the corporation will continue to be treated as a PFIC with respect to that U.S. Holder in all succeeding taxable years, regardless of whether the corporation continues to meet the PFIC requirements in such years, unless certain elections are made.

The determination as to whether a foreign corporation is a PFIC is based on the application of complex U.S. federal income tax rules, which are subject to differing interpretations, and the determination will depend on the composition of the income, expenses and assets of the foreign corporation from time to time and the nature of the activities performed by its officers and employees. The Company believes that it was not classified as a PFIC for the taxable year ending December 31, 2017. However, the Company cannot provide any assurance regarding its PFIC status for the future taxable years given that the determination of PFIC status is fact-intensive and made on an annual basis. Neither the Company's U.S. counsel nor U.S. tax advisor expresses any opinion with respect to the Company's PFIC status or with respect to the Company's expectations regarding its PFIC status.

If the Company is classified as a PFIC, a U.S. Holder that does not make any of the elections described below would be required to report any gain on the disposition of our common shares as ordinary income, rather than as capital gain, and to compute the tax liability on the gain and any "Excess Distribution" (as defined below) received in respect of common shares as if such items had been earned ratably over each day in the U.S. Holder's holding period (or a portion thereof) for the common shares. The amounts allocated to the taxable year during which the gain is realized or distribution is made, and to any taxable years in such U.S. Holder's holding period that are before the first taxable year in which the Company is treated as a PFIC with respect to the U.S. Holder, would be included in the U.S. Holder's gross income as ordinary income for the taxable year of the gain or distribution. The amount allocated to each other taxable year would be taxed as ordinary income in the taxable year during which the gain is realized or distribution is made at the highest tax rate in effect for the U.S. Holder in that other taxable year and would be subject to an interest charge as if the income tax liabilities had been due with respect to each such prior year. For purposes of these rules, gifts, exchanges pursuant to corporate reorganizations and use of common shares as security for a loan may be treated as a taxable disposition of the common shares. An "Excess Distribution" is the amount by which distributions during a taxable year in respect of a common share exceed 125% of the average amount of distributions in respect thereof during the three preceding taxable years (or, if shorter, the U.S. Holder's holding period for the common shares).

Certain additional adverse tax rules will apply to a U.S. Holder for any taxable year in which the Company is treated as a PFIC with respect to such U.S. Holder and any of the Company's subsidiaries is also treated as a PFIC (a "Subsidiary PFIC"). In such a case, the U.S. Holder will generally be deemed to own its proportionate interest (by value) in any Subsidiary PFIC and be subject to the PFIC rules described above with respect to the Subsidiary PFIC regardless of such U.S. Holder's percentage ownership in the Company.

The adverse tax consequences described above may be mitigated if a U.S. Holder makes a timely "qualified electing fund" election (a "QEF election") with respect to its interest in the PFIC. Consequently, if the Company is classified as a PFIC, it would likely be advantageous for a U.S. Holder to elect to treat the Company as a "qualified electing fund" (a "QEF") with respect to such U.S. Holder in the first year in which it holds our common shares. If a U.S. Holder makes a timely QEF election with respect to the Company, the electing U.S. Holder would be required in each taxable year that the Company is considered a PFIC to include in gross income (i) as ordinary income, the U.S. Holder's pro rata share of the ordinary earnings of the Company and (ii) as capital gain, the U.S. Holder's pro rata share of the net capital gain (if any) of the Company, whether or not the ordinary earnings or net capital gain are distributed. An electing U.S. Holder's basis in common shares will be increased to reflect the amount of any taxed but undistributed income. Distributions of income that had previously been taxed will result in a corresponding reduction of basis in the common shares and will not be taxed again as distributions to the U.S. Holder.

A QEF election made with respect to the Company will not apply to any Subsidiary PFIC; a QEF election must be made separately for each Subsidiary PFIC (in which case the treatment described above would apply to such Subsidiary PFIC). If a U.S. Holder makes a timely QEF election with respect to a Subsidiary PFIC, it would be required in each taxable year to include in gross income its pro rata share of the ordinary earnings and net capital gain of such Subsidiary PFIC, but may not receive a distribution of such income. Such a U.S. Holder may, subject to certain limitations, elect to defer payment of current U.S. federal income tax on such amounts, subject to an interest charge (which would not be deductible for U.S. federal income tax purposes if the U.S. Holder were an individual).

If the Company determines that it, and any subsidiary in which the Company owns, directly or indirectly, more than 50% of such subsidiary's total aggregate voting power, is likely a PFIC in any taxable year, the Company intends to make available to U.S. Holders, upon request and in accordance with applicable procedures, a "PFIC Annual Information Statement" with respect to the Company and any such subsidiary for such taxable year. The "PFIC Annual Information Statement" may be used by U.S. Holders for purposes of complying with the reporting requirements applicable to a QEF election with respect to the Company and any Subsidiary PFIC. The U.S. federal income tax on any gain from the disposition of common shares or from the receipt of Excess Distributions may be greater than the tax if a timely QEF election is made.

Alternatively, if the Company were to be classified as a PFIC, a U.S. Holder could also avoid certain of the rules described above by making a mark-to-market election (instead of a QEF election), provided the common shares are treated as regularly traded on a qualified exchange or other market within the meaning of the applicable U.S. Treasury Regulations. However, a U.S. Holder will not be permitted to make a mark-to-market election with respect to a Subsidiary PFIC. U.S. Holders should consult their own tax advisers regarding the potential availability and consequences of a mark-to-market election, as well as the advisability of making a protective QEF election in case the Company is classified as a PFIC in any taxable year.

During any taxable year in which the Company or any Subsidiary PFIC is treated as a PFIC with respect to a U.S. Holder, that U.S. Holder must file IRS Form 8621. U.S. Holders should consult their own tax advisors concerning annual filing requirements.

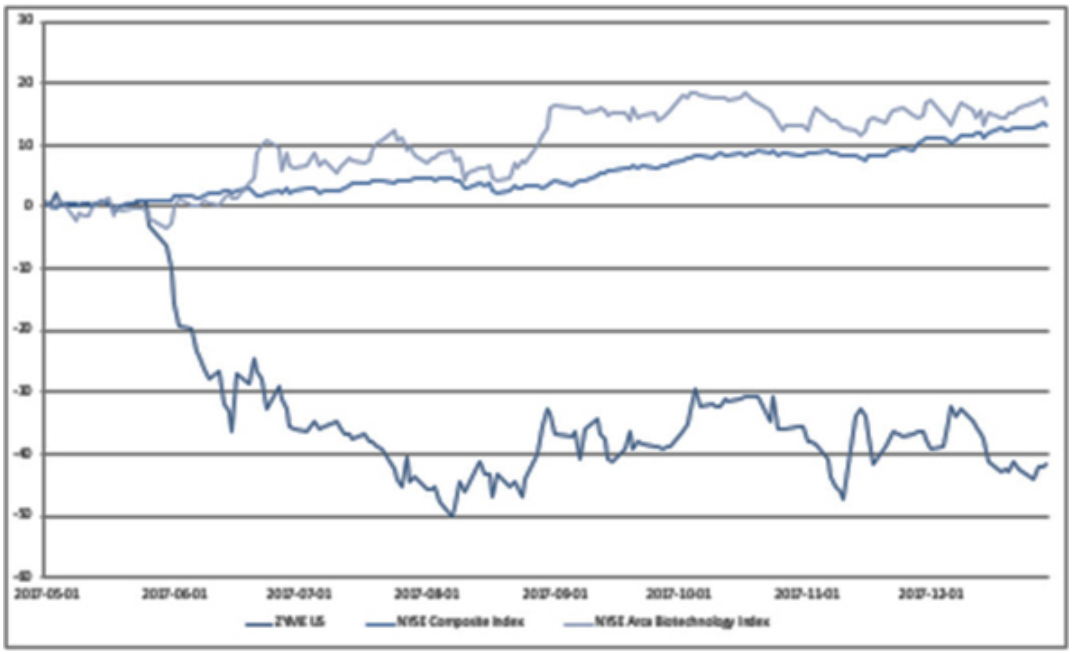
Required Disclosure with Respect to Foreign Financial Assets

Certain U.S. Holders are required to report information relating to an interest in our common shares, subject to certain exceptions (including an exception for common shares held in accounts maintained by certain financial institutions), by attaching a completed IRS Form 8938, Statement of Specified Foreign Financial Assets, with their tax return for each year in which they hold an interest in the common shares. **U.S. Holders are urged to consult their own tax advisors regarding information reporting requirements relating to their ownership of the common shares**.

Performance Graph

This performance graph shall not be deemed "filed" for purposes of Section 18 of the Exchange Act or incorporated by reference into any of our filings under the Securities Act or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.

The following stock performance graph illustrates a comparison of the total cumulative shareholder return on our common shares from April 28, 2017, which is the date our common shares commenced trading on the NYSE, through December 31, 2017, to two indices: the NYSE Composite Index and the NYSE Arca Biotechnology Index. The graph assumes an initial investment of $100 on April 28, 2017, and, where applicable, includes the reinvestment of dividends.



The comparisons in the graph above are required by the SEC and are not intended to forecast or be indicative of possible future performance of our common shares.

Use of Proceeds from Registered Securities

On May 3, 2017, we consummated our initial public offering and sold 4,500,000 shares of common stock at an initial offering price of $13.00 per share for aggregate gross proceeds of $58.5 million before deducting underwriting discounts and commissions and offering expenses paid by us. On May 31, 2017 we completed the sale of an additional 394,467 shares of common stock at an initial offering price of $13.00 per share pursuant to the partial exercise by the underwriters of their over-allotment option, for additional gross proceeds of $5.1 million before deducting underwriting discounts and commissions and offering expenses paid by us. The offer and sale of all of the shares in our initial public offering, including shares sold pursuant to the over-allotment option, were registered under the Securities Act pursuant to a registration statement on Form F-1 (File No. 333-217100), which was declared effective by the SEC on April 27, 2017. No additional shares were registered. The joint book-running managers for our initial public offering were Citigroup Global Markets Canada Inc., Barclays Capital Inc., and Wells Fargo Securities LLC. Canaccord Genuity Corp. served as lead manager, and Cormack Securities Inc. served as co-manager for our initial public offering. Shares of our common stock began trading on the TSX and NYSE on April 28, 2017.

We received net proceeds from our initial public offering of approximately $54.2 million, after deducting underwriting discounts and commissions of $4.5 million and offering expenses of approximately $4.9 million. None of the expenses associated with our initial public offering were paid to directors, officers, persons owning 10% or more of any class of equity securities, or to their associates, or to our affiliates. There has been no material change in the use of proceeds from our planned “Use of Proceeds” as described in the final prospectus dated as of April 27, 2017 and filed with the SEC pursuant to Rule 424(b)(4) under the Securities Act on April 28, 2017.

Recent Sales of Unregistered Securities

From January 1, 2017 until April 28, 2017, we granted our employees, consultants and advisors options to purchase an aggregate of 450,057 common shares under our equity compensation plans at exercise prices ranging from C$22.60 to C$22.65 per share. The options were either issued in an offshore transaction pursuant to Regulation S under the Securities Act or pursuant to Rule 701 under the Securities Act as transactions pursuant to written compensatory plans or pursuant to a written contract relating to compensation.

Issuer Repurchases of Equity Securities

None.

Item 6. Selected Financial Data

The following selected financial data is derived from our audited consolidated financial statements and should be read in conjunction with, and is qualified in its entirety by, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," and Item 8, "Financial Statements and Supplementary Data" contained elsewhere in this Annual Report on Form 10-K. The selected Consolidated Statement of Operations Data for the years ended December 31, 2017, 2016 and 2015 and Consolidated Balance Sheet Data as of December 31, 2017 and 2016 have been derived from our audited consolidated financial statements appearing elsewhere in this Annual Report on Form 10-K. The selected Consolidated Statement of Operations Data for the year ended December 31, 2014 and Consolidated Balance Sheet Data as of December 31, 2015 have been derived from our audited financial statements that are not included in this Annual Report on Form 10-K. Historical results are not necessarily indicative of future results. Our audited annual consolidated financial statements have been prepared in U.S. dollars and in accordance with U.S. Generally Accepted Accounting Principles.

	Year Ended December 31,			
	2017	2016	2015	2014
	(dollars in thousands except share and per share amounts)			
Consolidated Statement of Operations Data				
Revenue	$ 51,762	$ 11,009	$ 9,660	$ 1,670
Operating Expenses:				
Research and development	41,749	36,816	24,654	12,622
Government grants and credits	(1,075)	(1,265)	(251)	(2,149)
	40,674	35,551	24,403	10,473
General and administrative	18,550	12,554	5,217	3,945
Impairment on acquired IPR&D	1,536	768	-	-
Total operating expenses	60,760	48,873	29,620	14,418
Loss from Operations	(8,998)	(37,864)	(19,960)	(12,748)
Change in fair value of warrant liabilities	2,450	(808)	-	-
Other income (expense)	(3,414)	(212)	824	(194)
Loss before income taxes	(9,962)	(38,884)	(19,136)	(12,942)
Income tax expense	(429)	(430)	(34)	-
Deferred income tax expense (recovery)	(15)	5,505	-	-
Net loss	$ (10,406)	$ (33,809)	$ (19,170)	$ (12,942)
Net loss per common share (basic) [(1)]	(0.51)	(2.65)	(1.70)	(1.77)
Net loss per common share (diluted) [(1)]	(0.64)	(2.65)	(1.70)	(1.77)
Weighted-average number of common shares (basic) [(1)]	21,249,414	12,736,567	11,266,451	7,323,985
Weighted-average number of commons shares (diluted) [(1)]	21,321,209	12,736,567	11,266,451	7,323,985

(1) See "Notes to the Consolidated Financial Statements – Summary of Significant Accounting Policies – Net Income (Loss) Per Share" for an explanation of the method used to calculate basic and diluted net income (loss) per common share and the weighted-average number of common shares used in computation of the per common share amounts.

	Year Ended December 31,		
	2017	2016	2015
	(dollars in thousands)		
Consolidated Balance Sheet Data			
Cash and cash equivalents	$ 35,946	$ 16,437	$ 11,519
Short term investments	51,851	23,824	3,641
Working capital	77,674	29,928	12,828
Long-term obligations	866	9,577	59
Total assets	131,955	93,995	23,149
Total liabilities	15,527	26,133	4,910
Redeemable convertible preferred shares	–	58,860	–
Total shareholders' equity	116,428	9,002	18,239

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

The following discussion should be read in conjunction with the attached financial statements and notes thereto. This Annual Report on Form 10-K, including the following sections, contains forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995. These statements are subject to risks and uncertainties that could cause actual results and events to differ materially from those expressed or implied by such forward-looking statements. For a detailed discussion of these risks and uncertainties, see Item 1A, "Risk Factors" of this Annual Report on Form 10-K. We caution the reader not to place undue reliance on these forward-looking statements, which reflect management's analysis only as of the date of this Annual Report on Form 10-K. We undertake no obligation to update forward-looking statements which reflect events or circumstances occurring after the date of this Annual Report on Form 10-K. Throughout this discussion, unless the context specifies or implies otherwise, the terms "Zymeworks," "we," "us," and "our" refer to Zymeworks Inc. and its subsidiary.

Overview

Zymeworks is an innovative, clinical-stage biopharmaceutical company dedicated to the discovery, development and commercialization of next-generation multifunctional biotherapeutics. Our suite of complementary therapeutic platforms and our fully integrated drug development engine provide the flexibility and compatibility to precisely engineer and develop highly differentiated product candidates. These capabilities have resulted in multiple wholly owned product candidates with the potential to drive superior outcomes in large underserved and unaddressed patient populations, as further described below.

Initial Public Offering

On May 3, 2017, we successfully closed our initial public offering (the "IPO") pursuant to which the we sold 4,894,467 common shares (including the sale of 394,467 common shares to the underwriters upon their partial exercise of their over-allotment option to purchase additional common shares on May 31, 2017). The public offering price of the common shares sold in the IPO was $13.00 per share. We received net proceeds of approximately $54.2 million, after underwriting discounts, commissions and estimated offering expenses. The common shares are listed for trading on the New York Stock Exchange and the Toronto Stock Exchange under the symbol "ZYME".

Description of Business and Products

Our lead product candidate, ZW25, is a novel bispecific (dual-targeting) antibody which targets two distinct domains of the human epidermal growth factor receptor 2, or HER2. In our adaptive Phase 1 clinical trial, ZW25 has been well tolerated with promising single agent anti-tumor activity in patients with heavily pretreated HER2-expressing cancers that have progressed after standard of care, including multiple HER2-targeted regimens. Its unique design may enable ZW25 to address patient populations with all levels of HER2 expression, including those with low to intermediate HER2-expressing tumors, who are otherwise limited to chemotherapy or hormone therapy. Approximately 81% of patients with HER2-expressing breast cancer and 57% of patients with HER2-expressing gastric and gastroesophageal junction cancer have tumors that express low to intermediate levels of HER2, making them ineligible for treatment with currently approved HER2-targeted therapies, such as Herceptin and Perjeta, which generated combined sales of $9.5 billion in 2017. Our second product candidate, ZW49, capitalizes on the unique design of ZW25 and is a bispecific antibody-drug conjugate, or ADC, based on the same antibody framework as ZW25 but armed with our proprietary ZymeLink-cytotoxic (potent cancer cell-killing) payload. ZW49 is being advanced in lieu of our prior product candidate, ZW33, based on ZW49's superior therapeutic window (range of doses that are both efficacious and tolerable) and proprietary linker and cytotoxic payload. We designed ZW49 to be a best-in-class HER2-targeting ADC for several indications characterized by HER2 expression, for which we expect to file an Investigational New Drug, or IND, application in 2018. We are also advancing a deep pipeline of preclinical product candidates and discovery-stage programs in immuno-oncology and other therapeutic areas. In addition to our wholly owned pipeline, two of our therapeutic platforms have been further leveraged through multiple revenue-generating strategic partnerships with the following global pharmaceutical companies: Merck Sharp & Dohme Research Ltd., Eli Lilly and Company, Celgene Corporation and Celgene Alpine Investment Co. LLC, GlaxoSmithKline Intellectual Property Development Limited, Daiichi Sankyo Co., Ltd., and Janssen Biotech, Inc. or "Merck", "Lilly", "Celgene", "GSK", "Daiichi Sankyo" and "Janssen", respectively.

Our proprietary capabilities and technologies include four modular, complementary therapeutic platforms that can be easily used in combination with each other and with existing approaches. This ability to layer technologies without compromising manufacturability enables us to engineer next-generation biotherapeutics with synergistic activity, which we believe will result in superior patient outcomes. Our core platforms include Azymetric, ZymeLink, EFECT and AlbuCORE. Our protein engineering expertise and proprietary structure-guided molecular modeling capabilities enable these therapeutic platforms. Together with our internal antibody discovery and generation technologies, we have established a fully-integrated drug development engine and toolkit that is capable of rapidly delivering a steady pipeline of next-generation product candidates in oncology and other therapeutic areas.

We commenced active operations in 2003 and have since devoted substantially all of our resources to research and development activities including developing our therapeutic platforms, identifying and developing potential product candidates and undertaking preclinical studies and clinical trials. Additionally, we have supported our research and development activities with general and administrative support, as well as by raising capital, conducting business planning and protecting our intellectual property. We have not generated any revenue from product sales to date and do not expect to do so until such time as we obtain regulatory approval and commercialize one or more of our product candidates. We cannot be certain of the timing or success of approval of our product candidates. We have financed our operations primarily through private equity placements, an issuance of convertible debentures, payments received under license and collaboration agreements, government grants and Scientific Research and Experimental Development, or SR&ED, tax credits as well as our IPO in 2017. From inception through December 31, 2017, we received approximately $200.0 million, net of share issue costs, from private equity placements, the issuance of convertible debt, which subsequently converted into equity securities, and our IPO. Payments received from our license and collaboration agreements include upfront fees and milestone payments as well as research support and reimbursement payments through our strategic partnerships and government grants. Although it is difficult to predict our funding requirements, based upon our current operating plan, we anticipate that our existing cash and cash equivalents and short-term investments as of December 31, 2017, combined with the collaboration payments we anticipate receiving, will enable us to fund the clinical and preclinical development of our lead product candidates for at least the next twelve months.

Through December 31, 2017, we had an accumulated deficit of $108.7 million. We reported a net loss of $10.4 million for the year ended December 31, 2017. We expect that over the next several years we will increase our research and development expenditures in connection with the ongoing development of our product candidates and other clinical, preclinical and regulatory activities.

Strategic Partnerships and Collaborations

Our unique combination of proprietary protein engineering capabilities and resulting therapeutic platform technologies was initially recognized by Merck and Lilly, with whom we established strategic partnerships focused on our Azymetric and EFECT therapeutic platforms. We subsequently entered into broader strategic partnerships with Celgene and GSK and a collaboration and cross-licensing agreement with Daiichi Sankyo. Following the completion of the initial agreements with Merck, Lilly and GSK, the relationships were subsequently expanded to include either additional licenses or therapeutic platforms. Most recently, we executed a licensing and collaboration agreement with Janssen to develop and commercialize next generation bispecific antibody therapeutics. These relationships provide our strategic partners with access to components of our proprietary Azymetric and EFECT therapeutic platforms for their development of a defined number of protein therapeutics, for which we will not have ownership. These strategic partnerships have provided us with non-dilutive funding as well as access to proprietary therapeutic assets, which increase our ability to rapidly advance our product candidates while maintaining worldwide commercial rights to our wholly-owned therapeutic pipeline. Our strategic partnerships include the following:

- ***Research and License Agreement with Merck***

  In August 2011, we entered into a research and license agreement with Merck, which was amended and restated in December 2014, to develop and commercialize three bispecific antibodies generated through the use of the Azymetric and EFECT platforms. Under the terms of the agreement, we granted Merck a worldwide, royalty-bearing antibody sequence pair exclusive license to research, develop and commercialize certain licensed products. We are eligible to receive up to $190.75 million, including an upfront payment ($1.25 million received in 2011), research milestone payments totaling $3.5 million ($2.0 million and $1.5 million received in 2012 and 2013, respectively), payments for completion of IND-enabling studies of up to $6.0 million, development milestone payments of up to $66.0 million and commercial milestone payments of up to $114.0 million. In addition, we are eligible to receive tiered royalties in the low to mid-single digits on product sales, with the royalty term being, on a product-by-product and country-by-country basis, either (i) for as long as there is Zymeworks patent coverage on products, or (ii) for five years, beginning from the first commercial sale, whichever period is longer. If there is no Zymeworks patent coverage on products, royalty rates will be reduced.

  Under the agreement, we are sharing certain research and development responsibilities with Merck to generate bispecific antibodies with the Azymetric and EFECT platforms. Merck provides funding for a portion of our internal and external research costs in support of the collaboration. After the conclusion of the research program, Merck will be solely responsible for the further research, development, manufacturing and commercialization of the products.

- ***Licensing and Collaboration Agreement with Lilly***

  In December 2013, we entered into a licensing and collaboration agreement with Lilly to research, develop and commercialize one bispecific antibody, with an option for a second antibody, generated through the use of the Azymetric platform. Under the terms of the agreement, we granted Lilly a worldwide, royalty-bearing antibody target pair-specific exclusive license to research, develop and commercialize certain licensed products. We are eligible to receive up to $103.0 million, including an upfront payment ($1.0 million received in 2013) and per product potential milestone payments, comprised of research milestone payments totaling $1.0 million ($1.0 million received in 2015), IND submission milestone payments of $2.0 million, development milestone payments of $8.0 million and commercial milestone payments of $40 million. In addition, we are eligible to receive tiered royalties in the low to mid-single digits on product sales, with the royalty term being, on a product-by-product and country-by-country basis, either (i) for as long as there is Zymeworks platform patent coverage on products, or (ii) for 10 years, beginning from the first commercial sale, whichever period is longer. If there is no Zymeworks patent coverage on products, royalty rates may be potentially reduced. In 2017, Lilly nominated a bispecific candidate from this agreement for preclinical development.

  Under the agreement, we are sharing certain research and development responsibilities with Lilly to generate bispecific antibodies with the Azymetric platform. Lilly provides funding for a portion of our internal and external research costs in support of the collaboration. After the conclusion of the research program, Lilly will be solely responsible for the further research, development, manufacturing, and commercialization of the products.

- ***Second Licensing and Collaboration Agreement with Lilly***

  In October 2014, we entered into a second licensing and collaboration agreement with Lilly to research, develop and commercialize three bispecific antibodies generated through the use of the Azymetric platform. This agreement did not alter or amend the initial agreement entered in 2013. Under the terms of the agreement, we granted Lilly a worldwide, royalty-bearing antibody target-pair exclusive (for two bispecific antibodies) and an antibody sequence pair-specific (for one bispecific antibody) license to research, develop and commercialize certain licensed products. In 2017, Lilly nominated a bispecific candidate from this agreement for preclinical development and discontinued the development of two other bispecific antibodies due to strategic portfolio realignment in those particular disease areas. We have updated our projections and are currently eligible to receive up to $125.0 million, comprised of research milestone payments of up to $2.0 million ($2.0 million earned in 2016), IND submission milestone payments of up to $8.0 million, development milestone payments of up to $20.0 million and commercial milestone payments of up to $95.0 million. In addition, we are eligible to receive tiered royalties in the low to mid-single digits on product sales, with the royalty term being, on a product-by-product and country-by-country basis, either (i) for as long as there is Zymeworks platform patent coverage on products, or (ii) for 10 years, beginning from the first commercial sale, whichever period is longer. If there is no Zymeworks patent coverage on products, royalty rates may be potentially reduced. In conjunction with this collaboration agreement, Lilly purchased approximately $24.0 million of our common shares.

Under the agreement, we are sharing certain research and development responsibilities with Lilly to generate bispecific antibodies with the Azymetric platform. We are responsible for our internal and external research costs in support of this collaboration. After the conclusion of the research program, Lilly will be solely responsible for the further research, development, manufacturing and commercialization of the products.

- ***Licensing and Collaboration Agreement with Celgene***

  In December 2014, we entered into a collaboration agreement with Celgene to research, develop and commercialize up to eight bispecific antibodies generated through the use of the Azymetric platform. Under the terms of the agreement, we granted Celgene a right to exercise options to worldwide, royalty-bearing, antibody sequence pair-specific exclusive licenses to research, develop and commercialize certain licensed products. We received an upfront payment of $8.0 million, which was accounted for as upfront collaboration consideration received in 2014. Celgene has the right to exercise options on up to eight programs and if Celgene opts in on a program, we are eligible to receive up to $164.0 million per product candidate (up to $1.3 billion for all eight programs), comprised of a commercial license option payment of $7.5 million, development milestone payments of up to $101.5 million and commercial milestone payments of up to $55.0 million. No development or commercial milestone payments or royalties have been received to date.

  In addition, we are eligible to receive tiered royalties in the low to mid-single digits on product sales, with the royalty term being, on a product-by-product and country-by-country basis, either (i) for as long as there is Zymeworks platform patent coverage on products, or (ii) for 10 years, beginning from the first commercial sale, whichever period is longer. Celgene also has the right, prior to the first dosing of a patient in a Phase 3 clinical trial for a product, to buy down the royalty to a flat low-single digit rate with a payment of $10.0 million per percentage point. In addition to this collaboration agreement, the parties also entered into an equity subscription agreement under which Celgene paid $8.6 million for common shares.

  Under the agreement, we are collaborating with Celgene to generate and develop a number of bispecific antibodies during the research program, the term of which expires in April 2018 but can be extended by Celgene by 24 months if Celgene makes an additional payment. After the conclusion of the research program, Celgene will be solely responsible for the further research, development, manufacturing and commercialization of the products.

- ***Licensing and Collaboration Agreement with GSK***

  In December 2015, we entered into a collaboration and license agreement with GSK to research, develop and commercialize up to 10 new Fc-engineered monoclonal and bispecific antibodies generated through the use of the EFECT and Azymetric platforms. Under the terms of the agreement, we granted GSK a worldwide, royalty-bearing antibody target-exclusive license to new intellectual property generated to the EFECT platform under this collaboration and a non-exclusive license to the Azymetric platform to research, develop and commercialize future licensed products. We are eligible to receive up to $1.1 billion, including research, development and commercial milestone payments of up to $110.0 million for each product. In addition, we are eligible to receive tiered royalties in the low-single digits on net sales of products, with the royalty term being, on a product-by-product and country-by-country basis, either (i) for as long as there is Zymeworks patent coverage on products or certain joint patent coverage on products, or (ii) for 10 years beginning from the first commercial sale, whichever period is longer. If there is no Zymeworks patent coverage or certain joint patent coverage on products, royalty rates will be reduced. No development or commercial milestone payments or royalties have been received to date. We retained the right to develop up to four products, free of royalties, using the new intellectual property generated in this collaboration, and after a period of time, to grant licenses to such intellectual property for development of additional products by third parties.

Under the collaboration and license agreement, we are sharing certain research and development responsibilities with GSK to generate new Fc-engineered antibodies. Each party will bear its own costs for the responsibilities assigned to it during the research period. After the conclusion of the research period, each party will be solely responsible for the further research, development, manufacturing and commercialization of its own respective products. The research period will terminate when the "research collaboration plan" (as defined in the collaboration and license agreement) is complete or on December 1, 2018, whichever is earlier. During the term of the agreement and solely based on the outcome of the research collaboration, we have granted GSK exclusive rights to develop and commercialize monospecific antibodies against targets nominated by GSK. If GSK develops bispecific antibodies using its own platform approaches, we have granted GSK exclusive rights to develop and commercialize such antibodies comprising of specific antibody sequence pairs.

- ***Second Licensing and Collaboration Agreement with GSK***

  In April 2016, we entered into a licensing agreement with GSK to research, develop and commercialize up to six bispecific antibodies generated through the use of the Azymetric platform. This may include bispecific antibodies incorporating new engineered Fc regions generated under the 2015 GSK agreement outlined in the preceding section. Under the terms of this agreement, we granted GSK a worldwide, royalty-bearing antibody sequence pair-specific exclusive license to research, develop and commercialize licensed products. We are eligible to receive up to $908.0 million, including an upfront payment as a technology access fee ($6.0 million received in 2016), research milestone payments of up to $30.0 million, development milestone payments of up to $152.0 million and commercial milestone payments of up to $720.0 million. In addition, we are eligible to receive tiered royalties in the low to mid-single digits on product sales, with the royalty term being, on a product-by-product and country-by-country basis, either (i) for as long as there is Zymeworks patent coverage on products, or (ii) for 10 years beginning from the first commercial sale, whichever period is longer. If there is no Zymeworks patent coverage on products, royalty rates may be potentially reduced. No research, development or commercial milestone payments or royalties have been received to date. GSK has the right, prior to the first dosing of a patient in a Phase 3 clinical trial for a product, to buy down the royalty payable on such product by only 1% with a payment of $10.0 million.

  Under the agreement, GSK will bear all responsibility and all costs associated with research, development and commercialization of products generated using the Azymetric platform.

- ***Licensing and Collaboration Agreement with Daiichi Sankyo***

  In September 2016, we entered into a collaboration and cross-license agreement with Daiichi Sankyo to research, develop and commercialize one bispecific antibody generated through the use of the Azymetric and EFECT platforms. Under the terms of the agreement, we granted Daiichi Sankyo a worldwide, royalty-bearing antibody sequence pair-specific exclusive license to research, develop and commercialize certain licensed products. We are eligible to receive up to $149.9 million, including an upfront payment as a technology access fee of $2.0 million (received in 2016), research ($1.0 million received in 2017) and development milestone payments and a commercial option payment totaling up to $67.9 million and commercial milestone payments of up to $80.0 million. In addition, we are eligible to receive tiered royalties ranging from the low single digits up to 10% on product sales, with the royalty term being, on a product-by-product and country-by-country basis, either (i) for as long as there is Zymeworks platform patent coverage on products, or (ii) for 10 years beginning from the first commercial sale, whichever period is longer. No research, development or commercial milestone payments or royalties have been received to date. We also gained non-exclusive rights to develop and commercialize up to three products using Daiichi Sankyo's proprietary immune-oncology antibodies, with royalties in the low single digits to be paid to Daiichi Sankyo on sales of such products.

Under the agreement, we are sharing certain research and development responsibilities with Daiichi Sankyo to generate bispecific antibodies with the Azymetric platform. Daiichi Sankyo is responsible for our internal and external research costs in support of this collaboration during the research program term. After the research program term, Daiichi Sankyo will be solely responsible for the further research, development, manufacturing and commercialization of the products. Under the non-exclusive immuno-oncology antibody license to Zymeworks, we are solely responsible for all research, development and commercialization of the resulting products.

- ***Licensing and Collaboration Agreement with Janssen***

  In November 2017, we entered into a collaboration agreement with Janssen to research, develop and commercialize up to six bispecific antibodies generated through the use of the Azymetric and EFECT platforms. Under the terms of the agreement, we granted Janssen a worldwide, royalty-bearing, antibody sequence pair-specific exclusive license to research, develop and commercialize certain products. We are eligible to receive up to $1.45 billion, including an upfront payment of $50.0 million (received in 2017), development milestone payments of up to $282.0 million and commercial milestone payments of up to $1.12 billion. In addition, we are eligible to receive tiered royalties in the mid-single digits on product sales, with the royalty term being, on a product-by-product and country-by-country basis, either (i) for as long as there is Zymeworks platform patent coverage on products, or (ii) for 10 years, beginning from the first commercial sale, whichever period is longer. If there is no Zymeworks patent coverage on products, royalty rates may be potentially reduced. No development or commercial milestone payments or royalties have been received to date. Janssen has the right, prior to the first dosing of a patient in a Phase 3 clinical trial for a product, to buy down the royalty relating to such product by only 1% with a payment of $10.0 million. Janssen also has the option to develop two additional bispecific antibodies under this agreement subject to a future option payment.

  Under the agreement, Janssen will be solely responsible for the research, development, manufacturing and commercialization of the products.

For additional information on our strategic partnerships, see Item 1, “Business—Strategic Partnerships and Collaborations” of this Annual Report on Form 10-K.

Financial Operations Overview

Revenue

Our revenue consists of collaboration revenue, including amounts recognized relating to upfront non-refundable payments for licenses or options to obtain future licenses, research and development funding and milestone payments earned under collaboration and license agreements with strategic partners. We expect these and other strategic partnerships to be our primary source of revenue for the foreseeable future.

Research and Development Expense

Research and development expenses consist of expenses incurred in performing research and development activities. These expenses include conducting research experiments, preclinical studies, and other indirect expenses in support of advancing our product candidates and therapeutic platforms. The following items are included in research and development expenses:

- employee-related expenses such as salaries and benefits;
- employee-related overhead expenses such as facilities and other allocated items;
- share-based compensation expense related to employees and consultants engaged in research and development activities;
- depreciation of laboratory equipment, computers and leasehold improvements;

- fees paid to consultants, subcontractors, CROs, and other third-party vendors for work performed under our clinical trials and preclinical studies, including but not limited to laboratory work and analysis, database management, statistical analysis, and other items; and
- amounts paid to vendors and suppliers for laboratory supplies.

The following table shows a summary of our research and development expenses for the years ended December 31, 2017, 2016 and 2015.

	Year Ended December 31,		
	2017	2016	2015
	(dollars in millions)		
Research and development expense			
ZW25	$ 15.0	$ 6.1	$ 5.2
ZW49	3.4	—	—
Therapeutic platforms	6.8	7.6	5.9
Other research activities	16.5	23.1	13.6
Total research and development expense	$ 41.7	$ 36.8	$ 24.7
Less: Government credits	1.1	1.3	0.3
	$ 40.6	$ 35.5	$ 24.4

It is difficult to determine with certainty the duration and completion costs of our current or future clinical trials and preclinical programs of our product candidates, or if, when or to what extent we will generate revenue from the commercialization and sale of any of our product candidates that obtain regulatory approval. We may never succeed in achieving regulatory approval for any of our product candidates. The duration, costs and timing of clinical trials and development of our product candidates will depend on a variety of factors, including the uncertainties of clinical trials and preclinical studies, uncertainties in clinical trial enrollment rates and significant and changing government regulation. In addition, the probability of success for each product candidate will depend on numerous factors, including competition, manufacturing capability and commercial viability. We will determine which programs to pursue and how much to fund each program in response to the scientific and clinical success of each product candidate, as well as an assessment of each product candidate's commercial potential.

For the year ended December 31, 2017, our research and development expenditures increased by $4.9 million, compared to the prior year. This was primarily due to an increase in clinical costs for ZW25 and development costs for ZW49, which was partially offset by a decrease in other ADC development and antibody discovery activities compared to the same period in 2016.

General and Administrative Expense

General and administrative expenses consist of salaries and related benefit costs for employees in our executive, finance, intellectual property, business development, human resources and other support functions, legal and professional fees, and travel and general office expenses. We expect to incur additional expenses related to supporting our ongoing research and development activities, operating as a public company and other administrative expenses.

Other Income (Expense)

Other income (expense) primarily consists of interest and accretion expenses, interest income, change in fair value of warrant liabilities, foreign exchange gain (loss) and loss on debt extinguishment.

Critical Accounting Policies and Significant Judgments and Estimates

Our management's discussion and analysis of financial conditions and results of operations is based on our consolidated financial statements, which have been prepared in accordance with U.S. GAAP. The preparation of these consolidated financial statements requires us to make estimates, judgments and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the balance sheets and the reported amount of the revenue and expenses recorded during the reporting period. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable. We review and evaluate these estimates on an ongoing basis. These assumptions and estimates form the basis for making judgments about the carrying values of assets and liabilities and amounts that have been recorded as revenue and expenses. Actual results and experiences may differ from these estimates. The results of any material revisions would be reflected in the consolidated financial statements prospectively from the date of the change in estimate.

While a summary of significant accounting policies has been included in note 2 of our consolidated financial statements, we believe that the following accounting policies are the most critical to assist you in fully understanding and evaluating our financial results and any effect of the estimates and judgments we used in preparing our consolidated financial statements. There have been no material changes to our critical accounting policies during the year ended December 31, 2017.

Functional Currency

Prior to January 1, 2016, our functional currency was the Canadian dollar. We reassessed our functional currency and determined that, as at January 1, 2016, our functional currency changed from the Canadian dollar to the U.S. dollar based on management's analysis of the changes in the primary economic environment in which we operate. The change in functional currency is accounted for prospectively from January 1, 2016 and prior year financial statements have not been restated for the change in functional currency.

For periods prior to January 1, 2016, the effects of exchange rate fluctuations on translating foreign currency monetary assets and liabilities into Canadian dollars were included in the statement of operations and comprehensive loss as foreign exchange gain/loss. Revenue and expense transactions were translated into the U.S. dollar reporting currency at the balance sheet date at average exchange rates during the period, and assets and liabilities were translated at end of period exchange rates, except for equity transactions, which were translated at historical exchange rates. Translation gains and losses from the application of the U.S. dollar as the reporting currency while the Canadian dollar was the functional currency are included as part of the cumulative foreign currency translation adjustment, which is reported as a component of shareholders' equity under accumulated other comprehensive loss.

For periods commencing January 1, 2016, monetary assets and liabilities denominated in foreign currencies are translated into U.S. dollars using exchange rates in effect at the balance sheet date. Opening balances related to non-monetary assets and liabilities are based on prior period translated amounts, and non-monetary assets and non-monetary liabilities incurred after January 1, 2016 are translated at the approximate exchange rate prevailing at the date of the transaction. Revenue and expense transactions are translated at the approximate exchange rate in effect at the time of the transaction. Foreign exchange gains and losses are included in the statement of operations and comprehensive loss as foreign exchange gain (loss).

The functional currency of Zymeworks Biopharmaceuticals Inc. is also the U.S. dollar.

Business Combination and Goodwill

Acquisitions of businesses are accounted for using the acquisition method. The consideration for a business combination is measured, at the date of the exchange, as the aggregate of the fair value of assets given, liabilities incurred or assumed and equity instruments issued by us to the former owners of the acquiree in exchange for control of the acquiree. Acquisition related costs incurred for the business combination are expensed. The acquiree's identifiable assets, liabilities and contingent liabilities are recognized at their fair value at the acquisition date.

Goodwill arising on acquisition is recognized as an asset and initially measured at cost, being the excess of the consideration issued for the acquisition over our interest in the fair value of the net identifiable assets, liabilities and contingent liabilities acquired. If our interest in the fair value of the acquiree's net identifiable assets, liabilities and contingent liabilities exceeds the cost of the acquisition, the excess is recognized in earnings or loss immediately. Goodwill is evaluated for impairment on an annual basis or more frequently if an indicator of impairment is present. Goodwill is subject to a two-step impairment test. The first step compares the fair value of the reporting unit to its carrying amount, which includes the goodwill. When the fair value of a reporting unit exceeds its carrying amount, goodwill of the reporting unit is considered not to be impaired, and the second step of the impairment test is unnecessary. If the carrying amount exceeds the implied fair value of the reporting unit, the second step measures the amount of the impairment loss. If the carrying amount exceeds the fair value of the goodwill, an impairment loss is recognized equal to that excess.

Acquired In-Process Research and Development

The in-process research and development intangible asset, or IPR&D, is classified as indefinite-lived and is not amortized. IPR&D becomes definite-lived upon the completion or abandonment of the associated research and development efforts. Intangible assets with finite useful lives are amortized on a straight-line basis over their estimated useful lives, which are the respective patent terms. Amortization begins when intangible assets with finite lives are put into use. Indefinite-lived intangible assets will be evaluated for impairment on an annual basis or more frequently if an indicator of impairment is present. For definite-lived intangibles, if there is a major event indicating that the carrying value of intangible assets may be impaired, then management will perform an impairment test. When an impairment test is performed, if the carrying value exceeds the recoverable value, based on discounted future cash flows, then such assets are written down to their fair values. All research and development costs incurred subsequent to the acquisition are immediately expensed as incurred.

Revenue Recognition

We recognize revenue when all of the following criteria are met: persuasive evidence of an arrangement exists, the fee is fixed or determinable, delivery or performance has been substantially completed and collectability is reasonably assured.

Our revenues are primarily derived from research and development agreements with strategic partners for the research and development of therapeutics products. The terms of the agreements may include non-refundable signing and licensing fees, research funding, milestone payments and royalties on any product sales derived from strategic arrangements.

We analyze agreements with more than one element, or deliverable, based on the guidance in Accounting Standards Codification, or ASC, 605-25, Revenue Recognition—Multiple Element Arrangements ("ASC 605-25"). Each required deliverable is evaluated to determine whether it qualifies as a separate unit of accounting. A delivered item or items are considered separate units of accounting if they have value to the collaborator or licensee on a stand-alone basis and, if the agreement includes a general right of return, the delivery or performance of undelivered items is considered probable and within our control.

In assessing whether an item or items have stand-alone value, we consider if the deliverable or deliverables have been sold separately on a stand-alone basis. Additional factors considered include research capabilities of the strategic partner or licensee, the availability of the associated expertise in the general marketplace, whether the delivered item or items can be used for their intended purpose without receipt of the remaining item(s), whether the value of the delivered item(s) is dependent on the undelivered item(s) and whether there are other vendors that can provide the undelivered item(s).

Arrangement consideration that is fixed or determinable is allocated at the inception of the agreement to all identified units of accounting based on the relative estimated selling prices in accordance with the selling price hierarchy. The selling price of each deliverable is determined using vendor-specific objective evidence of selling prices, if it exists; otherwise, third-party evidence of selling prices. If neither vendor-specific objective evidence nor third-party evidence exists, we use our best estimate of the selling price for each deliverable. We may be required to exercise considerable judgment in estimating the selling prices of identified units of accounting under our agreements. The arrangement consideration otherwise allocable to delivered units is limited to the amount that is not contingent on the delivery of additional items or fulfillment of other performance conditions.

When we determine that the license and the related therapeutic platform have stand-alone value to the licensee, these items are considered a unit of accounting and arrangement consideration allocated to this unit of accounting is recognized upon delivery of the therapeutic platform. When research services related to the transfer of the technical information are required, then the license, the applicable research services, and therapeutic platform are considered a unit of accounting and we must determine the period over which the performance obligations will be performed, which generally relates to the period the research services will be performed, and over which revenue is recognized. If we cannot reasonably estimate the timing and the level of effort to complete our performance obligations under the arrangement, then revenue under the arrangement is recognized on a straight-line basis over the period we expect to complete our performance obligations.

We recognize other research support payments as revenue upon the performance of activities, which are eligible for research support payments from our strategic partners, in accordance with the respective licensing and collaboration agreements.

We analyze milestones based on the guidance in ASC 605-28, Revenue Recognition—Milestone Method, or ASC 605-28. We evaluate milestone payments on an individual basis and recognize revenue from non-refundable milestone payments when the earnings process is complete and the payment is reasonably assured. Non-refundable milestone payments related to arrangements under which we have continuing performance obligations are recognized as revenue upon achievement of the associated milestone, provided that the milestone event is substantive and its achievability was not reasonably assured at the inception of the agreement.

A milestone event is considered substantive if (i) the milestone is commensurate with either (a) our performance to achieve the milestone or (b) the enhancement of the value of the delivered item(s) as a result of a specific outcome resulting from our performance to achieve the milestone; (ii) it relates solely to past performance; and (iii) it is reasonable relative to all of the deliverables and payment terms (including other potential milestone consideration) within the arrangement. If any portion of the milestone payment does not relate to performance, does not relate solely to past performance or is refundable or adjustable based on future performance, the milestone is not considered to be substantive.

Certain milestones in the agreements do not meet the ASC 605-28 definition of a milestone because achievement of the milestone solely depends on the performance of the licensee. Any revenue from these contingent payments is subject to an allocation of arrangement consideration and is recognized over the remaining period of performance obligations, if any, relating to the arrangement. If there are no remaining performance obligations under the arrangement at the time the contingent payment is triggered, the contingent payment is recognized as revenue in full upon the triggering event occurring.

Options for future deliverables are considered substantive if, at the inception of the arrangement, we are at risk as to whether the licensee will choose to exercise the option. Factors that we consider in evaluating whether an option is substantive include the overall objective of the arrangement, the benefit the licensee might obtain from the arrangement without exercising the option, the cost to exercise the option and the likelihood that the option will be exercised. For arrangements under which an option is considered substantive, we do not consider the item underlying the option to be a deliverable at the inception of the arrangement and the associated option fees are not included in the initial consideration, assuming the option is not priced at a significant and incremental discount. Conversely, for arrangements under which an option is not considered substantive or if an option is priced at a significant and incremental discount, we would consider the item underlying the option to be a deliverable at the inception of the arrangement and a corresponding amount would be included in the initial consideration.

Royalty revenue will be recognized upon the sale of the related products provided we have no remaining performance obligations under the arrangement.

We periodically enter into contract amendments and subsequent contracts with the same entity. Contracts that amend the terms of existing agreements are treated in substance as one arrangement. Subsequent contracts that contain unrelated deliverables are accounted for as separate arrangements. The factors we consider when determining if a deliverable in one agreement is unrelated to a deliverable in another agreement include assessing if the different deliverables in each agreement are closely interrelated or interdependent in terms of design, technology and function, if the fee in one agreement is impacted by the performance in another agreement, and if a deliverable in one agreement is essential to the functionality of a deliverable in another agreement.

Research and Development Expense and Related Accrued Expenses

Research and development expenses include costs that we incur for our own and for our strategic partners' research and development activities. Research and development expenditures are expensed as incurred. These costs primarily consist of employee-related expenses, including salaries and benefits, expenses incurred under agreements with contract research organizations on our behalf, costs associated with investigative sites and consultants that conduct our clinical trials, the cost of acquiring and manufacturing clinical trial materials and other allocated expenses, share-based compensation expense, and costs associated with nonclinical activities and regulatory approvals.

Liability Classified Awards

Awards accounted for under ASC 718 "Compensation—Stock Options", or ASC 718, with an exercise price which is not denominated in: (a) the currency of a market in which a substantial portion of our equity securities trades, (b) the currency in which the individual's pay is denominated, or (c) our functional currency, are required to be classified as liabilities. For awards accounted for under ASC 815 "Derivatives and Hedging", or ASC 815, any warrant or option that provides for an exercise price which is not denominated in our functional currency is required to be classified as a liability.

Liability classified awards are subsequently measured at fair value at each balance sheet date until exercised or cancelled, with changes in fair value recognized as compensation cost or additional paid-in capital (ASC 718 awards) or other income and expenses (ASC 815 awards) for the period. Under ASC 718, when an award is reclassified from equity to liability, if at the reclassification date the original vesting conditions are expected to be satisfied, then the minimum amount of compensation cost to be recognized is based on the grant date fair value of the original award. Fair value changes below this minimum amount are recorded in additional paid-in capital. Fair value is calculated using the Black-Scholes option pricing model. The Black-Scholes option pricing model uses various inputs to measure fair value, including estimated fair value of our underlying common shares at the grant date, expected term, estimated volatility, risk-free interest rate and expected dividend yields of our common shares.

Share-Based Compensation

We recognize share-based compensation expense on share awards granted to employees and members of the board of directors based on their estimated grant date fair value using the Black-Scholes option pricing model. This Black-Scholes option pricing model uses various inputs to measure fair value, including estimated fair value of our underlying common shares at the grant date, expected term, estimated volatility, risk-free interest rate and expected dividend yields of our common shares. We recognize share-based compensation expense, net of estimated forfeitures, in the consolidated statements of loss and comprehensive loss on a straight-line basis over the requisite service period. We apply an estimated forfeiture rate derived from historical employee termination behavior. If the actual number of forfeitures differs from those estimated by management, adjustments to compensation expense may be required in future periods.

Share-based compensation expense related to stock options granted to individual service providers who are not employees is measured on the date of performance using the Black-Scholes option-pricing model and the awards are periodically remeasured as the underlying options vest. The fair value of the share-based awards is amortized over the vesting period.

We have an employee stock purchase plan which is considered compensatory. Accordingly, an expense is recognized for the difference between the fair market value and the discounted price.

Recent Accounting Pronouncements

A summary of recent accounting pronouncements is presented in Note 3 of our Annual Consolidated Financial Statements for the year ended December 31, 2017 within this Annual Report on Form 10-K.

Results of Operations for the Years Ended December 31, 2017 and 2016

Research and Development Revenue

The following represents a comparison of our research and development revenue for the years ended December 31, 2017 and 2016:

	Year Ended December 31,			
	2017	2016	Increase/(Decrease)	
	(dollars in millions)			
Revenue from research and developmental collaborations	$ 51.8	$ 11.0	$ 40.8	371%

The increase in collaboration revenue of $40.8 million for the year ended December 31, 2017 compared to 2016 is primarily due to the recognition of a $50.0 million upfront fee received from Janssen and a $1.0 million milestone payment from Daiichi Sankyo in 2017. This increase was partially offset by $6.0 million and $2.0 million in upfront technology access fees received from Daiichi Sankyo and GSK, respectively, and a $2.0 million milestone payment from Lilly in 2016.

Research and Development Expense

The following represents a comparison of our research and development expense for the years ended December 31, 2017 and 2016:

	Year Ended December 31,			
	2017	2016	Increase/(Decrease)	
	(dollars in millions)			
Research and development expense				
ZW25	$ 15.0	$ 6.1	$ 8.9	146%
ZW49	3.4	—	3.4	100%
Therapeutic platforms	6.8	7.6	(0.8)	(11)%
Other research activities	16.5	23.1	(6.6)	(29)%
Total research and development expense	$ 41.7	$ 36.8	$ 4.9	13%

During the year ended December 31, 2017, our research and development expenditures increased by $4.9 million compared to 2016. This was primarily due to an increase in clinical costs for ZW25 and development costs for ZW49 in 2017, which was partially offset by a decrease in other ADC development and antibody discovery activities compared to the same period in 2016. Research and development expenses for the year ended December 31, 2017 included $4.3 million related to activities conducted in Quebec, Canada.

General and Administrative Expense

The following represents a comparison of our general and administrative expense for the years ended December 31, 2017 and 2016:

	Year Ended December 31,			
	2017	2016	Increase/(Decrease)	
	(dollars in millions)			
General and administrative expense	$ 18.6	$ 12.6	$ 6.0	48%

General and administrative expense increased for the year ended December 31, 2017 by $6.0 million compared to 2016, primarily due to an increase in compensation costs, professional fees, recruitment costs and depreciation expenses as well as new and expanded software subscription expenses. The compensation cost increase was the result of new hires and higher share-based compensation expenses due to the non-cash impact of the accounting treatment that requires the reclassification of certain awards from equity to liability for accounting purposes under U.S. GAAP. The increase in professional fees over the same period in 2016 was primarily associated with IPO-related expenses as well as services with respect to intellectual property.

Other Income (Expense)

Net other expense for the year ended December 31, 2017 decreased by approximately $0.1 million compared to 2016, primarily due to a $3.3 million increase in gain from valuation of warrant liabilities, a $0.9 million decrease in interest and accretion expenses and a $0.4 million increase in interest income. These were partially offset by a $3.1 million loss on debt extinguishment, a $0.8 million decrease in foreign exchange gain, a $0.5 million increase in fair value of contingent consideration and a decrease of $0.1 million in gain from the previously held equity investment in Kairos Therapeutics Inc. (“Kairos”) in 2017.

Results of Operations for the Years Ended December 31, 2016 and 2015

Research and Development Revenue

The following represents a comparison of our research and development revenue for the years ended December 31, 2016 and 2015:

	Year Ended December 31,			
	2016	2015	Increase/(Decrease)	
	(dollars in millions)			
Revenue from research and developmental collaborations	$ 11.0	$ 9.7	$ 1.3	13%

The increase in collaboration revenue of $1.3 million for the year ended December 31, 2016 compared to 2015 is primarily due to $2.0 million and $6.0 million of upfront technology access fees received from Daiichi Sankyo and GSK, respectively, in 2016 compared to the $7.5 million upfront payment from Celgene, which was recognized as revenue in 2015. Additionally, in 2016, we recorded milestone revenue of $2.0 million from Lilly compared to $1.0 million in 2015.

Research and Development Expense

The following represents a comparison of our research and development expense for the years ended December 31, 2016 and 2015:

	Year Ended December 31,			
	2016	2015	Increase/(Decrease)	
	(dollars in millions)			
Research and development expense				
ZW25	$ 6.1	$ 5.2	$ 0.9	17%
ZW49	—	—	—	—%
Therapeutic platforms	7.6	5.9	1.7	29%
Other research activities	23.1	13.6	9.5	70%
Total research and development expense	$ 36.8	$ 24.7	$ 12.1	49%

During the year ended December 31, 2016, our research and development expenditures increased by $12.1 million compared to 2015. This was primarily due to the start of clinical activities related to ZW25, increased clinical manufacturing activities and IND-enabling studies associated with ZW25, as well as increased activities associated with our therapeutic platforms and early-stage research and discovery programs recorded in other research activities.

General and Administrative Expense

The following represents a comparison of our general and administrative expense for the years ended December 31, 2016 and 2015:

	Year Ended December 31,			
	2016	2015	Increase/(Decrease)	
	(dollars in millions)			
General and administrative expense	$ 12.6	$ 5.2	$ 7.4	142%

General and administrative expense increased for the year ended December 31, 2016 by $7.4 million compared to 2015, primarily due to an increase in compensation costs and professional fees. The compensation cost increase was the result of new hires and higher share-based compensation expense due to reclassification of certain awards from equity to liability. The increase in professional fees over the same period in 2015 was associated with consulting services and lab and office expansions as well as legal and human resources advisory services.

Other Income (Expenses)

Other income for the year ended December 31, 2016 decreased by approximately $1.8 million compared to 2015, primarily due to a $1.5 million increase in interest and accretion expenses and $0.8 million of losses due to change in fair value of warrant liabilities, which were partially offset by a $0.4 million increase in foreign exchange gain and a net gain of $0.2 million from the previously held equity investment in Kairos.

Liquidity and Capital Resources

Sources of Liquidity

Until the completion of our IPO in Q2 2017, we had financed our operations primarily through private equity placements of our common shares, a private placement of preferred shares and a credit facility. On June 2, 2016, we entered into a credit agreement (the "Credit Agreement") with Perceptive Credit Opportunities Fund L.P. and PCOF Phoenix II Fund L.P. (collectively, "Perceptive"). Pursuant to the Credit Agreement, we were able to borrow up to an aggregate of $15.0 million, consisting of Tranche A and Tranche B term loans for $7.5 million each, with the Tranche A term amount of $7.5 million being made available to us immediately upon the close of the transaction. Following the completion of our IPO, we exercised our option of repayment under the terms of the Credit Agreement and paid $7.8 million, which consisted of the outstanding Tranche A principal balance ($7.5 million) and an early repayment premium ($0.3 million), as well as legal fees ($0.01 million).

We closed our IPO on May 3, 2017, pursuant to which we sold 4,894,467 common shares (including the sale of 394,467 common shares to the underwriters upon their partial exercise of their over-allotment option to purchase additional shares on May 31, 2017). We received net proceeds of approximately $54.2 million, after underwriting discounts, commissions and offering expenses.

In addition, our operations have been funded through upfront fees, milestone payments, research support payments from our strategic partners, government grants and SR&ED credits. As of December 31, 2017, we had $87.8 million in cash and cash equivalents and short-term investments.

In addition to our existing cash and cash equivalents, we expect to continue to receive additional reimbursements from our existing and future research collaborations for research and development services rendered and additional milestone payments. However, our ability to receive future milestone payments is dependent upon the ability of Zymeworks and its collaborators to successfully complete specified research and development activities and therefore is uncertain at this time.

Cash Flows

The following table represents a summary of our cash flows for the years ended December 31, 2017, 2016 and 2015:

	Year Ended December 31,		
	2017	2016	2015
	(dollars in millions)		
Net cash provided by (used in):			
Operating activities	$ 0.2	$ (35.2)	$ (22.2)
Investing activities	(30.9)	(25.5)	(9.2)
Financing activities	50.0	64.8	1.5
Effect of exchange rate changes on cash and cash equivalents	0.2	0.8	(5.4)
Net increase in cash and cash equivalents	$ 19.5	$ 4.9	$ (35.3)

Operating Activities

During the year ended December 31, 2017, cash from operating activities was $0.2 million, which consisted of a net loss of $10.4 million as a result of $51.8 million in revenue offsetting our research and development, general and administrative and other expenses. The net loss was adjusted by non-cash charges of $8.8 million and a net increase of $1.8 million in our net operating assets. The non-cash charges primarily consisted of $3.4 million in stock-based compensation, $2.7 million in depreciation and amortization, $3.1 million in loss on debt extinguishment, $1.5 million in impairment on acquired IPR&D and $0.5 million in increase in fair value of contingent consideration liability, which were partially offset by a $2.4 million gain from valuation of warrant liabilities. The change in our net operating assets and liabilities was primarily attributable to a decrease in our SR&ED and accounts receivable of $2.2 million, which was partially offset by a decrease in our accounts payable and accrued liabilities of $0.4 million.

During the year ended December 31, 2016, cash used in operating activities was $35.2 million, which consisted of a net loss of $33.8 million, adjusted by non-cash charges of $0.9 million and a net decrease of $2.4 million in our net operating assets. The non-cash charges primarily consisted of $4.3 million in stock-based compensation, $1.0 million in depreciation and amortization, $0.8 million in impairment on acquired IPR&D, $0.8 million in loss from valuation of warrant liabilities, and $0.6 million in accretion expenses, which were partially offset by a $5.5 million gain from deferred income tax recovery. The change in our net operating assets and liabilities was primarily attributable to an increase in our SR&ED and accounts receivable of $1.4 million and an increase in our prepaid assets of $3.1 million, which was partially offset by an increase in our accounts payable and accrued liabilities of $2.1 million.

During the year ended December 31, 2015, cash used in operating activities was $22.2 million, which consisted of a net loss of $19.2 million, adjusted by non-cash charges of $1.9 million and a net decrease of $4.9 million in our net operating assets. The non-cash charges primarily consisted of $1.4 million in stock-based compensation and $0.5 million in depreciation and amortization. The change in our net operating assets and liabilities was primarily attributable to a decrease in our deferred revenue of $7.5 million, which was partially offset by a decrease in our SR&ED and accounts receivable of $0.3 million and an increase in our accounts payable and accrued liabilities of $2.4 million.

Investing Activities

Net cash used in investing activities in 2017 is primarily related to a $27.8 million increase in short-term investments, $2.0 million in purchases of laboratory equipment and computer hardware as well as increases in leaseholds and $1.1 million in research licenses and software. Net cash used in investing activities in 2016 is primarily related to $20.0 million in short-term investments and $4.5 million in purchases of laboratory equipment, computer hardware, and increases in leaseholds. Investing activities in the year ended December 31, 2015 is primarily related to short-term investments and our equity investment in Kairos.

Financing Activities

Net cash provided by financing activities for the year ended December 31, 2017 included $55.8 million of net proceeds from the IPO and $2.0 million from exercises of warrants and stock options offset by $7.8 million in debt repayment, whereas financing activities for the same period in 2016 included $58.9 million from a private placement and $7.0 million of net proceeds from debt financing. Financing activities in year ended December 31, 2015 primarily included net proceeds of $1.8 million from private equity placements.

Funding Requirements

We have not generated any revenue from product sales to date and do not expect to do so until such time as we obtain regulatory approval of and commercialize one or more of our product candidates. As we are currently in clinical and preclinical stages of development, it will be some time before we expect to achieve this and it is uncertain that we ever will. We expect that we will continue to increase our operating expenses in connection with ongoing clinical trials and preclinical activities and the development of product candidates in our pipeline. We expect to continue our strategic partnerships and will look for additional collaborations as well as expanded collaboration opportunities. Although it is difficult to predict our funding requirements, based upon our current operating plan, we anticipate that our existing cash and cash equivalents and short-term investments as of December 31, 2017 will enable us to fund our operating expenses and capital expenditure requirements into 2019. We have based these estimates on assumptions and plans which may change and which could impact the magnitude and/or timing of operating expenses, capital expenditures and our cash runway. We may also be eligible to receive certain research, development and commercial milestone payments in the future. However, because successful development of our product candidates and the achievement of milestones by our strategic partners is uncertain, we are unable to estimate the actual funds we will require to complete the research, development and commercialization of product candidates. See Item 1A, “Risk Factors – Risks Related to Our Dependency on Third Parties – We may not realize the anticipated benefits of our strategic partnerships”.

Contractual Obligations and Contingent Liabilities

Lease Commitments

We lease office premises in Vancouver, British Columbia and Seattle, Washington that expire in August 2021 and February 2022, respectively. We also lease laboratory space in Vancouver, British Columbia that commenced in September 2016 and will expire in August 2021. The leases contain rent escalation clauses. We also lease office equipment under capital lease agreements. Future minimum lease payments under the non-cancellable operating leases and capital leases at December 31, 2017 are as follows:

	Payments due by period					
	Less Than 1 Year	1 to 2 Years	2 to 3 Years	3 to 4 Years	5 Years	Total
	(dollars in thousands)					
Capital lease obligations	$ 17	$ 20	$ 26	$ 10	$ —	$ 73
Operating lease obligations	1,967	1,982	1,993	1,510	87	7,539
Total contractual obligations	$ 1,984	$ 2,002	$ 2,019	$ 1,520	$ 87	$ 7,612

Other Commitments

We have entered into research collaboration agreements with strategic partners, in the ordinary course of operations, that may include contractual milestone payments related to the achievement of pre-specified research, development, regulatory and commercialization events and indemnification provisions, which are common in such agreements. Pursuant to the agreements, we are obligated to make research and development and regulatory milestone payments upon the occurrence of certain events and royalty payments based on net sales. The maximum amount of potential future indemnification is unlimited; however, we currently hold commercial and product liability insurance. This insurance limits our liability and may enable us to recover a portion of any future amounts paid. Historically, we have not made any indemnification payments under such agreements and we believe that the fair value of these indemnification obligations is minimal. Accordingly, we have not recognized any liabilities relating to these obligations for any period presented.

In August 2016, we entered into a license agreement with Innovative Targeting Solutions Inc., or ITS, to use ITS' protein engineering technology for the development and commercialization of antibody and protein therapeutics. Pursuant to the agreement, we agreed to pay an aggregate of $12.0 million in annual licensing fees to ITS over a five-year period. The licensing fee for the first year was $1.0 million, which has been recorded in intangible assets and is being amortized over a twelve-month period. We may also be required to make payments to ITS upon the achievement of certain development and commercial milestones, as well as royalty payments on net sales.

In connection with the Kairos acquisition, we may be required to make future payments to CVI upon the direct achievement of certain development milestones for products incorporating certain Kairos intellectual property, as well as royalty payments on the net sales of such products. For out-licensed products and technologies incorporating certain Kairos intellectual property, we may be required to pay CVI a mid-single digit percentage of the future revenue as a result of a revenue sharing agreement. As of December 31, 2017, the development milestone payments had an estimated fair value of approximately $470 thousand, which has been recorded as contingent consideration within Other long term laibilities (2016: $nil). The contingent consideration was calculated using a probability weighted assessment of the likelihood the milestones would be met, a probability adjusted discount rate that reflects the stage of the development and time to complete the development. Contingent consideration is a financial liability and measured at its fair value at each reporting period, with any changes in fair value from the previous reporting period recorded in the statement of operations and comprehensive loss.

Contingencies

From time to time, we may be subject to various legal proceedings and claims related to matters arising in the ordinary course of business. We do not believe we are currently subject to any material matters where there is at least a reasonable possibility that a material loss may be incurred.

Off-Balance Sheet Arrangements

We have no material undisclosed off-balance sheet arrangements that have, or are reasonably likely to have, a current or future effect on our results of operations or financial condition.

Segment Reporting

We view our operations and manage our business in one segment, which is the discovery, development and commercialization of next-generation biotherapeutics.

Outstanding Share Data

As of February 28, 2018, our authorized share capital consisted of an unlimited number of common shares, each without par value, of which 25,461,460 were issued and outstanding, and an unlimited number of preferred shares, each without par value, none of which were issued and outstanding. As of February 28, 2018, we had 1,274,719 common shares issuable pursuant to 1,274,719 exercisable outstanding stock options, 1,618,108 common shares issuable pursuant to 1,618,108 outstanding options that were not exercisable at that date, and we had approximately 68 holders of record of our common shares.

JOBS Act

In April 2012, the JOBS Act was enacted. Section 107 of the JOBS Act provides that an “emerging growth company” can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act of 1933, as amended, or the Securities Act, for complying with new or revised accounting standards. Thus, an emerging growth company can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this extended transition period and, as a result, we will adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for other public companies.

We continue the process of evaluating the benefits of relying on other exemptions and reduced reporting requirements under the JOBS Act. Subject to certain conditions, as an emerging growth company, we may rely on certain of these exemptions. As of the date of this Annual Report, we have elected to rely on exemptions for (i) providing an auditor’s attestation report on our system of internal controls over financial reporting pursuant to Section 404(b) of the Sarbanes-Oxley Act and (ii) complying with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor’s report providing additional information about the audit and the financial statements, known as the auditor discussion and analysis. We will remain an emerging growth company until the earlier of (i) the last day of the fiscal year in which we have total annual gross revenue of $1.07 billion or more; (ii) the last day of the fiscal year following the fifth anniversary of the date of the completion of our IPO; (iii) the date on which we have issued more than $1.0 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the SEC.

Item 7A. Quantitative and Qualitative Disclosure About Market Risk

We are exposed to market risks in the ordinary course of our business.The market risk inherent in our financial instruments and in our financial position represents the potential loss arising from adverse changes in interest rates and exchange rates and exchange rates.

Interest Rate Risk

We had cash, cash equivalents and short-term investments of $87.8 million and $40.3 million at December 31, 2017 and December 31, 2016, respectively, consisting primarily of funds in cash and guaranteed investment certificates. The primary objective of our investment activities is to preserve principal and liquidity while maximizing income without significantly increasing risk. We do not enter into investments for trading or speculative purposes. Due to the short-term nature of our investment portfolio, we do not believe an immediate 10% increase in interest rates would have a material effect on the fair market value of our portfolio, and accordingly we do not expect our operating results or cash flows to be materially affected by a sudden change in market interest rates.

Foreign Currency Exchange Risk

We undertake certain transactions in Canadian dollars and as such are subject to risk due to fluctuations in exchange rates. Canadian dollar denominated payables are paid at the converted rate as due. We do not use derivative instruments to hedge exposure to foreign exchange rate risk due to the low volume of transactions denominated in foreign currencies. At December 31, 2017, our net monetary assets denominated in Canadian dollars was $5.0 million (C$6.3 million).

Our operating results and financial position are reported in U.S. dollars in our financial statements. The fluctuation of the Canadian dollar in relation to the U.S. dollar will consequently have an impact upon our loss and may also affect the value of our assets and the amount of shareholders equity. A hypothetical 10% increase (decrease) in the value of the Canadian dollar would result in a foreign exchange gain (loss) of $0.5 million being recorded in the Consolidated Statements of Loss and Comprehensive Loss on the translation of our Canadian dollar net monetary assets into our U.S. dollar functional currency.

Inflation Risk

We do not believe that inflation and changing prices had a significant impact on our results of operations for any periods presented herein.

Item 8. Financial Statements and Supplementary Data

Zymeworks Inc.

Index to Consolidated Financial Statements

Year ended December 31, 2017

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors of Zymeworks Inc.

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Zymeworks Inc. and subsidiaries (the Company) as of December 31, 2017 and 2016, the related consolidated statements of loss and comprehensive loss, changes in redeemable convertible preferred shares and shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2017, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2017, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB and in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ KPMG LLP

Chartered Professional Accountants

We have served as the Company's auditor since 2015

Vancouver, Canada

March 14, 2018

ZYMEWORKS INC.
Consolidated Balance Sheets
(Expressed in thousands of U.S. dollars except share data)

	December 31, 2017	December 31, 2016
Assets		
Current assets:		
Cash and cash equivalents	$ 35,946	$ 16,437
Short-term investments (note 4)	51,851	23,824
SR&ED receivables (note 11)	2,092	1,660
Accounts receivable	238	2,647
Prepaid expenses and other current assets	2,208	1,916
Total current assets	92,335	46,484
Deferred financing fees	—	1,560
Acquired in-process research and development (note 5)	18,396	19,932
Goodwill (note 5)	12,016	12,016
Long-term prepaid assets	1,215	1,483
Property and equipment, net (note 6)	7,178	6,721
Intangible assets, net (note 7)	748	699
Deferred tax assets (note 14)	67	5,100
Total assets	$ 131,955	$ 93,995
Liabilities, redeemable convertible preferred shares, and shareholders' equity		
Current liabilities:		
Accounts payable and accrued liabilities (note 8)	$ 9,053	$ 9,477
Warrant liabilities (note 9.b)	1,348	4,342
Fair value of liability classified options	3,945	2,458
Other current liabilities (note 8)	315	279
Total current liabilities	14,661	16,556
Long-term debt (note 9.a)	—	4,417
Deferred tax liability (note 14)	—	5,019
Other long-term liabilities (note 8)	866	141
Total liabilities	15,527	26,133
Redeemable convertible preferred shares, no par value; nil and 6,413,265 authorized shares at December 31, 2017 and 2016; nil and 5,260,404 shares issued and outstanding at December 31, 2017 and 2016, respectively (note 10.b)	—	58,860
Shareholders' equity:		
Common shares, no par value; unlimited authorized shares at December 31, 2017 and 2016; 25,444,006 and 13,126,248 shares issued and outstanding at December 31, 2017 and 2016, respectively (note 10.a)	222,991	106,595
Additional paid-in capital	8,812	6,856
Accumulated other comprehensive loss	(6,659)	(6,659)
Accumulated deficit	(108,716)	(97,790)
Total shareholders' equity	116,428	9,002
Total liabilities, redeemable convertible preferred shares and shareholders' equity	$ 131,955	$ 93,995
Research collaboration and licensing agreements (note 12)		
Commitments and contingencies (note 15)		

The accompanying notes are an integral part of these financial statements

ZYMEWORKS INC.
Consolidated Statements of Loss and Comprehensive Loss
(Expressed in thousands of U.S. dollars except share and per share data)

	Year Ended December 31,		
	2017	**2016**	**2015**
Revenue:			
Research and developmental collaborations (note 12)	$ 51,762	$ 11,009	$ 9,660
Operating expenses:			
Research and development	41,749	36,816	24,654
Government grants and credits (note 11)	(1,075)	(1,265)	(251)
	40,674	35,551	24,403
General and administrative	18,550	12,554	5,217
Impairment on acquired IPR&D (note 5)	1,536	768	—
Total operating expenses	60,760	48,873	29,620
Loss from operations	(8,998)	(37,864)	(19,960)
Other income (expense):			
Interest and other expense	(892)	(950)	(18)
Change in fair value of warrant liabilities	2,450	(808)	—
Accretion expense	(248)	(576)	—
Interest and other income	743	308	324
Foreign exchange gain (loss)	97	927	518
Loss on debt extinguishment (note 9.a)	(3,114)	—	—
Equity loss on investment	—	(98)	—
Gain on fair value of equity investment	—	177	—
Total other (expense) income	(964)	(1,020)	824
Loss before income taxes	(9,962)	(38,884)	(19,136)
Income tax expense (note 14)	(429)	(430)	(18)
Deferred income tax (expense) recovery (note 14)	(15)	5,505	(16)
Net loss	$ (10,406)	$ (33,809)	$ (19,170)
Other comprehensive loss:			
Foreign currency translation adjustment	—	—	(5,587)
Total comprehensive loss	$ (10,406)	$ (33,809)	$ (24,757)
Net loss per common share (note 2):			
Basic	$ (0.51)	$ (2.65)	$ (1.70)
Diluted	$ (0.64)	$ (2.65)	$ (1.70)
Weighted-average common shares outstanding (note 2):			
Basic	21,249,414	12,736,567	11,266,451
Diluted	21,321,209	12,736,567	11,266,451

The accompanying notes are an integral part of these financial statements

ZYMEWORKS INC.
Consolidated Statements of Changes in Redeemable Convertible Preferred Shares and Shareholders' Equity
(Expressed in thousands of U.S. dollars except share data)

	Redeemable Convertible Class A Preferred shares		Common shares				Accumulated other comprehensive income (loss)	Additional paid-in capital	Total shareholders' equity
	Shares	Amount	Shares	Amount	Warrants	Accumulated deficit			
Balance at December 31, 2014	—	—	11,111,115	$ 81,725	$ 333	$ (44,752)	$ (1,072)	$ 3,529	$ 39,763
Issuance of common shares	—	—	153,982	1,797	—	—	—	—	1,797
Share issue costs	—	—	—	(45)	—	—	—	—	(45)
Issuance of common shares on exercise of options	—	—	33,954	128	—	—	—	—	128
Share-based compensation	—	—	—	—	—	—	—	1,353	1,353
Net loss	—	—	—	—	—	(19,170)	—	—	(19,170)
Foreign currency translation	—	—	—	—	—	—	(5,587)	—	(5,587)
Balance at December 31, 2015	—	—	11,299,051	$ 83,605	$ 333	$ (63,922)	$ (6,659)	$ 4,882	$ 18,239
Issuance of redeemable convertible preferred shares	5,260,404	61,518	—	—	—	—	—	—	—
Share issue costs	—	(2,658)	—	—	—	—	—	—	—
Issuance of common shares for Kairos Acquisition	—	—	1,822,657	22,973	—	—	—	—	22,973
Issuance of common shares on exercise of options	—	—	4,540	17	—	—	—	—	17
Fair value adjustments upon reclassification of options to liabilities	—	—	—	—	—	(124)	—	(823)	(947)
Share-based compensation	—	—	—	—	—	—	—	2,797	2,797
Fair value adjustment upon reclassification of warrants to liabilities	—	—	—	—	(333)	65	—	—	(268)
Net loss	—	—	—	—	—	(33,809)	—	—	(33,809)
Balance at December 31, 2016	5,260,404	$ 58,860	13,126,248	$ 106,595	$ —	$ (97,790)	$ (6,659)	$ 6,856	$ 9,002
Issuance of common shares on exercise of options	—	—	207,777	1,777	—	—	—	(512)	1,265
Issuance of common shares on exercise of warrants	—	—	117,320	1,563	—	—	—	—	1,563
Fair value adjustments upon reclassification of options to liabilities	—	—	—	—	—	—	—	(2,879)	(2,879)
Share-based compensation	—	—	—	—	—	—	—	4,827	4,827
Beneficial conversion feature recognized on the conversion of redeemable convertible class A preferred shares (note 10.c)	—	—	—	—	—	(520)	—	520	—
Conversion of redeemable convertible class A preferred shares to common shares in connection with initial public offering (note 10.c)	(5,260,404)	(58,860)	7,098,194	58,860	—	—	—	—	58,860
Issuance of common shares in connection with initial public offering, net of offering costs of $9,392	—	—	4,894,467	54,196	—	—	—	—	54,196
Net loss	—	—				(10,406)			(10,406)
Balance at December 31, 2017	—	$ —	25,444,006	$ 222,991	$ —	$ (108,716)	$ (6,659)	$ 8,812	$ 116,428

The accompanying notes are an integral part of these financial statements

ZYMEWORKS INC.
Consolidated Statements of Cash Flows
(Expressed in thousands of U.S. dollars)

	Year Ended December 31,		
	2017	**2016**	**2015**
Cash flows from operating activities:			
Loss for the year	$ (10,406)	$ (33,809)	$ (19,170)
Items not involving cash:			
Depreciation of property and equipment	1,681	541	280
Amortization of intangible assets	1,058	484	214
Equity loss on investment	—	98	—
Gain on fair value of equity investment	—	(177)	—
Accretion on long-term debt	248	576	—
Loss on debt extinguishment	3,114	—	—
Share-based compensation	3,429	4,291	1,389
Deferred income tax expense (recovery)	15	(5,505)	16
Impairment on acquired IPR&D	1,536	768	—
Change in fair value of warrant liabilities	(2,450)	808	—
Change in fair value of contingent consideration	470	—	—
Unrealized foreign exchange gain	(254)	(954)	—
Changes in non-cash operating working capital:			
Accounts receivable	2,409	(592)	(1,363)
SR&ED receivables	(175)	(780)	1,660
Prepaid expenses and other current assets	(27)	(3,141)	(116)
Accounts payable and accrued liabilities	(358)	1,934	2,417
Deferred revenue	—	—	(7,515)
Income taxes payable	(71)	212	18
Net cash used in operating activities	$ 219	$ (35,246)	$ (22,170)
Cash flows from financing activities:			
Proceeds from initial public offering, net of issuance costs	55,791	—	—
Issuance of common shares from private placement, net of issuance costs	—	—	1,752
Issuance of preferred shares from private placement, net of issuance costs	—	58,860	—
Issuance of common shares on exercise of options	965	17	128
Issuance of common shares on exercise of warrants	1,018	—	—
Debt financing	—	6,953	—
Repayment of debt	(7,814)	—	—
Deferred financing fees	—	(1,046)	(360)
Capital lease payments	(9)	(7)	(4)
Net cash provided by financing activities	$ 49,951	$ 64,777	$ 1,516
Cash flows from investing activities:			
Short-term investments	(27,767)	(20,067)	(4,310)
Acquisition of property and equipment	(2,015)	(4,425)	(626)
Acquisition of intangible assets	(1,106)	(1,039)	(227)
Acquisition of equity investments	—	—	(4,038)
Cash acquired from Kairos, net of cash consideration	—	78	—
Net cash used in investing activities	$ (30,888)	$ (25,453)	$ (9,201)
Effect of exchange rate changes on cash and cash equivalents	227	840	(5,461)
Net change in cash and cash equivalents	19,509	4,918	(35,316)
Cash and cash equivalents, beginning of year	16,437	11,519	46,835
Cash and cash equivalents, end of year	$ 35,946	$ 16,437	$ 11,519
Supplemental disclosure of non-cash investing and finance items:			
Deferred financing fees in accounts payable and accrued liabilities	—	910	—
Acquisition of property and equipment in accounts payable and accrued liabilities	123	2,055	—
Class A Preferred Shares Warrant issued in connection with debt	—	3,266	—
Common Shares issued in connection with the Kairos acquisition	—	22,973	—

The accompanying notes are an integral part of these financial statements

ZYMEWORKS INC.
Notes to the Consolidated Financial Statements

1. Nature of Operations

Zymeworks Inc. (the "Company" or "Zymeworks") was incorporated on September 8, 2003 under the laws of the Canada Business Corporations Act. On October 22, 2003, the Company was registered as an extra-provincial company under the Company Act (British Columbia). On May 2, 2017, the Company continued under the Business Corporations Act (British Columbia). Zymeworks is a clinical-stage biopharmaceutical company dedicated to the discovery, development and commercialization of next-generation biotherapeutics.

Since its inception, the Company has devoted substantially all of its resources to research and development activities, including developing its therapeutic platforms, identifying and developing potential product candidates and undertaking preclinical studies and clinical trials. The Company supports these activities through general and administrative support, as well as by raising capital, conducting business planning and protecting its intellectual property.

Share Consolidation

On April 13, 2017, the Company effected a 1 for 2.3866 share consolidation (reverse share split) of the Company's issued and outstanding common shares and redeemable convertible preferred shares. Accordingly, (i) every 2.3866 common shares were combined into one common share, (ii) every 2.3866 redeemable convertible preferred shares were combined into one redeemable convertible preferred share, (iii) the number of common shares into which each outstanding option and warrant to purchase common shares and the number of preferred shares into which each outstanding warrant to purchase preferred shares is exercisable were proportionately decreased on a 1 for 2.3866 basis, and (iv) the exercise price for each such outstanding option and warrant to purchase common shares or preferred shares were proportionately increased on a 1 for 2.3866 basis. All of the share numbers, share prices, and exercise prices in these financial statements have been adjusted, on a retroactive basis, to reflect this 1 for 2.3866 reverse share split.

Initial Public Offering

On April 27, 2017, the Company's registration statement on Form F-1 (File No. 333-217100) relating to its initial public offering ("IPO") of its common stock was declared effective by the Securities and Exchange Commission and a final base PREP prospectus was filed with the securities commissions or similar securities regulatory authorities in each of the provinces and territories of Canada. A supplemented PREP prospectus containing pricing information and other important information relating to the common shares was also filed with the securities commissions or similar securities regulatory authorities in each of the provinces and territories of Canada. The Company's common shares began trading on the New York Stock Exchange ("NYSE") and Toronto Stock Exchange ("TSX") on April 28, 2017. The public offering price of the shares sold in the IPO was $13.00 per share. The IPO closed on May 3, 2017, pursuant to which the Company sold 4,894,467 shares of common stock including the sale of 394,467 shares of common stock to the underwriters upon their partial exercise of their over-allotment option to purchase additional shares on May 31, 2017. The Company received net proceeds of approximately $54.2 million, after underwriting discounts, commissions and offering expenses. Immediately prior to the consummation of the IPO, all outstanding shares of redeemable convertible preferred stock were converted into 7,098,194 common shares (note 10.c) and the Redeemable Convertible Class A Preferred Shares Warrants were converted into common share warrants to purchase up to 398,076 common shares of the Company at an exercise price of $8.67 per share (note 9).

2. Summary of Significant Accounting Policies

Basis of Presentation and Principles of Consolidation

The consolidated financial statements of the Company have been prepared in accordance with generally accepted accounting principles in the United States of America ("U.S. GAAP"). The consolidated financial statements include the accounts of Zymeworks Inc. and its wholly owned subsidiaries, Zymeworks Biopharmaceuticals Inc., which was incorporated in the State of Washington on December 5, 2014, and Zymeworks Biochemistry Inc. (formerly Kairos Therapeutics Inc. ("Kairos")), which was acquired on March 18, 2016. Kairos' financial statements have been consolidated within the Company's consolidated financial statements from the date of acquisition until December 31, 2016 as the Company completed an amalgamation with Zymeworks Biochemistry Inc. on January 1, 2017. All inter-company accounts and transactions have been eliminated in consolidation.

All amounts expressed in the consolidated financial statements of the Company and the accompanying notes thereto are expressed in thousands of U.S. dollars, except for per share data and where otherwise indicated. References to "$" are to U.S. dollars and references to "C$" are to Canadian dollars.

Use of Estimates

The preparation of the financial statements in accordance with U.S. GAAP requires the Company to make estimates and judgments in certain circumstances that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosure of contingent assets and liabilities. In preparing these consolidated financial statements, management has made its best estimates and judgments of certain amounts included in the financial statements, giving due consideration to materiality. On an ongoing basis, the Company evaluates its estimates, including those related to revenue recognition, Scientific Research and Experimental Development ("SR&ED") Program and Industrial Research Assistance Program ("IRAP"), share-based compensation, warrants, accrual of expenses, preclinical study accruals, valuation allowance for deferred taxes, other contingencies and valuation of assets acquired in a business combination. Management bases its estimates on historical experience or on various other assumptions that it believes to be reasonable under the circumstances. Actual results could differ from these estimates.

Foreign Currency Translation and Functional Currency Conversion

Prior to January 1, 2016, the Company's functional currency was the Canadian dollar.

The Company reassessed its functional currency and determined as at January 1, 2016, its functional currency changed from the Canadian dollar to the U.S. dollar based on management's analysis of the changes in the primary economic environment in which the Company operates. The change in functional currency is accounted for prospectively from January 1, 2016 and prior year financial statements have not been restated for the change in functional currency.

For periods prior to January 1, 2016, the effects of exchange rate fluctuations on translating foreign currency monetary assets and liabilities into Canadian dollars were included in the statement of loss and comprehensive loss as foreign exchange gain/loss. Revenue and expense transactions were translated into the U.S. dollar reporting currency at the average exchange rate during the period, and assets and liabilities were translated at end of period exchange rates, except for equity transactions, which were translated at historical exchange rates. Translation gains and losses from the application of the U.S. dollar as the reporting currency while the Canadian dollar was the functional currency are included as part of the cumulative foreign currency translation adjustment, which is reported as a component of shareholders' equity under accumulated other comprehensive loss.

For periods commencing January 1, 2016, monetary assets and liabilities denominated in foreign currencies are translated into U.S. dollars using exchange rates in effect at the balance sheet date. Opening balances related to non-monetary assets and liabilities are based on prior period translated amounts, and non-monetary assets and non-monetary liabilities incurred after January 1, 2016 are translated at the approximate exchange rate prevailing at the date of the transaction. Revenue and expense transactions are translated at the approximate exchange rate in effect at the time of the transaction. Foreign exchange gains and losses are included in the statement of loss and comprehensive loss as foreign exchange gain (loss).

The functional currency of Zymeworks Biopharmaceuticals Inc. and Zymeworks Biochemistry Inc. is also the U.S. dollar.

Liability Classified Awards

Awards accounted for under Accounting Standards Codification ("ASC") 718 "Compensation—Stock Options" ("ASC 718"), with an exercise price which is not denominated in: (a) the currency of a market in which a substantial portion of the Company's equity securities trades, (b) the currency in which the individual's pay is denominated, or (c) the Company's functional currency, are required to be classified as liabilities. For awards accounted for under ASC 815 "Derivatives and Hedging" ("ASC 815"), any warrant or option that provides for an exercise price which is not denominated in the Company's functional currency are required to be classified as liabilities.

Upon the change of the functional currency from Canadian dollars to U.S. dollars effective January 1, 2016, certain options previously classified as equity awards with total fair value of $251 and common share warrants previously classified as equity awards with a total fair value of $268 have been reclassified as liability awards. Under ASC 815, upon the change in classification, the change in fair value of the options and common share warrants while they were classified as equity is recorded as an adjustment to the accumulated deficit. Additionally, upon the change of the compensation currency for certain directors from Canadian dollars to U.S. dollars effective November 9, 2016, options held by such directors which were previously classified as equity awards with total fair value of $1,341 have been classified as liability awards.

Upon the change of the compensation currency for certain executives from Canadian dollars to U.S. dollars effective January 1, 2017, options held by such executives which were previously classified as equity awards with a total fair value of $7,371 on January 1, 2017 have been reclassified as liability awards of which $2,879 was reclassified from additional paid-in capital and the remaining $4,492 was recorded to the statement of loss on January 1, 2017 as under ASC 718, upon the change in classification, the change in fair value of the options while they were classified as equity is recorded as an adjustment to the statement of loss.

Liability classified awards are subsequently measured at fair value at each balance sheet date until exercised or cancelled, with changes in fair value recognized as compensation cost or additional paid-in capital (ASC 718 awards) or other income and expenses (ASC 815 awards) for the period. Under ASC 718, when an award is reclassified from equity to liability, if at the reclassification date the original vesting conditions are expected to be satisfied, then the minimum amount of compensation cost to be recognized is based on the grant date fair value of the original award. Fair value changes below this minimum amount are recorded in additional paid-in capital. Fair value is calculated using the Black-Scholes option pricing model. The Black-Scholes option pricing model uses various inputs to measure fair value, including fair value of the Company's underlying common shares at the grant date, expected term, estimated volatility, risk-free interest rate and expected dividend yields of the Company's common shares.

Cash and Cash Equivalents

The Company considers all highly liquid investments purchased with original maturities of 90 days or less at the date of acquisition to be cash equivalents. Cash and cash equivalents consist primarily of money market funds and are recorded at cost, which approximates fair value.

Short-Term Investments

The Company's short-term investments consist of guaranteed investment certificates with original maturities exceeding three months and less than one year. The carrying value of these investments are recorded at cost plus accrued interest, which approximates their fair value.

Accounts Receivable

Accounts receivable are reported in the consolidated balance sheets at outstanding amounts, net of any provisions for uncollectible amounts. At all periods presented, the Company has no allowance for doubtful accounts.

The Company evaluates the collectability of accounts receivable on a regular basis based upon various factors including the financial condition and payment history of customers, an overall review of collections experience on other accounts and economic factors or events expected to affect future collections experience.

Deferred Financing Costs

Deferred financing fees as of December 31, 2016 consisted of incremental legal and accounting fees directly attributable to the IPO. These fees were offset against the IPO proceeds upon the consummation of the offering.

As of December 31, 2016, the Company also had deferred financing costs which represented the unamortized costs incurred on issuance of the Company's credit facility. Amortization of deferred financing costs on the credit facility was provided on the effective interest rate method over the term of the facility based on amounts available under the facility. Deferred financing costs related to the debt were presented in the consolidated balance sheet as a direct reduction of the carrying amount of the long-term debt as of December 31, 2016. These costs were subsequently expensed and included in the debt extinguishment loss at the time of debt repayment in 2017 (note 9.a)

Segment Information

The Company operates and manages its business in one segment, which is the discovery, development and commercialization of next-generation biotherapeutics. Operating segments are defined as components of an enterprise about which separate discrete information is available for the chief operating decision maker, or decision making group, in deciding how to allocate resources and assessing performance.

Property and Equipment

Property and equipment are recorded at cost net of accumulated depreciation. Upon retirement or sale, the cost of assets disposed of and the related accumulated depreciation are removed from the accounts and any resulting gain or loss is credited or charged to operations. Repairs and maintenance costs are expensed as incurred.

The Company records depreciation using the straight-line method over the estimated useful lives of the capital assets as follows:

Asset Class	Rate
Computer hardware	3 years
Office equipment	3 years
Furniture and fixtures	5 years
Laboratory equipment	7 years
Leasehold improvements	Shorter of the initial lease term or useful life

Property and equipment, acquired or disposed of during the year, are depreciated proportionately for the period they are in use.

Patents and Intellectual Property Costs

The costs of acquiring patents and of prosecuting and maintaining intellectual property rights are expensed as incurred to general and administrative due to the uncertainty surrounding the drug development process and the uncertainty of future benefits. Patents and intellectual property acquired from third parties are capitalized and amortized over the remaining life of the patent, if for approved products or if there are alternative future uses. No patent or intellectual property costs have been capitalized to date.

Impairment of Long-Lived Assets

The Company assesses the recoverability of its long-lived assets whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of the long-lived asset is measured by a comparison of the carrying amount of the asset to future undiscounted net cash flows expected to be generated by the asset or assets. If carrying value exceeds the sum of undiscounted cash flows, the Company then determines the fair value of the underlying asset. Any impairment to be recognized is measured by the amount by which the carrying amount of the asset group exceeds the estimated fair value of the asset group. Assets classified as held for sale are reported at the lower of the carrying amount or fair value, less costs to sell. As of December 31, 2017 and 2016, the Company determined that there were no impaired assets and no assets held-for-sale.

Government Grants and Credits

Government grants are recognized where there is reasonable assurance that the grant will be received and all attached conditions will be complied with. Reimbursements of eligible research and development expenditures pursuant to government assistance programs are recorded as a reduction of research and development costs when the related costs have been incurred and there is reasonable assurance regarding collection of the claim.

Grant claims not settled by the balance sheet date are recorded as receivables, provided their receipt is reasonably assured. The determination of the amount of the claim, and hence the receivable amount, requires management to make calculations based on its interpretation of eligible expenditures in accordance with the terms of the programs. The reimbursement claims submitted by the Company are subject to review by the relevant government agencies. Although the Company has used its best judgment and understanding of the related program agreements in determining the receivable amount, it is possible that the amounts could increase or decrease by a material amount in the near-term dependent on the review and audit by the government agency.

The Company participates in SR&ED Program, a federal tax incentive program that encourages Canadian businesses to conduct research and development in Canada. The benefits of investment tax credits for scientific research and development expenditures are recognized in the year the qualifying expenditure is made provided there is reasonable assurance of recoverability. This investment tax credit reduces the carrying cost of research and development expenditures.

Research and Development Costs

Research and development expenses include costs that the Company incurs for its own and for the Company's strategic partners' research and development activities. Research and development expenditures are expensed as incurred. These costs primarily consist of employee related expenses, including salaries and benefits, expenses incurred under agreements with contract research organizations on the Company's behalf, investigative sites and consultants that conduct the Company's clinical trials, the cost of acquiring and manufacturing clinical trial materials and other allocated expenses, share-based compensation expense, and costs associated with nonclinical activities and regulatory approvals.

Revenue Recognition

The Company recognizes revenue when all of the following criteria are met: persuasive evidence of an arrangement exists, the fee is fixed or determinable, delivery or performance has substantially completed and collectability is reasonably assured.

The Company's revenues are primarily derived from research and development agreements with strategic partners for the research and development of therapeutics products. The terms of the agreements may include non-refundable signing and licensing fees, research funding, milestone payments and royalties on any product sales derived from strategic arrangements.

The Company analyzes agreements with more than one element, or deliverable, based on the guidance in ASC 605-25, Revenue Recognition—Multiple Element Arrangements ("ASC 605-25"). Each required deliverable is evaluated to determine whether it qualifies as a separate unit of accounting. A delivered item or items are considered a separate unit of accounting if they have value to the collaborator or licensee on a stand-alone basis and, if the agreement includes a general right of return, the delivery or performance of undelivered items is considered probable and within the control of the Company.

In assessing whether an item or items have stand-alone value, the Company considers if the deliverable or deliverables have been sold separately on a stand-alone basis. Additional factors considered include research capabilities of the strategic partner or licensee, the availability of the associated expertise in the general market place, whether the delivered item or items can be used for their intended purpose without receipt of the remaining item(s), whether the value of the delivered item(s) is dependent on the undelivered item(s) and whether there are other vendors that can provide the undelivered item(s).

Arrangement consideration that is fixed or determinable is allocated at the inception of the agreement to all identified units of accounting based on the relative estimated selling prices in accordance with the selling price hierarchy. The selling price of each deliverable is determined using vendor specific objective evidence of selling prices, if it exists; otherwise, third-party evidence of selling prices. If neither vendor specific objective evidence nor third-party evidence exists, the Company uses its best estimate of the selling price for each deliverable. Management may be required to exercise considerable judgment in estimating the selling prices of identified units of accounting under its agreements. The arrangement consideration otherwise allocable to delivered units is limited to the amount that is not contingent on the delivery of additional items or fulfillment of other performance conditions.

When the Company determines that a license and the related therapeutic platform have stand-alone value to the licensee, these items are considered a unit of accounting and arrangement consideration allocated to this unit of accounting is recognized upon delivery of the therapeutic platform. When research services related to the transfer of the technical information are required, then the license, the applicable research services, and therapeutic platform are considered a unit of accounting and the Company must determine the period over which the performance obligations will be performed, which generally relates to the period the research services will be performed, and over which revenue is recognized. If the Company cannot reasonably estimate the timing and the level of effort to complete its performance obligations under the arrangement, then revenue under the arrangement is recognized on a straight-line basis over the period the Company is expected to complete its performance obligations.

The Company recognizes other research support payments as revenue upon the performance of activities which are eligible for research support payments from its strategic partners, in accordance with the respective licensing and collaboration agreements.

The Company analyzes milestones based on the guidance in ASC 605-28, Revenue Recognition—Milestone Method ("ASC 605-28"). The Company evaluates milestone payments on an individual basis and recognizes revenue from non-refundable milestone payments when the earnings process is complete and the payment is reasonably assured. Non-refundable milestone payments related to arrangements under which the Company has continuing performance obligations are recognized as revenue upon achievement of the associated milestone, provided that the milestone event is substantive and its achievability was not reasonably assured at the inception of the agreement.

A milestone event is considered substantive if (i) the milestone is commensurate with either (a) the Company's performance to achieve the milestone or (b) the enhancement of the value of the delivered item(s) as a result of a specific outcome resulting from the Company's performance to achieve the milestone; (ii) it relates solely to past performance and (iii) it is reasonable relative to all of the deliverables and payment terms (including other potential milestone consideration) within the arrangement. If any portion of the milestone payment does not relate to the Company's performance, does not relate solely to past performance or is refundable or adjustable based on future performance, the milestone is not considered to be substantive.

Certain milestones in the agreements do not meet the ASC 605-28 definition of a milestone because achievement of the milestone solely depends on the performance of the licensee. Any revenue from these contingent payments is subject to an allocation of arrangement consideration and is recognized over the remaining period of performance obligations, if any, relating to the arrangement. If there are no remaining performance obligations under the arrangement at the time the contingent payment is triggered, the contingent payment is recognized as revenue in full upon the triggering event occurring.

Options for future deliverables are considered substantive if, at the inception of the arrangement, the Company is at risk as to whether the licensee will choose to exercise the option. Factors that the Company considers in evaluating whether an option is substantive include the overall objective of the arrangement, the benefit the licensee might obtain from the arrangement without exercising the option, the cost to exercise the option and the likelihood that the option will be exercised. For arrangements under which an option is considered substantive, the Company does not consider the item underlying the option to be a deliverable at the inception of the arrangement and the associated option fees are not included in the initial consideration, assuming the option is not priced at a significant and incremental discount. Conversely, for arrangements under which an option is not considered substantive or if an option is priced at a significant and incremental discount, the Company would consider the item underlying the option to be a deliverable at the inception of the arrangement and a corresponding amount would be included in the initial consideration.

Royalty revenue will be recognized upon the sale of the related products provided the Company has no remaining performance obligations under the arrangement.

The Company periodically enters into contract amendments and subsequent contracts with the same entity. Contracts that amend the terms of existing agreements are treated in substance as one arrangement. Subsequent contracts that contain unrelated deliverables are accounted for as separate arrangements. The factors considered by the Company when determining if a deliverable in one agreement is unrelated to a deliverable in another agreement include assessing if the different deliverables in each agreement are closely interrelated or interdependent in terms of design, technology and function, if the fee in one agreement is impacted by the performance in another agreement, and is a deliverable in one agreement essential to the functionality of a deliverable in another agreement.

Income Taxes

The Company accounts for income taxes using an asset and liability approach that requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been recognized in the Company's financial statements or tax returns. In estimating future tax consequences, the Company generally considers all expected future events other than enactments of and changes in the tax law or rates. The measurement of deferred tax assets is reduced, if necessary, by the extent of the valuation allowance. The Company uses a two-step approach to determine whether an uncertain tax position should be recorded, consisting of a "more-likely-than-not" recognition criteria, and a measurement attribute that measures a given tax position as the largest amount of tax benefits that are more than 50% likely of being realized upon ultimate settlement.

Interest and tax penalties are expensed as incurred and nil has been incurred to date.

Stock-Based Compensation

The Company recognizes stock-based compensation expense on share awards granted to employees and members of the board of directors based on their estimated grant date fair value using the Black-Scholes option pricing model. The Black-Scholes option pricing model uses various inputs to measure fair value, including estimated fair value of the Company's underlying common share at the grant date, expected term, estimated volatility, risk-free interest rate and expected dividend yields of the Company's common shares. The Company recognizes stock-based compensation expense, net of estimated forfeitures, in the consolidated statements of loss and comprehensive loss on a straight-line basis over the requisite service period. The Company applies an estimated forfeiture rate derived from historical employee termination behavior. If the actual number of forfeitures differs from those estimated by management, adjustments to compensation expense may be required in future periods.

Stock options granted to individual service providers who are not employees are measured on the date of performance using the Black-Scholes option-pricing model and the awards are periodically remeasured as the underlying options vest. The fair value of the stock-based awards is amortized over the vesting period.

The Company has an employee stock purchase plan which is considered compensatory. Accordingly, an expense is recognized for the difference between the fair market value and the discounted price.

Business Combination and Goodwill

Acquisitions of businesses are accounted for using the acquisition method. The consideration for a business combination is measured, at the date of the exchange, as the aggregate of the fair value of assets given, liabilities incurred or assumed and equity instruments issued by the Company to the former owners of the acquiree in exchange for control of the acquiree. Acquisition related costs incurred for the business combination are expensed as incurred. The acquiree's net identifiable assets are generally recognized at their fair value at the acquisition date.

Goodwill arising on acquisition is recognized as an asset and initially measured at cost, being the excess of the consideration transferred for the acquisition over the Company's interest in the fair value of the net identifiable assets acquired. If the Company's interest in the fair value of the acquiree's net identifiable assets exceeds the cost of the acquisition, the excess is recognized in earnings or loss immediately. Goodwill is evaluated for impairment on an annual basis or more frequently if an indicator of impairment is present. Goodwill is subject to a two-step impairment test. The first step compares the fair value of the reporting unit to its carrying amount, which includes the goodwill. When the fair value of a reporting unit exceeds its carrying amount, goodwill of the reporting unit is considered not to be impaired, and the second step of the impairment test is unnecessary. If the carrying amount exceeds the fair value of the reporting unit, the second step is performed to measure the amount of the impairment loss. If the carrying amount exceeds the implied fair value of the goodwill, an impairment loss is recognized equal to that excess.

Acquired In-Process Research and Development

The in-process research and development intangible asset ("IPR&D") arose from the acquisition of Kairos on March 18, 2016 (note 5). IPR&D is classified as indefinite-lived and is not amortized. IPR&D becomes definite-lived upon the completion or abandonment of the associated research and development efforts. Intangible assets with finite useful lives are amortized on a straight-line basis over their estimated useful lives, which are the respective patent terms. Amortization begins when intangible assets with finite lives are put into use. Indefinite-lived intangible assets will be evaluated for impairment on an annual basis or more frequently if an indicator of impairment is present. For definite-lived intangibles, if there is a major event indicating that the carrying value of intangible assets may be impaired, then management will perform an impairment test. When an impairment test is performed, if the carrying value exceeds the recoverable value, based on discounted future cash flows, then such assets are written down to their fair values. All research and development costs incurred subsequent to the acquisition of IPR&D are immediately expensed as incurred.

Financial Instruments

Fair Value of Financial Instruments

The Company measures certain financial instruments and other items at fair value.

To determine the fair value, the Company uses the fair value hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs are inputs market participants would use to value an asset or liability and are developed based on market data obtained from independent sources. Unobservable inputs are inputs based on assumptions about the factors market participants would use to value an asset or liability. The three levels of inputs that may be used to measure fair value are as follows:

- Level 1 inputs are quoted market prices for identical instruments available in active markets.
- Level 2 inputs are inputs other than Level 1 prices, such as prices for similar asset or liability that are observable either directly or indirectly. If the asset or liability has a contractual term, the input must be observable for substantially the full term. An example includes quoted market prices for similar assets or liabilities in active markets.
- Level 3 inputs are unobservable inputs for the asset or liability and will reflect management's assumptions about market assumptions that would be used to price the asset or liability.

Assets and liabilities are classified based on the lowest level of input that is significant to the fair value measurements. Changes in the observability of valuation inputs may result in a reclassification of levels for certain securities within the fair value hierarchy.

The Company's financial instruments consist of cash and cash equivalents, short-term investments, amounts receivable, accounts payable and accrued liabilities, warrants, capital lease obligations, liability classified options and other long-term liabilities.

The carrying values of cash and cash equivalents, short-term investments, amounts receivable and accounts payable and accrued liabilities approximate their fair values due to the immediate or short-term maturity of these financial instruments. Based on the borrowing rates available to the Company for debt with similar terms and consideration of default and credit risk using Level 2 inputs, the carrying value of the Company's capital lease obligations as of December 31, 2017 approximates its fair value. As quoted prices for the warrants and liability classified stock options are not readily available, the Company has used a Black-Scholes pricing model to estimate fair value. These are level 3 inputs as defined above.

The following tables present information about the Company's liabilities that are measured at fair value on a recurring basis, and indicates the fair value hierarchy of the valuation techniques used to determine such fair value:

	December 31, 2017	Level 1	Level 2	Level 3
Liabilities				
Liability classified stock options	$ 3,945	$ —	$ —	$ 3,945
Warrant liabilities	1,348	—	—	1,348
Total	$ 5,293	$ —	$ —	$ 5,293

	December 31, 2016	Level 1	Level 2	Level 3
Liabilities				
Liability classified stock options	$ 2,458	$ —	$ —	$ 2,458
Warrant liabilities	4,342	—	—	4,342
Total	$ 6,800	$ —	$ —	$ 6,800

The following table presents the changes in fair value of the Company's warrant liabilities:

	Liability at the beginning of the period	Warrants issued	Reclassification to liability from equity	Increase (decrease) in fair value of warrant liabilities	Exercise of warrants	Liability at end of the period
Year ended December 31, 2017	$ 4,342	$ —	$ —	$ (2,450)	$ (544)	$ 1,348
Year ended December 31, 2016	$ —	$ 3,266	$ 268	$ 808	$ —	$ 4,342

The following table presents the changes in fair value of the liability classified stock options:

	Liability at beginning of the period	Reclassification to liabilities from equity	Increase (decrease) in fair value of liability classified stock options	Exercise of options	Foreign currency loss (gain)	Liability at end of the period
Year ended December 31, 2017	$ 2,458	$ 2,879	$ (1,413)	$ (300)	$ 321	$ 3,945
Year ended December 31, 2016	$ 36	$ 947	$ 1,467	$ —	$ 8	$ 2,458

Net Income (Loss) Per Share

The Company follows the two-class method when computing net income (loss) per common share as the Company issued redeemable convertible Class A preferred shares in January 2016 that meet the definition of participating securities. The two-class method determines net income (loss) per share for each class of common and participating securities according to dividends declared or accumulated and participation rights in undistributed earnings. The two-class method requires income available to common shareholders for the year to be allocated between common and participating securities based upon their respective rights to receive dividends as if all income for the period had been distributed. The Company's redeemable convertible Class A preferred shares were non-cumulative, contractually entitle the holders of such shares to participate in dividends, but do not contractually require the holders of such shares to participate in losses of the Company. Accordingly, in periods in which the Company reports a net loss or a net loss attributable to common shareholders resulting from preferred share dividends, net losses are not allocated to participating securities. The Company reported a net loss attributable to common shareholders for all the years presented. The redeemable convertible Class A preferred shares were converted into common share in conjunction with the Company's IPO.

Basic net income (loss) per share attributable to common shareholders is computed by dividing the net income (loss) attributable to common shareholders by the weighted average number of common shares outstanding for the year.

Diluted net income (loss) per share attributable to common shareholders is computed by adjusting net income (loss) attributable to common shareholders to reallocate undistributed earnings based on the potential impact of dilutive securities, including outstanding redeemable convertible Class A preferred shares, stock options and warrants. Diluted net income (loss) per share attributable to common shareholders is computed by dividing the diluted net income (loss) attributable to common shareholders by the weighted-average number of common shares outstanding for the year, including potential dilutive common shares assuming the dilutive effect of outstanding instruments. The if-converted method is used to determine the dilutive effect of the Company's redeemable convertible Class A preferred shares. The treasury stock method is used to determine the dilutive effect of the Company's stock option grants and warrants. ASC 260 "Earnings Per Share" requires an adjustment to the numerator for any income or loss related to ASC 815 liability classified warrants and stock options, if dilutive, if they are presumed to be share settled. The redeemable convertible Class A preferred shares and stock options outstanding were all excluded from the calculation of diluted loss per share because their inclusion would have been anti-dilutive.

	Year Ended December 31,		
	2017	2016	2015
Numerator:			
Net loss attributable to common shareholders:	$ (10,406)	$ (33,809)	$ (19,170)
Deemed dividend due to beneficial conversion feature	(520)	—	—
Basic	$ (10,926)	$ (33,809)	$ (19,170)
Adjustment for change in fair value of ASC 815 liability classified stock options and warrant	(2,757)	—	—
Diluted	$ (13,683)	$ (33,809)	$ (19,170)
Denominator:			
Weighted-average common shares outstanding:			
Basic	21,249,414	12,736,567	11,266,451
Adjustment for dilutive effect of liability classified stock options and warrants	71,795	—	—
Diluted	21,321,209	12,736,567	11,266,451
Net loss per common share - basic	$ (0.51)	$ (2.65)	$ (1.70)
Net loss per common share - diluted	$ (0.64)	$ (2.65)	$ (1.70)

3. Recent Accounting Pronouncements

Initial adoption of new accounting pronouncements

In March 2016, the FASB issued ASU 2016-09, "Compensation – Stock Compensation – Improvements to Employee Share-Based Payment Accounting", which simplifies several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification of the statement of cash flows. The amendments stipulate (a) all excess tax benefits and tax deficiencies should be recognized as income tax expense or benefit in the statement of operations and the tax effects of exercised or vested awards should be treated as discrete items in the reporting period in which they occur, (b) excess tax benefits should be classified along with other tax cash flows as an operating activity, (c) an entity can make an entity-wide accounting policy election to either estimate the number of awards that are expected to vest (current GAAP) or account for forfeitures when they occur, (d) the threshold to qualify for equity classification permits withholding up to the maximum statutory tax rates in the applicable jurisdictions, and (e) cash paid by an employee when directly withholding shares for tax withholding purposes should be classified as financing activity. ASU 2016-09 is effective for fiscal years and interim periods within those years, beginning on or after December 15, 2016. The Company adopted ASU 2016-09 during the year ended December 31, 2017 and elected to continue to estimate the impact of forfeitures when determining the amount of compensation cost to be recognized each period rather than account for forfeitures as they occur. Adoption of this guidance had no significant impact on the Company's consolidated financial statements.

Recent accounting pronouncements not yet adopted

In May 2014, the FASB issued ASU 2014-09, “Revenue from Contracts with Customers (Topic 606)”. The standard, as subsequently amended, is intended to clarify the principles for recognizing revenue for U.S. GAAP by creating a new Topic 606, “Revenue from Contracts with Customers”. This guidance supersedes the revenue recognition requirements in ASC 605, “Revenue Recognition”, and supersedes some cost guidance included in Subtopic 605-35, “Revenue Recognition—Construction-Type and Production-Type Contracts”. The core principle of the accounting standard is that an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. To achieve this core principle, ASU 2014-09 includes provisions within a five-step model that includes identifying the contract with a customer, identifying the performance obligations in the contract, determining the transaction price, allocating the transaction price to the performance obligations, and recognizing revenue when, or as, an entity satisfies a performance obligation. In addition, the standard requires disclosure of the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers.

The new standard will be effective for the Company beginning January 1, 2018 and permits two methods of adoption: (1) the full retrospective method, which requires the standard to be applied to each prior period presented, or (2) the modified retrospective method, whereby ASU 2014-09 would be applied to new contracts and existing contracts with remaining performance obligations as of the effective date, with the cumulative effect of adoption on contracts with remaining performance obligations to be recognized as an adjustment to opening retained earnings in the period of adoption. In 2016, the FASB issued ASU 2016-08 “Revenue from Contracts with Customers: Principal versus Agent Considerations”, ASU 2016-10 “Revenue from Contracts with Customers: Identifying Performance Obligations and Licensing” and ASU 2016-12, “Revenue from Contracts with Customers: Narrow-Scope Improvements and Practical Expedients” to provide supplemental adoption guidance and clarification to ASU 2014-09. The effective date for these new standards is the same as the effective date and transition requirements for ASU 2014-09. The Company will adopt the standard on January 1, 2018 using the modified retrospective method.

The Company has identified three major revenue streams from its collaboration and licensing arrangements: 1) revenue from licensing its intellectual property, which represented 97%, 73% and 78% of the Company’s 2017, 2016 and 2015 revenue, respectively, 2) milestone revenue, which represented 2%, 18% and 10% of its 2017, 2016 and 2015 revenue, respectively, and 3) research support payments, which represented 1%, 9% and 12% of the Company’s 2017, 2016 and 2015 revenue, respectively.

The Company has identified the following areas to assess the potential impact from its collaboration and license agreements:

a) Period of revenue recognition for licensing of intellectual property that are functional and distinct performance obligations: Revenue recognition under the new guidance may result in revenue related to such agreements recognized at a point in time.

b) Milestone payments which could be considered as variable consideration: Any milestone payments that are directly linked to events under the Company’s control will result in variable consideration when determining the contract price under the new guidance and may be recognized earlier to the extent that it is probable that the milestone will be achieved without a significant future reversal of cumulative revenue expected. Under current accounting guidance the Company has applied the milestone method of accounting for recognizing such revenue or contingent payments. However, the majority of the milestones included in the Company’s collaboration and licensing arrangements are outside the Company’s controls with significant uncertainty of achievement.

c) Timing of revenue recognition for license renewals: The new standard may result in license renewal revenue being recognized at a later date.

d) Disclosures: The new standard will result in additional revenue-related disclosures in the footnotes to the consolidated financial statements. The Company continues to evaluate the impact of disclosures in its future consolidate financial statements.

The new revenue recognition standard differs from the current accounting standard in many respects, including the accounting for variable consideration, the measurement of progress toward completion of performance obligations and the timing of revenue recognition for renewals of licenses. The Company has substantially completed extensive reviews of its contracts. Due to the unique contract terms in certain agreements, the Company is still finalizing its assessment of the impact of the adoption of the new standard. The Company will complete its assessment and implementation of the new standard in connection with its first quarter 2018 interim financial statements.

In February 2016, the FASB issued ASU 2016-02, “Leases (Topic 842)”, which amends lease accounting requiring the recognition of lease assets and lease liabilities by lessees for those leases classified as operating leases under previous U.S. GAAP. The new guidance retains a distinction between finance leases and operating leases, with cash payments from operating leases classified within operating activities in the statement of cash flows. It also requires lessees to recognize all leases, including operating leases, with a term greater than 12 months on the balance sheet, for the obligations created by those leases and an offsetting right of use asset. The accounting for lessors will remain largely unchanged from the existing accounting standards. ASU 2016-02 will be effective for fiscal years and interim periods within those years, beginning after December 15, 2018. The Company is currently evaluating the new guidance to determine the impact it will have on its consolidated financial statements.

In January 2017, the FASB issued ASU 2017-04, “Intangibles — Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment.” ASU 2017-04 simplifies the subsequent measurement of goodwill by eliminating Step 2 from the goodwill impairment test, which required an entity to determine the fair value of its assets and liabilities at the impairment testing date. ASU 2017-04 is effective for public companies’ annual periods, including interim periods within those fiscal years, beginning after December 15, 2019. Early adoption is permitted. The adoption of this standard is not expected to have a material impact on the Company’s consolidated financial statements.

In May 2017, the FASB issued ASU 2017-09, “Compensation — Stock Compensation (Topic 718): Scope of Modification Accounting. ASU 2017-09 provides clarification on when modification accounting should be used for changes to the terms or conditions of a share-based payment award. This ASU does not change the accounting for modifications but clarifies that modification accounting guidance should only be applied if there is a change to the value, vesting conditions, or award classification and would not be required if the changes are considered non-substantive. The new guidance is effective for fiscal years beginning after December 15, 2018. The Company is currently assessing the impact that adopting this new accounting standard will have on its consolidated financial statements.

In July 2017, the FASB issued ASU 2017-11, “Earnings Per Share (Topic 260); Distinguishing Liabilities from Equity (Topic 480); Derivatives and Hedging (Topic 815): (Part I) Accounting for Certain Financial Instruments with Down Round Features, (Part II) Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Non-controlling Interests with a Scope Exception”. The ASU was issued to address the complexity associated with applying U.S. GAAP for certain financial instruments with characteristics of liabilities and equity. The ASU, among other things, eliminates the need to consider the effects of down round features when analyzing convertible debt, warrants and other financing instruments. As a result, a freestanding equity-linked financial instrument (or embedded conversion option) no longer would be accounted for as a derivative liability at fair value as a result of the existence of a down round feature. The amendments are effective for fiscal years beginning after December 15, 2018, and should be applied retrospectively. Early adoption is permitted, including adoption in an interim period. The Company is currently assessing the impact that adopting this new accounting standard will have on its consolidated financial statements.

In August 2017, the FASB issued ASU 2017-12, “Derivatives and Hedging (Topic 850): Targeted Improvements to Accounting for Hedging Activities”, the objective of which is to improve the financial reporting accounting principles. For public business entities, the amendments in this update are effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. Early adoption is permitted in any period after issuance. For cash flow and net investment hedges existing at the date of adoption, an entity should apply a cumulative-effect adjustment related to eliminating the separate measurement of ineffectiveness to accumulated other comprehensive income with a corresponding adjustment to the opening balance of retained earnings as of the beginning of the fiscal year that an entity adopts the amendments in this update. The amended presentation and disclosure guidance is required only prospectively. The Company is currently assessing the impact the adoption of the standard will have on its consolidated financial statements.

The Company has reviewed other recent accounting pronouncements and concluded that they are either not applicable to the business, or that no material effect is expected on the consolidated financial statements as a result of future adoption.

4. Short-Term Investments

Short-term investments consist of guaranteed investment certificates (“GICs”) held at financial institutions in accordance with the Company’s treasury policy. These GICs bear interest rate of 1.0%-2.0% per annum with a term to maturity of up to 12 months.

5. Equity Investment and Acquisition of Kairos

Equity Investment in Kairos:

On December 21, 2015, the Company acquired 19.99% of Kairos, a privately held company specializing in the discovery and development of antibody-drug conjugates, for consideration of $3,600 (C$5,000), paid in cash. Legal and scientific transactional costs of $585 (C$812) were also capitalized to the initial cost of the equity investment. The Company's interest in Kairos was accounted for under the equity method. During the year ended December 31, 2015, the Company had no equity interest in Kairos' loss.

The following table presents summarized financial information assuming a 100% ownership interest in Kairos prior to the impact of the transaction and excluding the impact from purchase price adjustments arising from the acquisition.

	December 31, 2015
Total assets	$ 49
Total liabilities	(1,774)
Net assets of Kairos	$ (1,725)

Acquisition of Kairos:

Description of the Transaction

On March 18, 2016, the Company completed the acquisition of all remaining issued and outstanding shares of Kairos, for $24,778 (C$32,257). This consideration was comprised of $23,043 (C$30,000) in common shares of the Company, and $1,733 (C$2,257) in cash, pursuant to a net working capital adjustment determined at closing. Prior to this acquisition the Company had a 19.99% equity interest in Kairos. At the time of acquisition, the Company issued 1,520,371 common shares having a fair value of $19,203 (C$25,000). The remaining 304,074 common shares, having a fair value of $3,770 (C$5,000), were held back for a period of six months under the terms of the agreement for the sellers' satisfaction of general representations and warranties and potential working capital adjustments and were issuable in six months, subject to deductions for any undisclosed matters that may arise during that period. On September 18, 2016, 302,286 common shares were issued after accounting for adjustments relating to undisclosed pre-acquisition invoices. On the date of the acquisition, refundable SR&ED credits receivable by Kairos related to the period preceding the acquisition are payable to CDRD Ventures Inc. ("CVI"), the former majority shareholder of Kairos. As of December 31, 2017, a SR&ED receivable and corresponding payable to CVI of $165 has been recorded in the consolidated financial statements (note 8).

Purchase Price Allocation

The acquisition is accounted for in accordance with ASC 805 "Business Combinations" using the acquisition method. The acquisition method of accounting requires, among other things, that the assets acquired and liabilities assumed in a business combination be measured at their fair values at the closing date of the acquisition.

The fair value of the previously held 19.99% equity interest is calculated as the implied per share fair value based upon the acquisition purchase price reduced by the lack of control discount associated with the 19.99% holding. Upon acquiring the remaining outstanding ownership interest in Kairos, the Company remeasured its original equity interest to its fair value and recognized a $177 gain.

During the three months ended March 31, 2017, the Company finalized the purchase price allocation which was disclosed on a preliminary basis during the measurement period which was from the acquisition date of March 18, 2016 to the date the Company finalized the purchase price allocation during three months ended March 31, 2017. The fair values of the consideration issued, assets acquired and liabilities assumed in the acquisition at March 18, 2016 were finalized with no revisions and adjustments on the previously reported preliminary amounts. The final consideration and purchase price allocation were as follows:

Total Consideration:	
1,822,657 Zymeworks common shares	$ 22,973
Cash paid	1,733
Total consideration for 80.01% equity	24,706
Fair value of previously held 19.99% equity interest	4,264
Implied purchase price consideration for 100% equity	$ 28,970
Net assets acquired:	
Cash and cash equivalents	$ 1,811
Receivables and other assets	546
Acquired IPR&D	20,700
Goodwill	12,016
Accounts payable and accrued liabilities	(721)
Deferred tax liabilities	(5,382)
	$ 28,970

The fair value of each IPR&D project is estimated using either the cost approach, market approach or combination of the two. The cost approach estimates the total value of the asset by reference to costs that would have been incurred in order to recreate the asset while the market approach analyses recent transactions involving comparable assets. Within these two approaches the following valuation methods were used: comparable public company cost multiple approach, expected investor return approach, and the guideline technology and collaboration transactions approach. IPR&D are required to be classified as indefinite-lived assets until they become definite lived assets upon the successful completion or the abandonment of the associated research and development effort. Accordingly, all IPR&D acquired is currently classified as indefinite-lived and is not currently being amortized.

Based on the fair values above, an amount of $12,016 has been allocated to goodwill, which represents the excess of the purchase price over the fair values assigned to the net assets acquired. Goodwill is attributable to strategic, synergistic and other benefits expected to arise after the Company’s acquisition of Kairos. Kairos’ antibody-drug conjugate platform technology has a potential to develop new technologies and therapeutics, and the Company believes that additional platforms may emerge from the research synergies afforded by the business combination. Synergies are expected as both the Company and Kairos are underpinned by complementary antibody technologies and both have experience in designing and developing antibodies as product candidates. There is also future potential value expected to be derived from Kairos’ existing collaboration agreements, and the potential to enter into new collaboration agreements. The Company will also benefit from the expertise, knowledge, experience and networks of the Kairos’ management team, as well as the depth and breadth of its existing laboratory research team in the fields of chemistry and biologics.

The full amount of the value of goodwill has been assigned to the entire Company, since management has determined that the Company has only one reporting unit. The goodwill is not deductible for tax purposes, and is not amortized, but will be evaluated for impairment on an annual basis or more often if the Company identifies impairment indicators that would require earlier testing.

At the time of the acquisition, a deferred tax liability of $5,382 was recorded for the excess of the fair value of the IPR&D over the corresponding tax bases, with a corresponding increase recorded to goodwill. The deferred tax liability relates to an indefinite-lived asset. In addition, Zymeworks Inc. has unclaimed tax deductions for SR&ED tax credits with no expiry, for which the Company previously had provided a valuation allowance. Because of the indefinite life of these tax attributes, the deferred tax liability that arose from the preliminary purchase price allocation has been used as a source of potential income in determining that the realization of certain SR&ED tax credits is now more likely than not. Consequently, the Company reduced its valuation allowance by $5,407 and recognized a corresponding deferred income tax recovery in the statement of loss.

The consolidated statement of loss for the year ended December 31, 2016 included $(98) related to the equity in loss of Kairos for the period prior to March 18, 2016. Financial and operating results of Kairos were included in the Company's consolidated financial statements effective March 18, 2016.

Impairment Evaluation for Intangible Assets and Goodwill

All IPR&D acquired in the Kairos business combination is classified as indefinite-lived and is not currently being amortized. IPR&D becomes definite-lived upon the completion of the associated research and development efforts, and will be amortized from that time over an estimated useful life based on respective patent terms. The Company evaluates the recoverable amount of intangible assets on an annual basis and performs an annual evaluation of goodwill as of December 31 each year, unless there is an event or change in the business that could indicate impairment, in which case earlier testing is performed.

For the year ended December 31, 2016, the Company recorded an impairment charge of $768 for the discontinuance of the Co-Development program with Oxford BioTherapeutics ("OBT Co-Development"). The corresponding deferred tax liability and deferred tax asset balances of $198 were also reversed which resulted in deferred tax liability and offsetting deferred tax asset of $5,127 related to IPR&D as of December 31, 2016. Furthermore, for the three months ended March 31, 2017, the Company recorded an impairment charge of $1,536 related to the fair value of IPR&D recognized in relation to the Research Collaboration Agreement with OBT ("OBT Technology Swap Agreement") as the Company chose not to advance the associated research and development projects within the research term which expired on February 11, 2017. The corresponding deferred tax liability and deferred tax asset balances of $399 were also reversed. The following table summarizes the carrying value of IPR&D, net of impairment:

	December 31,	
	2017	2016
Acquired IPR&D	$ 20,700	$ 20,700
Impairment	(2,304)	(768)
Acquired IPR&D, net	$ 18,396	$ 19,932

The Company performed its annual impairment test on intangible assets as of December 31, 2017 and there were no other impairment charges recorded in 2017.

The Company performed its annual impairment test for goodwill as of December 31, 2017. As part of the evaluation of the recoverability of goodwill, the Company has identified only one reporting unit to which the total carrying amount of goodwill has been assigned. As at December 31, 2017, the Company performed a qualitative assessment for impairment of goodwill, considering factors including industry and market conditions, macro economic conditions, and the excess of market capitalization over the carrying value of the net assets at December 31, 2017, and concluded that it is not more likely than not that the fair value of the reporting unit is less than its carrying value. Consequently, the step 1 quantitative test was not required. The Company performed a quantitative impairment test as of December 31, 2016, and no impairment was recorded as the fair value of reporting unit exceeded its carrying value.

6. Property and Equipment

Property and equipment consists of the following:

	December 31, 2017	December 31, 2016
Computer hardware	$ 1,575	$ 1,391
Furniture and fixtures	552	386
Office equipment	484	316
Laboratory equipment	4,895	3,745
Leasehold improvements	3,022	2,144
Construction in progress	196	622
Property and equipment	$ 10,724	$ 8,604
Less accumulated depreciation	(3,546)	(1,883)
Property and equipment, net	$ 7,178	$ 6,721

During the year ended December 31, 2017, the Company entered into a new capital lease for office equipment of $10 (2016– $14). Total assets under capital lease were $78 and $68 at December 31, 2017 and 2016, respectively; accumulated depreciation for these assets were $47 and $25 at December 31, 2017 and 2016, respectively. As of December 31, 2017, the total future minimum lease payments for the capital leases are $12.

Depreciation expense on property and equipment for the years ended December 31, 2017, 2016 and 2015 was $1,681, $541 and $280, respectively.

7. Intangible Assets

Intangible assets consist of the following:

	December 31, 2017	December 31, 2016
Computer software and licenses	$ 2,812	$ 1,706
Less accumulated amortization	(2,064)	(1,007)
Intangible assets, net	$ 748	$ 699

Amortization expense on intangible assets for the years ended December 31, 2017, 2016 and 2015 was $1,058, $484 and $214 respectively.

8. Liabilities

Accounts payable and accrued liabilities consist of the following:

	December 31, 2017	December 31, 2016
Trade payables	$ 1,664	$ 2,955
Accrued research expenses	4,708	2,305
Employee compensation and vacation accruals	1,981	1,651
Accrued legal and professional fees	308	1,489
Payable to CVI for Kairos SR&ED receivable (note 5)	165	131
Other	227	946
Total	$ 9,053	$ 9,477

Other current liabilities consisted of the following:

	December 31, 2017	December 31, 2016
Current income tax liability	$ 158	$ 230
Current portion of lease inducements	147	41
Current portion of capital lease liability	10	8
Total	$ 315	$ 279

Other long term liabilities consisted of the following:

	December 31, 2017	December 31, 2016
Liability for contingent consideration (note 15)	$ 470	$ —
Lease inducements	344	92
Capital lease liability	52	49
Total	$ 866	$ 141

9. Warrant liabilities and long-term debt

a. Perceptive Debt

Description of transaction:

On June 2, 2016, the Company entered into a Credit Agreement (the “Perceptive Debt”) with Perceptive Credit Opportunities Fund L.P. and PCOF Phoenix II Fund L.P. (collectively, the “Perceptive”). The total credit facility was for $15.0 million consisting of Tranche A and Tranche B term loans for $7.5 million each. The Tranche A term loan was made available to the Company on June 2, 2016, with total net proceeds received of $6,953, after deducting commissions, legal and other administrative costs.

The interest rate on the Tranche A term loan was LIBOR plus an applicable margin of 10% per annum with LIBOR to be a minimum of 1% with monthly interest payments. $225 monthly principal payments were scheduled to commence on June 2, 2018, with the remaining outstanding principal balance to be paid on June 2, 2020. Under the Credit Agreement, the Company had the option to settle the loan earlier, subject to certain early payment premiums.

On June 2, 2016, pursuant to the terms of the Perceptive Debt, the Company also issued Warrant Certificates which entitled Perceptive Credit Opportunities Fund, L.P. to purchase up to 295,009 Redeemable Convertible Class A Preferred Shares of the Company at an exercise price of $11.69 per share, with an expiry term of five years (the “Perceptive Warrants”). These warrants were classified as liabilities and were recorded at their estimated fair value as they contained a down-round provision and because the shares underlying the warrants could have obligated the Company to transfer assets to the holders at a future date under certain circumstances, such as a deemed liquidation event. Changes in fair value are recorded in the consolidated statements of loss and comprehensive loss.

The warrants were initially recorded at their fair value at issuance of $3,266 and the residual balance of the original principal, $4,234, has been recorded as long-term debt. The long-term debt was being accreted to its face value of $7,500 over the four-year term of the Perceptive Debt. On August 3, 2016, the Warrant Certificates were assigned to Perceptive Credit Holdings, LP, an affiliate of Perceptive.

The Company paid approximately $845 of administrative, legal fees and other costs in connection with the Perceptive Debt, including expenses incurred prior to the transaction date. Of this amount, $368 attributed to the warrants was expensed on the date of the transaction, while $477 was allocated to long-term debt and was being amortized to finance expense over the term of the Perceptive Debt.

Immediately prior to the consummation of the IPO, in conjunction with the conversion of the Company's Redeemable Convertible Class A Preferred Shares into common shares (note 10.c), the Redeemable Convertible Class A Preferred Share Warrants were converted on a 1.349367-for-1 basis into common share warrants to purchase up to 398,076 common shares of the Company at an exercise price of $8.67 per share. These common share warrants were classified as liabilities as they contained a down-round provision and because of the understanding that in compliance with applicable securities laws, the warrants required the issuance of registered securities upon exercise and did not sufficiently preclude an implied right to net cash settlement.

Early Repayment of the Perceptive Debt:

On June 6, 2017 (the "Repayment Date"), the Company exercised its option to repay the total outstanding debt ahead of the maturity date, pursuant to the terms of the Credit Agreement. On the Repayment Date, the Company paid $7,814 which consisted of the outstanding principal balance ($7,500), an early repayment premium ($300) as well as legal fees ($14). At the time of repayment, all liabilities and obligations of the Company and Perceptive terminated automatically. The repayment did not affect Perceptive's rights in connection with the Perceptive Warrants which will remain outstanding until exercised or expired.

From January 1, 2017 to June 6, 2017, the Company recorded $360 in interest expense, $248 in accretion expense and $35 in amortization of debt issue costs.

	Year ended December 31, 2017
Long term debt at the time of financing	$ 4,234
Accretion in 2016	576
Less: unamortized debt issue costs at December 31, 2016	(393)
Long term debt at December 31, 2016, net of deferred charges	$ 4,417
Accretion during the period up to the Repayment Date	248
Amortization of debt issue costs during the period up to the Repayment Date	35
Carrying value of long term debt on the Repayment Date, net of deferred charges	$ 4,700
Repayment, including repayment premium and expenses	(7,814)
Loss on debt extinguishment	$ (3,114)

The Credit Agreement contained various customary affirmative, negative and financial covenants, agreements, representations, warranties, borrowing conditions, and events of default. The Company was in compliance with all covenants at December 31, 2016 and during 2017 until the repayment date.

b. Warrant Liabilities

Warrant liabilities include the following:

	December 31, 2017	December 31, 2016
Perceptive Warrants (note 9.a)	$ 1,348	$ 3,314
CTI Warrants	—	1,028
Total warrant liabilities	$ 1,348	$ 4,342

On October 22, 2014, the Company issued 117,320 common share purchase warrants to CTI Life Sciences Fund, L.P. ("CTI") in conjunction with a share exchange (the "CTI Warrants"). Each warrant entitles the holder of the warrants to subscribe for and purchase, subject to the terms and restrictions of the agreement, one fully paid common share of the Company, at a purchase price of C$11.60 per common share. The warrants had an expiry date of the earlier of October 22, 2017 or certain transactions or events as defined under the agreement. These warrants were originally recorded in shareholders' equity. Upon the change of the functional currency from Canadian dollars to U.S. dollars effective January 1, 2016, these warrants were reclassified as liability awards at that date. Subsequently, this liability classified warrant is measured at fair value at each reporting period until exercised or cancelled, with changes in fair value recorded in the consolidated statements of loss and comprehensive loss. Upon the completion of the filing of a preliminary prospectus in Canada and a registration statement in the U.S., the Company exercised its option to accelerate the expiration date by giving written notice to the holder, which provided the holder 30 days to exercise the warrant under the terms of the CTI Warrant certificate. On April 18, 2017, CTI exercised its warrants to purchase 117,320 common shares of the Company at a price of C$11.60 for proceeds of $1,018 (C$1,361). On the date of exercise, the fair value of the CTI Warrants liability was $544 which was recorded in the common shares account. The fair value of the CTI Warrants decreased by $484 during the period leading up to the exercise of the warrants.

The Company recorded a $1,967 decrease in fair value of warrant liabilities during the year ended December 31, 2017, related to the Perceptive Warrants. The estimated fair value of the Perceptive Warrants was determined using the Black-Scholes option pricing model with the following assumptions:

	December 31,	
	2017	2016
Expected term	3.42 years	4.42 years
Dividend yield	0%	0%
Expected volatility	66.7%	67.4%
Risk-free interest rate	2.09%	1.93%

10. Redeemable Convertible Class A Preferred Shares, Special Shares and Shareholders' Equity

The number of shares and per share amounts are not presented in thousands.

a. Authorized

On May 2, 2017, the Company's new Articles of Incorporation were issued under which the Company has an unlimited number of voting Common Shares and Preferred Shares without par value.

Under the Company's former Articles of Incorporation dated December 21, 2015, the Company had 6,413,265 authorized Redeemable Convertible Class A Preferred Shares.

b. Redeemable Convertible Class A Preferred Shares

The rights and preferences of the Redeemable Convertible Class A Preferred Shares were as follows:

The Class A preferred shares accrued dividends at 8% per annum non-cumulative, payable only as, when and if, declared by the Board of Directors of the Company (the "Board"). In addition, holders of the Class A preferred shares would have been entitled to receive, when and as declared by the Board, dividends in an amount equal to any dividend per common share declared by the Board on the common shares multiplied by the number of common shares that would be issued in exchange for the Class A preferred shares upon conversion.

Optional conversion: Each Class A preferred share was convertible at any time at the option of the holders into common shares, which is determined by dividing the Class A original issue price of $11.69 per share by the Class A conversion price in effect at the time of the conversion.

Mandatory conversion: Upon either a) the closing of the sale of common shares to the public at a price of at least 1.4 times the Class A original issue price of $11.69 per share in a firm-commitment underwritten public offering resulting in at least $50 million of gross proceeds, or b) the date and time, or the occurrence of an event, specified by vote or written consent of the holders of at least a majority of the then outstanding Class A Preferred Share, all outstanding Class A preferred shares would have been automatically converted into common shares at the effective conversion rate. However, in the event the common share public issuance price is less than 1.5 times the Class A original issue price of $11.69 per share, then immediately prior to, and contingent upon such conversion, the Class A conversion price would be automatically adjusted to equal the lesser of (a) the quotient obtained by dividing the per share price in such public offering by 1.5 and (b) the Class A conversion price in effect as of immediately prior to such public offering.

Upon the liquidation, dissolution, reorganization or winding-up of the Company, holders of Class A preferred shares were entitled to receive, before any distribution or payment on the common shares, an amount equal to the greater of:

(i) (a) if such event occurred prior to January 7, 2017, 1.25 times the Class A original issue price of $11.69 per share,

(b) if such event occurred after January 7, 2017, 1.5 times the Class A original issue price of $11.69 per share,

under both cases plus any dividends declared but unpaid

(ii) amount per share payable had all Class A preferred shares been converted into common shares in accordance with the conversion mechanism.

The preferences over common shareholders would have ceased to exist upon conversion of preferred shares into common shares.

Each preferred shareholder was entitled to the number of votes that such shareholder would be entitled to if such preferred shares were converted to common shares.

The Company assessed the issued Class A preferred shares for any beneficial conversion features or embedded derivatives, including the conversion option, that would require bifurcation from the applicable series of preferred shares and receive separate accounting treatment. On the date of the issuance of preferred shares, the fair value of the common shares into which the Class A preferred shares were convertible was less than the effective conversion price of such shares and, as such, there was no intrinsic value of the conversion option on the commitment date. There was a contingent beneficial conversion feature that would have become applicable if an initial public offering was completed at an issue price in excess of the conversion price within one year of the date the preferred shares were issued.

Prior to the IPO, the Company classified its preferred shares outside of permanent equity as the redemption of such shares was not solely under the control of the Company.

c. Conversion of Redeemable Convertible Class A Preferred Shares to Common Shares

Immediately prior to the consummation of the IPO, all outstanding Redeemable Convertible Class A Preferred Shares were converted into 7,098,194 common shares on a 1-for-1.349367 basis and no Redeemable Convertible Class A Preferred Shares were outstanding as of December 31, 2017.

The IPO was completed at $13.00 per share issued which resulted in an adjustment to the conversion price and a beneficial conversion feature related to the Class A preferred shares as the fair value of the common shares at the commitment date exceeded the effective conversion price at the IPO date. This beneficial conversion feature of $520 was recorded as an increase to additional paid-in capital and the resulting deemed dividend was reflected as an increase in accumulated deficit.

d. Preferred Shares

The rights and preferences of the unissued Preferred Shares are as follows:

Holders of Preferred Shares will be entitled to preference with respect to payment of dividends over the Common Shares and any other shares ranking junior to the Preferred Shares with respect to payment of dividends.

In the event of the liquidation, dissolution or winding-up of the Company, whether voluntary or involuntary, or any other distribution of the assets of the Company among its shareholders for the purpose of winding up its affairs, the holders of the Preferred Shares will be entitled to preference over the Common Shares and any other shares ranking junior to the Preferred Shares with respect to the repayment of capital paid up on and the payment of unpaid dividends accrued on the Preferred Shares.

The Preferred Shares may also be given such other preferences over the Common Shares and any other shares ranking junior to the Preferred Shares as may be fixed by directors' resolution as to the respective series authorized to be issued.

e. Stock-Based Compensation

Original Stock Option Plan:

On July 14, 2006, the shareholders approved an employee stock option plan (the "Original Plan"). The Original Plan provides for the granting of options to directors, officers, employees and consultants. Options to purchase common shares may be granted at an exercise price of each option equal to the last private issuance of common shares immediately preceding the date of the grant. The total number of options outstanding is not to exceed 20% of the issued common shares of the Company.

Options granted under the Original Plan are exercisable at various dates over their ten-year life. New common shares are issued when options are exercised.

For options issued to employees, the shares available for issuance under the Original Plan vest over 4 years. Shares available for issuance under the Original Plan issued to directors, vest over 3 years, and shares available for issuance under the Original Plan issued to consultants and members of the Scientific Advisory Board vest immediately upon issuance.

The exercise prices of the Company's stock options are denominated in Canadian dollars. The U.S. dollar amounts have been translated using the period end rate or the average rate for the period, as applicable, and have been provided for information purposes.

New Stock Option Plan:

On April 10, 2017, a new stock option plan (the "New Plan"), was approved by the shareholders of the Company and it became effective immediately prior to the consummation of the IPO. The New Plan allows for the grant of options to directors, officers, employees and consultants in U.S. or Canadian dollars. The Company may also grant incentive stock options ("ISOs"), within the meaning of Section 422 of the Code, to its employees under the New Plan.

The maximum number of common shares reserved for issuance, in the aggregate, under the New Plan is not to exceed a rolling number equal to 17% of the Company's issued and outstanding common shares (on a non-diluted basis) at the time of grant of options under the New Plan (and shall include the number of common shares that are reserved for issuance upon the exercise of stock options outstanding as of the effective time of the New Plan that were previously granted under the Original Plan). ISOs may be granted with respect to a maximum fixed amount equal to 20% of the common shares reserved for issuance under the New Plan at the effective time of the New Plan. Since the inception of the New Plan, the Company has granted 917,705 options under the New Plan.

All options granted under the New Plan will have an exercise price determined and approved by the Board at the time of grant, which shall not be less than the market price of the common shares at such time. For purposes of the New Plan, the market price of the common shares shall be the volume weighted average trading price of the common shares on the TSX, (or the stock exchange where the majority of trading volume and value of the common shares has occurred for the five trading days prior to the relevant date) for the five trading days ending on the last trading day before the day on which the option is granted. The Company may convert a market price denominated in Canadian currency into United States currency and vice versa and such converted amount shall be the market price.

An option shall be exercisable during a period established by the Board which shall commence on the date of the grant and shall terminate not later than ten years after the date of the granting of the option. The New Plan provides that the exercise period shall automatically be extended if the date on which it is scheduled to terminate shall fall during a black-out period. In such cases, the extended exercise period shall terminate on the tenth business day after the last day of the black-out period.

All options shall vest in accordance with the terms of their grant agreements.

The following table summarizes the Company's stock options granted in Canadian dollars under the Original Plan and the New Plan:

	Number of Options	Weighted-Average Exercise Price (C$)	Weighted-Average Exercise Price ($)	Weighted-Average Contractual Term (years)	Aggregate intrinsic value (C$)	Aggregate intrinsic value ($)
Outstanding, December 31, 2015	1,101,816	9.43	6.80	6.79	3,826	2,764
Granted	982,913	14.30	10.79			
Expired	(10,230)	9.26	6.99			
Exercised	(4,540)	4.94	3.72			
Forfeited	(159,438)	12.60	9.52			
Outstanding, December 31, 2016	1,910,521	11.67	8.69	7.36	20,958	15,609
Granted	731,528	18.91	14.56			
Expired	(80,254)	12.75	9.82			
Exercised	(207,777)	6.02	4.64			
Forfeited	(90,306)	18.23	14.04			
Outstanding, December 31, 2017	2,263,712	14.24	11.35	7.53	1,455	1,160
December 31, 2017:						
Exercisable	1,135,979	11.46	8.83			
Vested and expected to vest	2,211,968	14.17	10.91			

The following table summarizes the Company's stock options granted in U.S. dollars under the New Plan:

	Number of Options	Weighted-Average Exercise Price ($)	Weighted-Average Contractual Term (years)	Aggregate intrinsic value ($)
Outstanding, December 31, 2016	—	—	—	—
Granted	650,480	9.70		
Expired	—	—		
Exercised	—	—		
Forfeited	(13,885)	9.82	—	—
Outstanding, December 31, 2017	636,595	9.70	9.46	15
December 31, 2017:				
Exercisable	1,396	6.80		
Vested and expected to vest	606,445	9.70		

The Company received cash of $965 (C$1,250) (2016 — $17 (C$22), 2015 — $128 (C$162)), resulting from stock options exercised.

The following table summarizes information pertaining to the Company's stock options granted in Canadian dollars under the Original Plan and the New Plan and outstanding at December 31, 2017 and December 31, 2016:

	As of December 31, 2017						
	Options outstanding				Options exercisable		
Exercise price (C$)	Number of options outstanding	Weighted-average remaining contractual life (years)	Weighted-average exercise price (C$)	Weighted-average exercise price (US$)	Number of options exercisable	Weighted-average exercise price (C$)	Weighted-average exercise price (US$)
3.58	16,760	1.42	3.58	2.85	16,760	3.58	2.85
4.75	165,473	2.25	4.75	3.79	165,473	4.75	3.79
5.37	86,732	3.94	5.37	4.28	86,732	5.37	4.28
7.26	89,498	4.95	7.26	5.79	89,498	7.26	5.79
9.94	59,000	9.98	9.94	7.92	—	—	—
11.60	119,834	6.21	11.60	9.25	114,205	11.60	9.25
12.10	597,992	8.09	12.10	9.65	296,763	12.10	9.65
13.21	176,930	9.45	13.21	10.53	—	—	—
14.44	291,186	7.09	14.44	11.51	247,268	14.44	11.51
20.74	221,667	8.86	20.74	16.53	65,516	20.74	16.53
22.60	429,422	9.10	22.60	18.02	53,764	22.60	18.02
22.65	9,218	9.02	22.65	18.06	—	—	—
3.58 to 22.65	2,263,712	7.53	14.24	11.35	1,135,979	11.46	9.14

	As of December 31, 2016						
	Options outstanding				Options exercisable		
Exercise price (C$)	Number of options outstanding	Weighted-average remaining contractual life (years)	Weighted-average exercise price (C$)	Weighted-average exercise price (US$)	Number of options exercisable	Weighted-average exercise price (C$)	Weighted-average exercise price (US$)
3.58	16,760	0.4	3.58	2.67	16,760	3.58	2.67
4.75	292,030	2.7	4.75	3.53	292,030	4.75	3.53
5.37	110,406	4.9	5.37	4.01	110,406	5.37	4.01
7.26	127,995	6.0	7.26	5.39	127,863	7.26	5.39
11.60	152,567	7.2	11.60	8.64	118,022	11.60	8.64
12.10	632,690	9.1	12.10	9.02	31,425	12.10	9.02
14.44	328,406	8.1	14.44	10.76	218,954	14.44	10.76
20.74	249,667	9.9	20.74	15.44	—	—	—
3.58 to 20.74	1,910,521	7.4	11.67	8.69	915,460	8.62	6.42

The following table summarizes information pertaining to the Company's stock options granted in U.S. dollars under the New Plan and outstanding at December 31, 2017:

	As of December 31, 2017				
	Options outstanding			Options exercisable	
Exercise price (US$)	Number of options outstanding	Weighted-average remaining contractual life (years)	Weighted-average exercise price (US$)	Number of options exercisable	Weighted-average exercise price (US$)
6.80	18,855	9.62	6.80	1,396	6.80
7.75	9,000	9.98	7.75	—	—
9.82	608,740	9.45	9.82	—	—
6.80 to 9.82	636,595	9.46	9.70	1,396	6.80

The stock options expire at various dates from June 30, 2018 to December 21 2027.

A summary of the non-vested stock option activity and related information of the Company's stock options granted in Canadian dollars is as follows:

	Number of options	Weighted-average fair value price (C$)	Fair value (C$)	Weighted-average fair value price (US$)
Non-vested, December 31, 2016	995,061	8.90	8,867	6.93
Options granted	731,528	9.99	7,309	7.69
Options vested	(508,601)	8.78	(4,467)	6.76
Options forfeited and cancelled	(90,255)	9.23	(833)	7.11
Non-vested, December 31, 2017	1,127,733	9.64	10,876	7.69

A summary of the non-vested stock option activity and related information of the Company's stock options granted in U.S. dollars is as follows:

	Number of options	Weighted-average fair value price (US$)	Fair value (C$)
Non-vested, December 31, 2016	—	—	—
Options granted	650,480	3.58	2,331
Options vested	(1,396)	6.06	(8)
Options forfeited and cancelled	(13,885)	3.41	(47)
Non-vested, December 31, 2017	635,199	3.58	2,276

The estimated fair value of options granted to officers, directors, employees and consultants is amortized over the vesting period. Compensation expense is recorded in research and development expenses and general and administration expenses as follows:

	Year Ended December 31,		
	2017	2016	2015
Research and development	$ 1,406	$ 2,615	$ 924
General and administrative and finance expenses	2,023	1,676	465
Total	$ 3,429	$ 4,291	$ 1,389

For the year ended December 31, 2017, $4,827 of share-based compensation expense was recorded in additional paid-in capital and the remaining balance was recorded in the liability classified stock options and ESPP liability accounts (2016 — $2,797 in additional paid-in capital and the remaining balance in liability classified stock options account, 2015 — $1,353 in additional paid-in capital and the remaining balance in liability classified stock options account).

The estimated fair value of the stock options granted was determined using the Black-Scholes option pricing model with the following weighted-average assumptions:

	Year ended December 31,		
	2017	2016	2015
Dividend yield	0%	0%	0%
Expected volatility	66.1%	70.5%	66.3%
Risk-free interest rate	1.28%	1.08%	1.50%
Expected average life of options	5.89 years	5.91 years	5.73 years

Expected Volatility—Volatility is a measure of the amount by which a financial variable such as a share price has fluctuated (historical volatility) or is expected to fluctuate (expected volatility) during a period. As the Company does not yet have sufficient history of its own volatility, the Company has identified several public entities of similar complexity and stage of development and calculates historical volatility using the volatility of these companies.

Risk-Free Interest Rate—This rate is from the Government of Canada marketable bonds for the month prior to each option grant during the year, having a term that most closely resembles the expected life of the option.

Expected Term—This is the period of time that the options granted are expected to remain unexercised. Options granted have a maximum term of ten years. The Company estimates the expected life of the option term to be six years. The Company uses the simplified method to calculate the average expected term, which represents the average of the vesting period and the contractual term.

Share Fair Value—Options granted after the Company's IPO, are issued at the fair market value of the Company's stock at the date the grant is approved by the Board. Before the IPO, the Company granted stock options at exercise prices not less than the fair value of its common shares as determined by the Board, with input from management. Management estimated the fair value of its common shares based on a number of objective and subjective factors, including the most recently available valuation of common shares prepared by independent valuation specialists, external market considerations affecting the biotechnology industry and the historic prices at which the Company sold common shares.

The weighted-average Black-Scholes option pricing assumptions for liability classified stock options outstanding at December 31, 2017 and 2016 are as follows:

	December 31, 2017	December 31, 2016
Dividend yield	0%	0%
Expected volatility	66.5%	67.5%
Risk-free interest rate	1.55%	0.96%
Expected average option term	5.89 years	5.89 years
Number of liability classified share options outstanding	1,475,485	758,569

The total intrinsic value of options exercised during the year ended December 31, 2017, 2016 and 2015 was C$2,013, C$51 and C$328, respectively. At December 31, 2017, the unamortized compensation expense related to unvested options was $7,093 (C$8,898). The remaining unamortized compensation expense as of December 31, 2017 will be recognized over a weighted-average period of 2.08 years.

f. Employee Stock Purchase Plan:

On April 10, 2017, the employee stock purchase plan, ("ESPP"), was approved by the shareholders of the Company and it became effective immediately prior to the consummation of the IPO. Under the ESPP, eligible employees will be able to acquire the Company's common shares at a discount from the average market price of the common shares on the purchase date. The ESPP is intended to qualify as an "employee stock purchase plan" within the meaning of Section 423 of the Code for employees who are United States taxpayers.

Eligible employees will be able to contribute up to 15% of their gross base earnings for purchases under the ESPP through regular payroll deductions. Purchase of shares under the ESPP are limited for each employee at $25 (twenty five thousand dollars) worth of the Company's common shares (determined on the grant date of the purchase right) for each year such purchase right is outstanding.

The ESPP is implemented through a series of offerings under which eligible employees are granted rights to purchase the Company's common shares at the end of specified purchase periods. The Company currently holds offerings consisting of a single six-month purchase period commencing on January 1 and July 1 of each calendar year, with a single purchase date at the end of the purchase period on June 30 and December 31 of each calendar year. The first six-month purchase period commenced on July 1, 2017.

Common shares purchased under the ESPP will be issued from treasury at a purchase price equal to 85% of the average market price of the common shares on such date, all in accordance with applicable laws and the terms and conditions of the ESPP. For the purposes of the ESPP, the average market price of the common shares as at a given date shall be the weighted average trading price on the trading day immediately preceding such date.

The number of common shares reserved for issuance under the ESPP will not exceed 650,000 common shares, plus the number of common shares that are automatically added on January 1st of each year, commencing on (and including) January 1, 2018 and ending on (and including) January 1, 2027, in an amount equal to the lesser of (i) 1% of the total number of common shares issued and outstanding on December 31st of the preceding calendar year, and (ii) 1,000,000 common shares.

As this plan is considered compensatory, a charge of $15 has been recorded to research and development expense and general and administrative expense accounts for the difference between the fair market value and the discounted price. As of December 31, 2017, total amount contributed by the ESPP participants is $102 which corresponds to 13,247 common shares which were issued subsequent to the balance sheet date.

11. Government Grants and Credits

	Year Ended December 31,		
	2017	2016	2015
SR&ED credits, net	$ 857	$ 1,265	$ 251
IRAP credits	218	—	—
Total	$ 1,075	$ 1,265	$ 251

The Company accrued refundable investment tax credits receivable for the year ended December 31, 2017 of $229 as well as a true-up adjustment of $435 and $193 for years 2016 and 2015, which have been recorded as a reduction of research and development expenses in the statement of loss and comprehensive loss. The SR&ED receivable of $2,092 as of December 31, 2017, includes $1,698 relating to the investment tax credit for 2016 that was not collected yet and $165 relating to the SR&ED credits receivable by Kairos related to the period preceding the acquisition (note 5). Although the Company has used its best judgment and understanding of the related income tax legislation in determining its claims, it is possible the amounts could increase or decrease materially in the future, as the Canada Revenue Agency reserves the right to review and audit the investment tax credit claims.

During the current year, the Company recognized and collected $218 under IRAP. Research grants were recorded as a reduction in research and development expenses in the statement of loss and comprehensive loss. The IRAP funding agreement contains contingency clauses which could require repayment of funding if certain conditions are not met. The Company is in compliance with these conditions.

12. Research Collaboration and Licensing Agreements

The Company has entered into a number of collaboration and licensing agreements including some under which it may receive non-refundable upfront payments for licenses to therapeutic platforms. When the Company determines that the license and the related therapeutic platform have stand-alone value to the licensee, these items are considered a unit of accounting and consideration allocated to this unit of accounting is recognized upon delivery of the therapeutic platform. When research services related to the transfer of the technical information are required, then the license, applicable research services, and therapeutic platform are considered a unit of accounting and the Company generally recognizes revenue from the applicable upfront payments ratably over the estimated period the research services are provided.

The collaborations may also include other research services and contractual milestone payments, which relate to the achievement of pre-specified research, development, regulatory and commercial milestones. The process of successfully achieving the criteria for the milestone payments is highly uncertain. Consequently, there is a significant risk that the Company may not earn all of the milestone payments from each of its strategic partners.

Research and development milestones in the Company’s collaboration agreements may include some, but not necessarily all, of the following types of events:

- completion of preclinical research and development work leading to selection of product candidates;
- initiation of Phase 1, Phase 2 and Phase 3 clinical trials; and
- achievement of certain other technical, scientific or development criteria.

Regulatory milestone payments may include the following types of events:

- filing of regulatory applications for marketing approval in the United States, Europe or Japan, including Investigational New Drug (“IND”) applications and Biologics License Application (“BLA”); and
- marketing approval in major markets, such as the United States, Europe or Japan.

Commercial milestone payments in the Company’s agreements may include payments triggered by annual product sales that achieve pre-specified thresholds and the achievement of these commercial milestones may solely depend upon performance of the collaborator or licensee. Commercial milestones do not meet the ASC 605-28 definition of a milestone because achievement of the milestone solely depends on the performance of the licensee.

Each contingent and milestone payment is evaluated to determine whether it is substantive and at risk to both parties. The Company recognizes any payment that is contingent upon the achievement of a substantive milestone entirely in the period in which the milestone is achieved assuming collection is reasonably assured. Any revenue from non-substantive milestones and milestones that do not meet the ASC 605-28 definition of a milestone is subject to an allocation of arrangement consideration and is recognized over the remaining period of the performance obligations, if any, relating to the arrangement. If there are no remaining performance obligations under the arrangement at the time the contingent payment is triggered, the contingent payment is recognized as revenue in full upon the triggering event occurring.

Strategic Partnership Revenue

The following table presents summarized revenue recognized from the Company's strategic partnerships.

	Year ended December 31,		
	2017	2016	2015
Janssen:			
Recognition of upfront fee	$ 50,000	$ —	$ —
Merck:			
Research support payments	1	832	857
Lilly:			
Milestone revenue	—	2,000	1,025
Research support payments	15	46	263
Celgene:			
Recognition of upfront payment	—	—	7,515
GSK:			
Technology access fee	—	6,000	—
Daiichi Sankyo:			
Technology access fee	—	2,000	—
Milestone revenue	1,000	—	—
Research support payments	700	131	—
Other	46	—	—
	$ 51,762	$ 11,009	$ 9,660

Research and License Agreement with Merck Sharp & Dohme Research Ltd. ("Merck")

On August 22, 2011, the Company entered into a Research and License Agreement with Merck providing Merck a worldwide license to develop and commercialize novel bispecific antibodies generated through use of the Company's Azymetric platform toward certain exclusive therapeutic targets. Both companies will collaborate to advance the therapeutic platforms, with Merck working to progress the bispecific therapeutic antibody candidates through clinical development and commercialization. No joint development activities to advance the therapeutic platforms have occurred since inception and Merck no longer has a right to such joint activities. In 2013, Merck was also provided with a limited, non-exclusive license to EFECT, to be used together with the Azymetric platform for developing products.

On December 3, 2014, the Company and Merck jointly amended the agreement, including amending certain terms and exclusivities contained therein. Under the terms of the amended agreement, the Company receives funding for certain internal and external research costs incurred in the project. Additionally, the amendment removed a $2.0 million research milestone from the total milestones the Company would be eligible to receive over the life of the agreement. The new research funding terms were priced at market rate, and the Company concluded that the original agreement was not materially modified. Accordingly, the amendments did not impact the determination of units of accounting or the allocation of the arrangement consideration.

Over the life of the agreement, the Company is eligible to receive payments up to $190.75 million, comprised of a $1.25 million upfront payment, $3.5 million for research phase successes, up to $6.0 million for completion of IND-enabling studies, up to $66.0 million for development milestones and up to $114.0 million for commercial milestones. In addition, the Company is eligible to receive tiered royalty payments on sales of products. Merck will have exclusive worldwide commercialization rights to products derived from the agreement. The Company determined that the research, development and commercial milestones do not constitute milestones and will not be accounted for under the milestone method of revenue recognition. The events and conditions resulting in these payments do not meet the definition of a milestone because the achievement of these events solely depends on Merck's performance.

Upon the execution of the agreement, the Company received a one-time, non-refundable upfront payment of $1.25 million. The Company's substantive performance obligations under the agreement include providing the license and the transfer of relevant technical information and therapeutic platform to Merck. In accordance with ASC 605-25, the Company identified the following deliverables at the inception of the Merck agreement: (1) the research license, (2) the commercial license, (3) the transfer of the Company's platform technology (Azymetric) (4) research services and technical assistance in connection with the transfer of platform technology to Merck, and (5) research activities to be performed on behalf of Merck. The Company determined that the licenses did not have stand-alone value without the Company's platform technology and its technical assistance during the transfer of the technology. Accordingly, the deliverables (1) through (4) were considered as a single unit of accounting and the upfront payment of $1.25 million has been allocated to this unit of accounting. The upfront payment was recorded as deferred revenue and recognized into revenue on a straight-line basis from October 1, 2011 through June 30, 2012, the period over which the Company performed the procedures for transferring the Company's know-how and technology and related technical assistance during the transfer process. The research activities to be performed on behalf of Merck after the transfer of the technology are also determined to have stand-alone value as Merck or another third party could provide these services without the Company's assistance. The revenue from this deliverable is recognized upon performance of such activities at rates consistent with prevailing market rates.

The consideration otherwise allocable to delivered units is limited to the amount that is not contingent on the delivery of additional items or fulfillment of other performance conditions. Consequently, the arrangement consideration related to the research activities to be performed on behalf of Merck after the transfer of the technology was excluded from the allocation arrangement consideration because the consideration and performance are contingent upon Merck requesting performance of the services and these services are priced at an estimated fair value.

The upfront payment of $1.25 million was allocated to the research license deliverable, commercial license deliverable, technology platform deliverable and research services and technical assistance provided during the technology transfer deliverable using the relative estimated selling price method. The Company estimated the best estimate of selling price of the licenses and technology platform based on comparable license and collaboration arrangements. The best estimate of selling price for the other deliverables was estimated using internal estimates of cost to perform the specific services plus a normal profit margin for providing the services.

The agreement contains customary termination rights for Merck and the Company including the right for Merck to terminate the agreement in its sole discretion with advance notice to the Company. The agreement will terminate on the later of: (a) the expiry of the last patent covering a Merck licensed product excluding methods of making the product; or (b) the expiry of the royalty payment obligations by Merck. During the research term, the agreement will terminate if the antibodies do not achieve all the research milestones or if Merck elects to not further develop the antibodies after the research term.

The Company received and recorded non-refundable milestone payments from Merck in the amounts of $2.0 million and $1.5 million on September 20, 2012 and April 22, 2013, respectively. These milestone payments were received upon the achievement of certain development activities during the course of the research program and were recorded as revenue upon achievement of the milestone as the Company had no remaining performance obligations under the arrangement. No additional milestone payments or royalties have been received to date.

During the year ended December 31, 2017, the Company recorded $1 (2016: $832 and 2015: $857) in research support payments from Merck, under the terms of the amended agreement and on September 19, 2017, the Company disclosed that Merck had provided formal notification of their plans to advance a bispecific drug candidate into preclinical development.

Licensing and Collaboration Agreement with Eli Lilly and Company ("Lilly")

On December 17, 2013, the Company entered into a Licensing and Collaboration Agreement with Lilly to develop novel bispecific antibody therapeutics using the Company's proprietary Azymetric platform. The Company will apply its Azymetric platform in combination with Lilly's proprietary targets to create novel bispecific antibodies which Lilly will have the right to develop and commercialize worldwide.

Over the life of the agreement, the Company will receive funding for internal and external research costs incurred on behalf of Lilly on the project, and is eligible to receive potential milestone payments for each product, comprised of $1.0 million for research phase success, $2.0 million for IND submission, $8.0 million for development milestones and up to $40.0 million for commercial milestones. In addition, the Company is eligible to receive tiered royalty payments on the sale of products. Lilly will have exclusive worldwide commercialization rights to products derived from the collaboration. The Company determined that the research milestone is substantive, while development and commercial milestones do not constitute milestones and will not be accounted for under the milestone method of revenue recognition. The events and conditions resulting in these payments do not meet the definition of a milestone because the achievement of these events solely depends on Lilly's performance.

Upon the execution of the agreement, the Company received a one-time, non-refundable upfront payment of $1.0 million. In accordance with ASC 605-25, the Company identified the following deliverables at the inception of the Lilly agreement: (1) the research license, (2) the commercial license, (3) the transfer of the Company's platform technology (Azymetric), (4) the research services and technical assistance to be provided by the Company in connection with the transfer of intellectual property to Lilly, and (5) research activities to be performed on behalf of Lilly. The Company determined that the licenses did not have stand-alone value without the Company's platform technology and its technical assistance during the transfer of the technology. Accordingly, the deliverables (1) through (4) were considered as a single unit of accounting and the upfront payment of $1.0 million has been allocated to this unit of accounting. The payment was recorded as deferred revenue and recognized into revenue on a straight-line basis from December 31, 2013 to June 30, 2014, the period over which the Company performed the procedures for transferring the Company's know-how and technology and related technical assistance during the transfer process. The research activities to be performed on behalf of Lilly after the transfer of the technology are also determined to have stand-alone value as Lilly or another third party could provide these services without the Company's assistance. The revenue from this deliverable is recognized upon performance of such activities at rates consistent with prevailing market rates.

The consideration otherwise allocable to delivered units is limited to the amount that is not contingent on the delivery of additional items or fulfillment of other performance conditions. Consequently, the arrangement consideration related to the research activities to be performed on behalf of Lilly after the transfer of the technology was excluded from the allocation arrangement consideration because the consideration and performance are contingent upon Lilly requesting performance of the services and these services are priced at an estimated fair value.

The upfront payment of $1.0 million was allocated to the research license deliverable, commercial license deliverable, technology platform deliverable and research services and technical assistance provided during the technology transfer deliverable using the relative estimated selling price method. The Company estimated the best estimate of selling price of the licenses and technology platform based on comparable license and collaboration arrangements. The best estimate of selling price for the other deliverables was estimated using internal estimates of cost to perform the specific services plus a normal profit margin for providing the services.

The agreement contains customary termination rights for Lilly and the Company including the right for Lilly to terminate the agreement in its sole discretion with advance notice to us. The agreement will terminate on a product-by-product and country-by-country basis upon the later of the product being no longer covered by certain patents related to the Lilly licensed product, or 10 years after the first commercial sale of the Lilly licensed product in such a country.

On December 11, 2015, the Company recorded non-refundable substantive research milestone revenue from Lilly in the amount of $1.0 million upon the achievement of certain research activities during the course of the research program.

During the year ended December 31, 2017, the Company recorded $15 (2016: $46 and 2015: $263) in research support revenue from Lilly.

Licensing and Collaboration Agreement with Lilly

On October 22, 2014, the Company entered into a second Licensing and Collaboration Agreement with Lilly to develop novel bispecific antibody therapeutics using the Company's proprietary Azymetric platform. This agreement did not alter or amend the initial agreement entered into on December 17, 2013. Under the terms of this agreement, the Company will apply its Azymetric platform in combination with Lilly's proprietary targets to create novel bispecific antibodies which Lilly will develop and commercialize. In 2017 Lilly nominated a bispecific antibody from this agreement for preclinical development and discontinued the development of two other bispecific antibodies due to strategic portfolio realignment in those particular disease areas. Each of the two agreements with Lilly were negotiated independently and the deliverables covered by the respective contracts are unrelated to one another as they cover different product candidates. Accordingly, the second Licensing and Collaboration Agreement with Lilly has been accounted for as a new arrangement.

The Company is eligible to receive potential milestone payments totaling up to $125.0 million, comprised of up to $2.0 million for research success milestone, up to $8.0 million for IND submission milestones, up to $20.0 million for development milestones and up to $95.0 million for commercial milestones. In addition, the Company is eligible to receive tiered royalty payments on the sale of products. Lilly will have exclusive worldwide commercialization rights to products derived from the collaboration. No license, research, development and commercial milestones or royalty payments have been received to date. The Company determined that research milestones are substantive while development and commercial milestones do not constitute milestones and will not be accounted for under the milestone method of revenue recognition. The events and conditions resulting in these payments do not meet the definition of a milestone because the achievement of these events solely depends on Lilly's performance.

The agreement contains customary termination rights for Lilly and the Company with advance notice to the Company, in addition to (i) both Lilly and the Company have certain rights to terminate on a program by program basis due to scientific failure, (ii) Lilly can terminate the agreement on a target pair by target pair basis in its sole discretion after the payment of the initial license fee for such a target pair, (iii) Lilly can terminate the agreement or specific target pairs due to an incurable material breach by the Company, and under specific conditions, Lilly shall have certain rights to continue the research, development and commercialization of products with their license payment, milestone and royalty obligations reduced by 50% and (iv) Lilly shall have the right to terminate the agreement or specific target pairs in the event of the Company undergoing a change of control, while retaining certain rights. If the affected research programs have not completed specific research stages, Lilly's obligations to the license payments, milestones and royalties shall be reduced in a tiered fashion ranging from 25-75%

On December 1, 2016, the Company recorded a non-refundable fee of $2.0 million which was received upon achievement of a critical success criteria point milestone under the research plan.

No other research, development or commercial milestone payments or royalties have been received to date.

Licensing and Collaboration Agreement with Celgene Corporation & Celgene Alpine Investment Co. LLC ("Celgene")

On December 23, 2014, the Company entered into an agreement with Celgene to develop novel bispecific antibody therapeutics using the Company's proprietary Azymetric platform. The Company will apply its Azymetric platform in combination with Celgene's proprietary targets to create novel bispecific antibodies for which Celgene has an option to develop and commercialize a certain number of products ("Commercial License Option").

Over the life of the agreement, the Company is eligible to receive potential milestone payments totaling up to $164.0 million per each therapeutic candidate, comprised of a payment of $7.5 million upon Celgene exercising a Commercial License Option, up to $101.5 million for development milestones and up to $55.0 million for commercial milestones. In addition, the Company is eligible to receive tiered royalties calculated upon the global net sales of the resulting products. Celgene will have exclusive worldwide commercialization rights to products derived from the agreement if Celgene elects to exercise a Commercial License Option for each product. The Company determined that research, development and commercial milestones do not constitute milestones and will not be accounted for under the milestone method of revenue recognition. The events and conditions resulting in these payments do not meet the definition of a milestone because the achievement of these events solely depends on Celgene's performance.

Upon the execution of the Agreement, the Company received a one-time, non-refundable payment of $8.0 million. In accordance with ASC 605-25, the Company identified the following deliverables at the inception of the Celgene agreement: (1) the non-exclusive research license, (2) the transfer of the Company's platform technology (Azymetric) and relevant know-how, and (3) technical assistance if required by Celgene in connection with the transfer of technology. The Company determined that the research license did not have stand-alone value without the Company's platform technology and its technical assistance during the transfer of the technology. The Company concluded that, at the inception of the agreement, Celgene's option to obtain a Commercial License did not represent a deliverable because it is a substantive option and does not contain a significant or incremental discount.

The deliverables are considered a single unit of accounting and the upfront payment of $8.0 million has been allocated to this unit of accounting. The upfront payment was recognized as revenue ratably over the six-month period ended June 30, 2015, the period during which the Company transferred its technical know-how and technology to Celgene.

The agreement contains customary termination rights for Celgene and the Company including the right of Celgene to terminate the agreement in its entirety or on a product-by-product basis in its sole discretion with advance notice to the Company. The agreement will terminate on a product-by-product and country-by-country basis upon the later of the expiration of the last-expiring patent related to the Celgene licensed product, or 10 years after the first commercial sale of the Celgene licensed product in such a country. If Celgene does not exercise its option for the commercial license, the agreement will terminate on a product-by-product basis for which the option was not exercised.

No development or commercial milestone payments or royalties have been received to date.

Collaboration and License Agreement with GlaxoSmithKline Intellectual Property Development Ltd. ("GSK")

On December 1, 2015, the Company entered into a Collaboration and License Agreement with GSK for the research, development, and commercialization of novel Fc-engineered monoclonal and bispecific antibody therapeutics, which have been optimized for specific therapeutic effects. The Company and GSK will collaborate to further develop the Company's Effector Function Enhancement and Control Technology (EFECT) platform through the design, engineering, and testing of novel engineered Fc domains tailored to induce specific antibody-mediated immune responses.

At the conclusion of the research collaboration, both GSK and the Company will have the right to develop and commercialize monoclonal and bispecific antibody candidates that incorporate the Company's optimized immune-modulating Fc domains.

Under the terms of the agreement, GSK will have the right to develop a minimum of four products across multiple disease areas, and the Company will be eligible to receive research, development, and commercial milestones of up to $110.0 million for each product. In addition, the Company is eligible to receive tiered sales royalties. Under the terms of the agreement, each party is liable for their own internal and external research costs incurred in the project. Furthermore, the Company will have the right to develop up to four products with the intellectual property arising from the collaboration without any royalty or milestone payment to GSK. The Company determined that research, development and commercial milestones under the agreement do not constitute milestones and will not be accounted for under the milestone method of revenue recognition. The events and conditions resulting in these payments do not meet the definition of a milestone because the achievement of these events solely depends on GSK's performance.

The agreement contains customary termination rights for GSK and the Company including the right for GSK to terminate the agreement in its sole discretion with advance notice to us, after the research period has advanced beyond a specified stage, and allowing the parties to terminate the agreement by mutual agreement during the research period. If GSK elects not to advance any product into research and development, the agreement will terminate at the end of the research period. If GSK elects to advance one or more products incorporating intellectual property generated under the research period for further research and development, the agreement will terminate on a product-by-product and country-by-country basis upon the latter of the product being no longer covered by a patent related to the GSK licensed product, or 10 years after the first commercial sale of the GSK licensed product in such a country.

No development or commercial milestone payments or royalties have been received to date.

Platform Technology Transfer and License Agreement with GSK

On April 21, 2016, the Company entered into a Platform Technology Transfer and License Agreement with GSK for the research, development, and commercialization of novel bispecific antibodies enabled using the Company's Azymetric platform. Each of the two agreements with GSK were negotiated independently and the deliverables covered by the respective contracts utilize different therapeutic platforms and are unrelated to one another. Accordingly, the Platform Technology and License Agreement with GSK has been accounted for as a new arrangement.

Upon execution of the agreement, the Company received a technology access fee of $6.0 million on May 3, 2016. In accordance with ASC 605-25, the Company identified the following deliverables at the inception of the GSK agreement: (1) the non-exclusive research license, (2) commercial license (3) transfer of the Company's platform technology (Azymetric) and relevant know-how, (4) technical assistance if required by GSK in connection with the transfer of technology, and (5) the obligation to provide future technology improvement and updates, when and if available. The Company determined that the licenses did not have stand-alone value without the Company's platform technology and its technical assistance during the transfer of the technology. Accordingly, deliverables (1) through (4) were considered as a single unit of accounting and the technology access fee of $6.0 million has been allocated to this unit of accounting and has been recognized as revenue upon completion of the transfer of the Company's technology and technical know-how to GSK.

The upfront payment of $6.0 million was allocated to the research license deliverable, commercial license deliverable, technology platform deliverable and technical assistance provided during the technology transfer deliverable using the relative estimated selling price method. The Company estimated the best estimate of selling price of the licenses and technology platform based on comparable license and collaboration arrangements. The best estimate of selling price for the other deliverables was estimated using internal estimates of cost to perform the specific services plus a normal profit margin for providing the services. The Company concluded that the best estimate of selling price for the obligation to deliver future technology improvements and updates was a nominal amount, as the Company has no intention of performing and has made no commitment to perform or provide additional update work on the applicable technology platform. Accordingly, no arrangement consideration was allocated to this deliverable.

The Company is also eligible to receive up to $30.0 million in research milestone payments; up to $152.0 million in development milestone payments; and up to $720.0 million in commercial sales milestone payments. In addition, the Company is entitled to receive tiered royalties on potential sales. The Company determined that research, development and commercial milestones for the GSK agreement do not constitute milestones and will not be accounted for under the milestone method of revenue recognition. The events and conditions resulting in these payments do not meet the definition of a milestone because the achievement of these events solely depends on GSK's performance.

The agreement contains customary termination rights for GSK and the Company including the right for GSK to terminate the agreement in its sole discretion with advance notice to the Company. Termination provisions allow for GSK to terminate the agreement or specific antibody sequence pairs due to an incurable material breach by the Company, and under specific conditions, GSK shall have certain rights to continue the research, development, and commercialization of products with their license payment, milestone, and royalty obligations reduced by 50%.

No research, development or commercial milestone payments or royalties have been received to date.

Collaboration and Cross License Agreement with Daiichi Sankyo, Co., Ltd. ("Daiichi Sankyo")

On September 26, 2016, the Company entered into a Collaboration and Cross License Agreement with Daiichi Sankyo for the research, development, and commercialization of novel bispecific antibodies enabled using the Company's Azymetric and EFECT platforms. Additionally, the Company will license immuno-oncology antibodies from Daiichi Sankyo, with the right to research, develop and commercialize multiple products globally in exchange for royalties on product sales. Under the agreement, Daiichi Sankyo will have the option to develop and commercialize a single bispecific immuno-oncology therapeutic.

Upon execution of the agreement, the Company received a technology access fee of $2.0 million. In accordance with ASC 605-25, the Company identified the following deliverables at the inception of the Daiichi Sankyo agreement: (1) the research license, (2) the transfer of the Company's platform technologies (Azymetric and EFECT) and relevant know-how, and (3) research activities to be performed on behalf of Daiichi Sankyo. The Company concluded that the license did not have stand-alone value without the Company's platform technologies. Accordingly, the deliverables (1) and (2) were considered as a single unit of accounting and the technology access fee of $2.0 million was allocated to this unit of accounting and was recognized as revenue upon delivery of the licenses and transfer of the relevant technology. The research activities to be performed on behalf of Daiichi Sankyo after the transfer of the technology are also determined to have stand-alone value as Daiichi Sankyo or another third party could provide these services without the Company's assistance. The revenue to be received from Daiichi Sankyo from delivery of these services is recognized upon performance of such activities at rates consistent with prevailing market rates. The Company concluded that, at the inception of the agreement, Daiichi Sankyo's option to obtain a Commercial License did not represent a deliverable because it is a substantive option and did not contain a significant or incremental discount.

The consideration otherwise allocable to delivered units is limited to the amount that is not contingent on the delivery of additional items or fulfillment of other performance conditions. Consequently, the arrangement consideration related to the research activities to be performed on behalf of Daiichi Sankyo after the transfer of the technology was excluded from the allocation arrangement consideration because the consideration and performance are contingent upon Daiichi Sankyo requesting performance of the services and these services are priced at an estimated fair value.

The upfront payment of $2.0 million was allocated to the research license deliverable and technology platform deliverable using the relative estimated selling price method. The Company estimated the best estimate of selling price of the licenses and technology platform based on comparable license and collaboration arrangements.

The Company is also eligible to receive up to $66.9 million in research and development milestone payments and commercial license option; and up to $80.0 million in commercial sales milestone payments. In addition, the Company is eligible to receive tiered royalties on potential product sales. The Company determined that research, development and commercial milestones do not constitute milestones and will not be accounted for under the milestone method of revenue recognition, except a research milestone for $1.0 million which is substantive. The events and conditions resulting in these payments do not meet the definition of a milestone because the achievement of these events solely depends on Daiichi Sankyo's performance.

The agreement contains customary termination rights for Daiichi Sankyo and the Company including the right for Daiichi Sankyo to terminate the rights to the Company's therapeutic platforms in its sole discretion with advance notice to the Company and for the Company to terminate the Company's rights to Daiichi Sankyo's antibodies with advance notice to Daiichi Sankyo. The agreement shall terminate, with respect to Daiichi Sankyo's license, if Daiichi Sankyo fails to exercise its option or, on a product-by-product basis, until expiration of Daiichi Sankyo's royalty obligations.

On June 26, 2017, the Company recorded non-refundable substantive milestone revenue from Daiichi Sankyo in the amount of $1.0 million upon the achievement of a research milestone.

During the year ended December 31, 2017, the Company recorded $700 in research support revenue from Daiichi Sankyo (2016: $131).

Collaboration and License Agreement with Janssen Biotech, Inc. ("Janssen")

On November 13, 2017, the Company entered into a Collaboration and License Agreement with Janssen to research, develop and commercialize up to six bispecific antibodies generated through the use of the Azymetric and EFECT platforms. Under the terms of the agreement, we granted Janssen a worldwide, royalty-bearing, antibody sequence pair-specific exclusive license to research, develop and commercialize certain products. Janssen also has the option to develop two additional bispecific antibodies under this agreement subject to a future option payment. Under the agreement, Janssen will be solely responsible for the research, development, manufacturing and commercialization of the products.

Upon execution of the agreement, the Company received a non-refundable upfront fee of $50.0 million. In accordance with ASC 605-25, the Company identified the following deliverables at the inception of the Janssen agreement: (1) the research and commercial license, (2) the transfer of the Company's platform technologies (Azymetric and EFECT) and relevant know-how. The Company concluded that the licenses did not have stand-alone value without the Company's platform technologies. Accordingly, the deliverables (1) and (2) were considered as a single unit of accounting and the upfront fee of $50.0 million was allocated to this unit of accounting and was recognized as revenue upon delivery of the licenses and transfer of the relevant technology. The Company concluded that, at the inception of the agreement, Janssen's option to obtain two additional bispecific antibodies did not represent a deliverable because it is a substantive option and did not contain a significant or incremental discount.

The Company is also eligible to receive up to $282.0 million in development milestone payments and up to $1,119.0 million in commercial milestone payments. In addition, Company is eligible to receive tiered royalties in the mid-single digits on product sales, with the royalty term being, on a product-by-product and country-by-country basis, either (i) for as long as there is Zymeworks platform patent coverage on products, or (ii) for 10 years, beginning from the first commercial sale, whichever period is longer. If there is no Zymeworks patent coverage on products, royalty rates may be potentially reduced. Janssen has the right, prior to the first dosing of a patient in a Phase 3 clinical trial for a product, to buy down the royalty relating to such product by one percentage point with a payment of $10.0 million. The Company determined that development and commercial milestones do not constitute milestones and will not be accounted for under the milestone method of revenue recognition. The events and conditions resulting in these payments do not meet the definition of a milestone because the achievement of these events solely depends on Janssen's performance.

The agreement contains customary termination rights for Janssen and the Company including the right for Janssen to terminate the agreement in its sole discretion with advance notice to the Company. The agreement will terminate, on a product-by-product basis on the expiry of the royalty term for the product. Furthermore, if Janssen does not designate an antibody sequence pair during the research program term, the agreement will also terminate.

13. Financial Instruments

The Company evaluates financial assets and liabilities subject to fair value measurements on a recurring basis to determine the appropriate level at which to classify them each reporting period. This determination requires the Company to make subjective judgments as to the significance of inputs used in determining fair value and where such inputs lie within the fair value hierarchy. The fair market values of the financial instruments included in the financial statements, which include cash and cash equivalents, short-term investments, accounts receivable, accounts payable and accrued liabilities, approximate their carrying values at December 31, 2017 and 2016, due to their short-term maturities. See note 2 for a summary of the fair value balances.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to a concentration of credit risk consist primarily of cash and cash equivalents, short-term investments and accounts receivable. Cash and cash equivalents and short-term investments are invested in accordance with the Company's Treasury Policy with the primary objective being the preservation of capital and maintenance of liquidity. The Treasury Policy includes guidelines on the quality of financial instruments and defines allowable investments that the Company believes minimizes the exposure to concentration of credit risk. The Company limits its exposure to credit loss by placing its cash and cash equivalents and short-term investments with high credit quality financial institutions.

The Company does not currently maintain a provision for bad debts on accounts receivable. The maximum exposure to credit risk for accounts receivable at the reporting date was $0.2 million (2016: $2.7 million) and all account receivables are due within a year.

Liquidity Risk

Liquidity risk is the risk that the Company will encounter difficulty in meeting the obligations associated with its financial liabilities that are settled by delivering cash or another financial asset. The Company's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due. The ability to do this relies on the Company collecting its trade receivables in a timely manner, by maintaining sufficient cash and cash equivalents and securing additional financing as needed.

The Company's financial obligations include accounts payable and accrued liabilities which generally fall due within 45 days and the Company's current portion of capital lease obligations which fall due within the next 12 months.

Foreign Currency Risk

The Company undertakes certain transactions in currencies other than U.S. dollars and as such is subject to risk due to fluctuations in exchange rates. The Company does not use derivative instruments to hedge exposure to foreign exchange rate risk due to the low volume of transactions denominated in foreign currencies. Non-U.S. dollar denominated payables are paid at the converted rate as due.

The operating results and financial position of the Company are reported in U.S. dollars in the Company's financial statements. The fluctuation of the U.S. dollar in relation to the Canadian dollar and other foreign currencies will consequently have an impact upon the Company's loss and may also affect the value of the Company's assets and the amount of shareholders' equity.

14. Income Taxes

a. Income tax expense (recovery) varies from the amounts that would be computed by applying the expected income tax rate of 26% to loss before income taxes as shown in the following tables:

	Year Ended December 31,		
	2017	2016	2015
Computed taxes at Canadian tax rate (26%)	$ (2,587)	$ (10,070)	$ (4,975)
Non-deductible expenses	259	1,343	368
Difference between domestic and foreign tax rate	(11)	95	11
Effect of change in tax rates	(860)	—	—
Adjustments to prior year	(313)	439	(2)
Change in valuation allowance	8,510	3,948	6,098
Share issuance costs in equity	(2,547)	158	—
Other, including changes due to SR&ED	(2,007)	(988)	(1,466)
Income tax expense / (recovery)	$ 444	$ (5,075)	$ 34

	Year Ended December 31,		
	2017	2016	2015
Current income tax expense	$ 429	$ 430	$ 18
Deferred income tax expense / (recovery)	15	(5,505)	16
Income tax expense / (recovery)	$ 444	$ (5,075)	$ 34

Current income tax expense for the years ended December 31, 2017, 2016 and 2015 arose from the operations of Zymeworks Biopharmaceuticals Inc., the Company's wholly owned subsidiary in the United States, and from the withholding taxes paid by the Company abroad in 2017 and 2016.

b. Deferred income tax assets and liabilities result from the temporary differences between the amounts of assets and liabilities recognized for financial statement and income tax purposes. The significant components of the deferred income tax assets and liabilities are as follows:

	December 31, 2017	December 31, 2016
Deferred tax assets:		
Non-capital losses carried forward	$ 11,719	$ 12,360
Share issue costs	2,571	580
Property and equipment	956	359
Research and development deductions and credits	17,267	11,929
Contingent consideration	127	—
Other	136	112
	$ 32,776	$ 25,340
Deferred tax liabilities:		
Property and equipment	(70)	(30)
IPR&D	(4,619)	(5,019)
Long term debt	—	(699)
	$ (4,689)	$ (5,748)
	28,087	19,592
Less: valuation allowance	(28,020)	(19,511)
Net deferred tax (liabilities) / assets	$ 67	$ 81

The realization of deferred income tax assets is dependent upon the generation of sufficient taxable income during future periods in which the temporary differences are expected to reverse. The valuation allowance is reviewed on a quarterly basis and if the assessment of the “more likely than not” criteria changes, the valuation allowance is adjusted accordingly. Following the Company’s amalgamation with Zymeworks Biochemistry Inc. on January 1, 2017, deferred income tax assets and liabilities have been presented on a net basis on the consolidated balance sheet.

c. At December 31, 2017, the Company has net operating losses carried forward for tax purposes in Canada, which are available to reduce taxable income of future years of approximately $43.4 million (December 31, 2016—$47.5 million) expiring commencing 2035 through 2037.

At December 31, 2017, the Company also has unclaimed tax deductions for scientific research and experimental development expenditures of approximately $43.7 million (2016: $33.0 million), with no expiry. At December 31, 2017, the Company has approximately $7.0 million (2016: $4.3 million) of investment tax credits available to offset Canadian federal and provincial taxes payable expiring commencing in 2019 through 2037.

d. The investment tax credits and non-capital losses and net operating losses for income tax purposes expire as follows:

Expiry date	Investment tax credits	Non-capital losses
2021	$ 86	$ —
2022	158	—
2023	94	—
2024	—	—
2025	309	—
2026	247	—
2027	803	—
2028	—	—
2029	—	—
2030	4	—
2031	133	—
2032	489	—
2033	557	—
2034	381	—
2035	1,068	6,194
2036	862	24,887
2037	1,786	12,322
	$ 6,977	$ 43,403

The benefit of an uncertain tax position that is more likely than not of being sustained upon audit by the relevant taxing authority must be recognized at the largest amount that is more likely than not to be sustained. No portion of the benefit of an uncertain tax position may be recognized if the position has less than a 50% likelihood of being sustained. The Company currently does not have any unrecognized tax benefits of uncertain tax positions. The Company does not expect any significant increases to their unrecognized tax benefits within twelve months of the reporting date.

The Company currently files income tax returns in Canada and the United States, the jurisdictions in which the Company believes that it is subject to tax. Further, while the statute of limitations in each jurisdiction where an income tax return has been filed generally limits the examination period, as a result of loss carry-forwards, the limitation period for examination generally does not expire until several years after the loss carry-forwards are utilized. Other than routine audits by tax authorities for tax credits and tax refunds that the Company has claimed, Management is not aware of any other material income tax examination currently in progress by any taxing jurisdiction. Tax years ranging from 2006 to 2017 remain subject to Canadian income tax examinations.

U.S. Tax Reform

On December 22, 2017, the Tax Cuts and Jobs Act of 2017 (the “Act”) was signed into law making significant changes to the Internal Revenue Code. Changes include, but are not limited to, a corporate tax rate decrease from 35% to 21% effective for tax years beginning after December 31, 2017 and the transition of U.S international taxation from a worldwide tax system to a territorial system.

The Company has calculated its best estimate of the impact of the Act in its year end income tax provision in accordance with its understanding of the Act and guidance available as of the date of this filing and as a result has recorded $41 as a reduction in deferred income tax recovery in the fourth quarter of 2017, the period in which the legislation was enacted. The provisional amount related to the remeasurement of certain deferred tax assets and liabilities based on the rates at which they are expected to reverse in the future was $41.

On December 22, 2017, Staff Accounting Bulletin No. 118 ("SAB 118") was issued to address the application of US GAAP in situations when a registrant does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the Act. In accordance with SAB 118, the Company has determined that the $41 reduction in deferred income tax recovery recorded in connection with the remeasurement of certain deferred tax assets was a provisional amount and a reasonable estimate at December 31, 2017.

15. Commitments and Contingencies

Lease Commitments

The Company leases office premises in Vancouver, British Columbia and Seattle, Washington that expire in August 2021 and February 2022, respectively. The Company has also entered into a lease for laboratory space in Vancouver, British Columbia that commenced in September 2016 and will expire in August 2021. The leases contain rent escalation clauses. The Company also leases office equipment under capital lease agreements. Future minimum lease payments under the non-cancellable operating leases and capital leases at December 31, 2017 are as follows:

	Payments due by period					
	Less Than 1 Year	1 to 2 Years	2 to 3 Years	3 to 4 Years	5 Years	Total
	(dollars in thousands)					
Capital lease obligations	$ 17	$ 20	$ 26	$ 10	$ —	$ 73
Operating lease obligations	1,967	1,982	1,993	1,510	87	7,539
Total contractual obligations	$ 1,984	$ 2,002	$ 2,019	$ 1,520	$ 87	$ 7,612

Other Commitments

The Company has entered into research collaboration agreements with strategic partners, in the ordinary course of operations, that may include contractual milestone payments related to the achievement of pre-specified research, development, regulatory and commercialization events and indemnification provisions, which are common in such agreements. Pursuant to the agreements, the Company is obligated to make research and development and regulatory milestone payments upon the occurrence of certain events and royalty payments based on net sales. The maximum amount of potential future indemnification is unlimited; however, the Company currently holds commercial and product liability insurance. This insurance limits the Company's liability and may enable it to recover a portion of any future amounts paid. Historically, the Company has not made any indemnification payments under such agreements and the Company believes that the fair value of these indemnification obligations is minimal. Accordingly, the Company has not recognized any liabilities relating to these obligations for any period presented.

In August 2016, the Company entered into a license agreement with Innovative Targeting Solutions Inc., or ITS, to use ITS' protein engineering technology for the development and commercialization of antibody and protein therapeutics. Pursuant to the agreement, the Company agreed to pay an aggregate of $12.0 million in annual licensing fees to ITS over a five-year period. The licensing fee for the first year was $1.0 million, which has been recorded in intangible assets and is being amortized over a twelve-month period. The Company may also be required to make payments to ITS upon the achievement of certain development and commercial milestones, as well as royalty payments on net sales.

In connection with the Kairos acquisition, the Company may be required to make future payments to CVI upon the direct achievement of certain development milestones for products incorporating certain Kairos intellectual property, as well as royalty payments on the net sales of such products. For out-licensed products and technologies incorporating certain Kairos intellectual property, the Company may be required to pay CVI a mid-single digit percentage of the future revenue as a result of a revenue sharing agreement. As of December 31, 2017, the contingent consideration had an estimated fair value of approximately $470, which has been recorded within Other long-term liabilities (note 8) (2016 — $nil). The contingent consideration was calculated using a probability weighted assessment of the likelihood the milestones would be met, a probability adjusted discount rate that reflects the stage of the development and time to complete the development. Contingent consideration is a financial liability and measured at its fair value at each reporting period, with any changes in fair value from the previous reporting period recorded in the statement of loss and comprehensive loss.

Contingencies

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

16. Related Party Transactions

CTI is considered a related party under ASC 850. On April 18, 2017, CTI exercised its warrants to purchase 117,320 common shares of the Company at a price of C$11.60 for proceeds of $1,018 (C$1,361) (note 9.b).

Lilly was considered a related party under ASC 850. Total revenue recognized from the two Lilly agreements for the years ended December 31, 2017, 2016 and 2015 were $15, $2,046 and $1,288, respectively (note 12). The amount due from Lilly under these agreements were $nil and $2,046 as of December 31, 2017 and 2016, respectively.

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

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

As of the period covered by this Annual Report on Form 10-K, our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, evaluated the design and operating effectiveness of our disclosure controls and procedures in accordance with the provisions of Section 404 and NI 52-109. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate, to allow timely decisions regarding required disclosure.

The term "disclosure controls and procedures," as defined in Part 1, Subsection 1.1 of NI 52-109, means controls and other procedures of an issuer that are designed to provide reasonable assurance that information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in the securities legislation. Such controls and procedures include controls and procedures designed to ensure that information required to be disclosed by an issuer in its annual filings, interim filings or other reports filed or submitted under securities legislation is accumulated and communicated to the issuer's management, including its certifying officers, as appropriate, to allow timely decisions regarding required disclosure.

Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on our evaluation of our disclosure controls and procedures as of December 31, 2017, our Chief Executive Officer and our Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were, in design and operation, effective at the reasonable assurance level.

Management's Annual Report on Internal Control over Financial Reporting

Pursuant to Section 404 and NI 52-109, our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, is responsible for establishing and maintaining adequate internal control over our financial reporting.

The effectiveness of any system of internal control over financial reporting, including ours, is subject to inherent limitations, including the exercise of judgment in designing, implementing, operating, and evaluating the controls and procedures, and the inability to eliminate misconduct completely. Accordingly, any system of internal control over financial reporting, including ours, no matter how well designed and operated, can only provide reasonable, not absolute, assurance. 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. Due to the transition period for newly public companies, established by the SEC's rules, we are not required to include a report of management's assessment regarding internal control over financial reporting in this Annual Report on Form 10-K. However, management has assessed the effectiveness of our internal control over financial reporting as of December 31, 2017 pursuant to the requirements under NI 52-109. In making its assessment, management has adopted the 2013 COSO Framework to evaluate the effectiveness of our internal control over financial reporting. Based on this assessment, management has concluded that our system of internal control over financial reporting was effective as of December 31, 2017.

We have elected to take advantage of certain exceptions from reporting requirements that are available to emerging growth companies under the JOBS Act and therefore we are not required to deliver an auditor's attestation report on the effectiveness of our internal control over financial reporting pursuant to Section 404 until after the date we are no longer an emerging growth company. While our management did perform an evaluation of the design and operating effectiveness of our internal control over financial reporting in accordance with the provisions of NI 52-109, this Annual Report on Form 10-K does not include an attestation report from our registered public accounting firm due to the transition period established under the JOBS Act for emerging growth companies.

Changes in Internal Control Over Financial Reporting

In fiscal 2015 and fiscal 2016, we were a private company with limited accounting personnel and other resources with which to address our internal control over financial reporting.

In connection with the preparation and audits of our financial statements as of and for the years ended December 31, 2015 and 2016, material weaknesses (as defined under the Exchange Act and by the auditing standards of the PCAOB) were identified in our internal control over financial reporting. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual financial statements will not be prevented or detected on a timely basis. The identified material weaknesses arose from a lack of resources in our finance function that resulted in: (a) errors in the calculation of Scientific Research and Experimental Development, or SR&ED, credits and SR&ED receivables for the year ended December 31, 2015; (b) errors in the classification of certain legal expenses related to our intellectual property, for the year ended December 31, 2015; and (c) errors in classification of stock options, determination of volatility rates used in the Black-Scholes model, determination of the appropriate marketability discount in a valuation and identification of related parties, for the year ended December 31, 2016, each of which resulted in post-closing audit adjustments.

We have taken measures to remediate the internal control deficiencies identified as a result of the 2015 and 2016 audits by taking immediate corrective action in processing the accounting adjustments identified by our external auditors in our financial statements for 2015 and 2016. In addition, during the second and third quarters of 2017, we engaged the services of external specialists to assist us in redesigning and implementing our internal controls over the identification and assessment of complex accounting and tax transactions. Furthermore, we recruited additional personnel to our finance team to supplement our US GAAP knowledge. As of December 31, 2017, we believe we have fully remediated the material weakness resulting from a lack of resources in our finance function, as described above.

Other than the measures described above to remediate the 2015 and 2016 material weakness, there were no other changes in our internal control over financial reporting that occurred during our fourth fiscal quarter ended December 31, 2017 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Executive Officers and Directors

The following table provides information with respect to our directors and executive officers as of the date of this Annual Report on Form 10-K. The address for our directors and executive officers is c/o Zymeworks Inc., 1385 West 8th Avenue, Suite 540, Vancouver, British Columbia, Canada V6H 3V9.

Name	Residence	Age	Position(s)
Executive Officers			
Ali Tehrani, Ph.D.	British Columbia, Canada	45	President and Chief Executive Officer and Director
Neil Klompas, CPA, CA	British Columbia, Canada	46	Chief Financial Officer
Diana Hausman, M.D.	Washington, USA	54	Chief Medical Officer
Jennifer Kaufman-Shaw, Ph.D., LL.B.	British Columbia, Canada	68	Vice President, Intellectual Property
Wajida Leclerc	British Columbia, Canada	58	Vice President, Human Resources
Surjit Dixit, Ph.D.	British Columbia, Canada	45	Vice President, Technology
John Babcook	British Columbia, Canada	54	Senior Vice President, Discovery Research
Directors			
Nick Bedford[1][3]	British Columbia, Canada	58	Chair of the Board and Governance & Nominating Committee
Kenneth Hillan, M.B. Ch.B.[2][3]	California, USA	57	Director
Hollings Renton, MBA[1][2]	California, USA	71	Director, Chair of the Compensation Committee
Natalie Sacks, M.D. [3]	California, USA	53	Director
Ali Tehrani, Ph.D.	British Columbia, Canada	45	President and Chief Executive Officer and Director
Lota Zoth, CPA[1][2]	Texas, USA	58	Director, Chair of the Audit Committee

(1) Member of the Audit Committee
(2) Member of the Compensation Committee
(3) Member of the Nominating and Corporate Governance Committee

Ali Tehrani

Dr. Tehrani is one of our co-founders and currently serves as our President and Chief Executive Officer. Dr. Tehrani has served as a member of our board of directors since the Company's inception in September 2003. He has been an integral part of many of our corporate achievements including raising seed and angel financing and overseeing our technical operations and patent filings. Dr. Tehrani holds both Bachelors and Masters of Science degrees in Biochemistry from the University of Massachusetts, and has a Doctoral degree in Microbiology and Immunology from the University of British Columbia. While completing his Ph.D. degree he co-founded the Student Biotechnology Network, for which he received the UBC Faculty of Science Achievement Award for Outstanding Leadership in 2002. Dr. Tehrani has served as a board director for the Student Biotechnology Network and LifeSciences British Columbia, on the MITACS Industrial Advisory Board, and on BIOTECanada's Industrial and Environmental Committee. Currently, he is a member of the board of directors of Creatus Biosciences Inc. and CQDM and a Council Member on British Columbia's Premier's Technology Council.

Neil Klompas

Mr. Klompas joined Zymeworks in March 2007 and currently serves as our Chief Financial Officer. Prior to joining Zymeworks, he worked with KPMG LLP in Canada and the United States, most recently (from 2005 to 2007) with KPMG's Pharmaceuticals, Biotechnology and Medical Device M&A Transaction Services practice in Princeton, New Jersey, where he advised on numerous transactions including mergers, acquisitions, divestitures and strategic alliances. Prior to that, from 2000 to 2005 Mr. Klompas worked with KPMG's Canadian Biotechnology and Pharmaceuticals practice in the fields of assurance, valuations and taxation. Mr. Klompas is a Chartered Professional Accountant and is a member of Chartered Professional Accountants of British Columbia. Mr. Klompas also holds a degree in Microbiology & Immunology from the University of British Columbia and serves on the faculty advisory board for Biotechnology and Chemistry for Camosun College, and as a Director for Ovensa Inc., a private biotechnology company.

Diana Hausman

Dr. Hausman has served as our Chief Medical Officer since June 2016. She is a board certified medical oncologist and brings more than 15 years of clinical drug development experience to our management team. Prior to joining Zymeworks, she was Chief Medical Officer at Oncothyreon Inc. (now Cascadian Therapeutics, Inc.) from January 2012 to April 2016, where she oversaw the clinical program for their lead Phase 2 targeted anti-HER2 cancer therapy. While there, Dr. Hausman also led planning for the clinical development of a therapeutic vaccine, and earlier served as the company's Vice President, Clinical Development from September 2009 to December 2011. She has also held positions at ZymoGenetics, Inc., Berlex, Inc. and Immunex Corporation, working across multiple indications, including oncology, hematology, hepatitis C and autoimmune disease. Dr. Hausman received her internal medicine training and specialty training in hematology and medical oncology at the University of Washington. She holds an M.D. degree from the University of Pennsylvania and an A.B. in biology from Princeton University.

Jennifer Kaufman-Shaw

Dr. Kaufman-Shaw joined Zymeworks in August 2014 and currently serves as our Vice President, Intellectual Property. Dr. Kaufman-Shaw brings with her over 20 years of intellectual property management, strategy and execution experience to the management team. Dr. Kaufman-Shaw is responsible for our intellectual property portfolio and global patent strategy, as well as supporting our therapeutics and platform licensing activities. Prior to joining Zymeworks, Dr. Kaufman-Shaw was a Co-Founder of ImStar Therapeutics Inc., a biotechnology company, and also served as its Vice President, Intellectual Property and Legal Affairs from its founding in May 2012 to July 2014. She also served as a Vice President at the biotechnology company Sirius Genomics Inc. (from August 2007 to May 2012), and held various senior roles at QLT Inc. (from July 1997 to July 2007) including, most recently, Vice President, Patent Counsel (from 2005 to 2007), where she was responsible for developing and executing intellectual property strategies. Dr. Kaufman-Shaw is admitted to both the Alberta and British Columbia Bars and holds a Bachelor of Laws (LL.B.) and a doctorate in Biochemistry from the University of Alberta. She is currently serving as a member of the board of directors of MRM Proteomics Inc., a proteomics services and kit provider.

Wajida Leclerc

Ms. Leclerc joined Zymeworks in April 2015 and currently serves as our Vice President, Human Resources. Ms. Leclerc is responsible for managing all aspects of Human Resources, including our growing demand for highly skilled science and technology professionals. Prior to joining Zymeworks, Ms. Leclerc served as Director, Human Resources at BC Lottery Corporation, a crown corporation of the Province of British Columbia, from September 2010 to July 2014, and was an independent HR consultant from July 2014 to April 2015. Ms. Leclerc also brings with her a wealth of experience in human resource management within the biotech/pharmaceuticals industry, having served from 2008 to 2010 as Senior Director, Human Resources at Xenon Pharmaceuticals Inc., a pharmaceuticals company, and from 1998 to 2008 as Senior Director, Human Resources at QLT, Inc., a biotechnology company. Ms. Leclerc holds a Bachelors degree in Liberal Arts and Business from Simon Fraser University.

Surjit Dixit

Dr. Dixit has held various roles at Zymeworks since joining the company in July 2007, and currently serves as our Vice President, Technology. Dr. Dixit is responsible for the implementation of novel algorithms and advancement of our proprietary ZymeCAD approach. Prior to joining Zymeworks, Dr. Dixit was the coordinator of Computational Molecular Biophysics at Wesleyan University, Connecticut from January 2005 to July 2007, where he was instrumental in the development of novel methods for management and mining of high throughput molecular dynamics simulation data. Dr. Dixit obtained his Ph.D. at the Indian Institute of Technology, New Delhi, researching methods for computing the binding and interaction energies in protein DNA complexes. Subsequently, from October 1999 to February 2001 he was a postdoctoral research associate at the Université Henri Poincaré, Nancy, France, working on the development and implementation of highly accurate methods for the prediction of binding energies in drug discovery research.

John Babcook

Mr. Babcook has served as our Senior Vice President, Discovery Research since March 2016 and is responsible for target, antibody and drug conjugate discovery and associated partnerships. For over 20 years, Mr. Babcook has made significant contributions to the international biopharmaceutical industry. Mr. Babcook co-founded ImmGenics Pharmaceuticals Inc. in November 1998, based on a novel antibody generation platform. ImmGenics which was acquired by Abgenix Inc. in 2000 and subsequently by Amgen, Inc. in 2006, where he led its Canadian research team from 2006 to 2010. Mr. Babcook also established the Biologics Division at the Centre for Drug Research and Development where he served as Vice President, Biologics from August 2011 to March 2016, in addition to becoming the founding President and Chief Scientific Officer of Kairos in January 2015. While at Kairos, he was responsible for the development of its ADC therapeutics pipeline and formed multiple collaborations, including the strategic partnership and the merger with Zymeworks in March 2016. Mr. Babcook has participated in the development of more than 100 therapeutic antibody-based programs, several of which are now in the clinic, including two that have been approved by the FDA for treatment. Mr. Babcook is an Adjunct Professor in Molecular Biology and Biochemistry at Simon Fraser University, an Honorary Doctorate recipient from the British Columbia Institute of Technology and the recipient of the LifeSciences British Columbia's "Innovation and Achievement" Award.

Nick Bedford

Mr. Bedford has served as Chair of our board of directors since September 2004. He brings his expertise in business and finance to Zymeworks, after serving as Chair of the board of directors of ActiveState Corporation, a software corporation, from May 2002 up to the time of its acquisition by Sophos Group plc, an international security software and hardware company, in July 2003. Additionally, he held senior positions at UBS Warburg from 1982 to 2002, including the Frankfurt-based role as Head of German Equities. In this position he oversaw all sales and sales trading of equity products, and was responsible for the merger of UBS Germany's equity business with SBC Warburg in 1998. Prior to this he was with UBS' Securities division in Zurich, Tokyo, and London. Mr. Bedford has served on the board of Actenum Corporation since 2003, and previously served as a member of the board of Aegis Mobility from 2006 to January 2015. Mr. Bedford holds a B.Sc. in Civil Engineering from King's College, London University.

Kenneth Hillan

Dr. Hillan has served as a member of our board of directors since February 2017. Dr. Hillan has served as President and President, R&D at Achaogen, Inc., a public biopharmaceutical company, since January 2018, and on its board of directors since October 2011. Dr. Hillan served as Achaogen's Chief Executive Officer from October 2011 until December 2017. Prior to this, Dr. Hillan served as Achaogen's Chief Medical Officer from April 2011 to July 2014. Prior to joining Achaogen, Dr. Hillan worked at Genentech, Inc., a pharmaceutical company and a member of the Roche Group, from August 1994 to March 2011. Dr. Hillan held progressively senior roles at Genentech, most recently holding the position of Senior Vice President & Head of Roche Product Development, Asia Pacific from April 2010 to March 2011, and was responsible for numerous successful drug approvals and led the medical and scientific strategies for Genentech's immunology, tissue growth and repair drug portfolio. Dr. Hillan also served on the board of directors of Relypsa, Inc., a publicly traded biotechnology company that was acquired in September 2016 by Galencia AG for $1.5 billion, from June 2014 to September 2016. Dr. Hillan has an M.B. and a Ch.B. (Bachelor of Medicine and Surgery) degree from the Faculty of Medicine at the University of Glasgow in the United Kingdom. Dr. Hillan is a Fellow of the Royal College of Surgeons, and a Fellow of the Royal College of Pathologists.

Hollings Renton

Mr. Renton has served as a member of our board of directors since February 2017. Mr. Renton served as CEO and President of Onyx Pharmaceuticals, Inc. from March 1993 to March 2008 and was the chair of the board of directors of Onyx from June 2000 to March 2008. Onyx was acquired by Amgen Inc. in 2013 for $10.4 billion. Before joining Onyx, Mr. Renton was the President and Chief Operating Officer of Chiron Corporation, a pharmaceutical company, from December 1991 to December 1993. Mr. Renton served in a variety of executive roles at Cetus Corporation from 1983 including as President from 1990 to 1991, Chief Operating Officer from 1987 to 1990 and Chief Financial Officer from 1983 to 1987, prior to its acquisition by Chiron in 1991. Mr. Renton currently serves as chair of the board of directors of Portola Pharmaceuticals Inc., where he has been a board member since March 2010. He has also served on the board of directors of AnaptysBio, Inc. since June 2015. Previously, Mr. Renton served on the boards of three biopharmaceutical companies, KYTHERA Biopharmaceuticals, Inc. (December 2014 to October 2015), Affymax, Inc. (June 2009 to November 2014) and Rigel Pharmaceuticals, Inc. (January 2004 to March 2014). Mr. Renton also previously served on the board of Cepheid Inc., a molecular diagnostics company, from March 2000 to November 2016. Mr. Renton received his M.B.A. from the University of Michigan and his B.S. in Mathematics from Colorado State University.

Natalie Sacks

Dr. Sacks has served as a member of board of directors since August 2017. Dr. Sacks is a trained oncologist, and has served as the Chief Medical Officer of Aduro Biotech since September 2016. Prior to joining Aduro, Dr. Sacks served as an advisor on development strategy for multiple firms. Previously, she was Vice President of Clinical Development at Onyx Pharmaceuticals (acquired by Amgen) from 2011 to 2014, where she played a key role in the development and approval of Kyprolis®, an FDA-approved therapy for the treatment of relapsed or refractory multiple myeloma, and in business development strategy. Prior to that, she served as Vice President of Clinical Research for Exelixis where she directed the development of a portfolio of small molecules, with responsibilities ranging from IND filings to late-stage development, including late-stage development of Cometriq™, an FDA-approved therapy for the treatment of medullary thyroid cancer. Earlier in her career, Dr. Sacks served as Vice President of Clinical Development at Cell Genesys, a company focused on the development of cancer vaccines and engineered chimeric antigen receptor (CAR) T cells. Prior to her tenure in biotechnology, she served in a variety of research and analytical roles at academic institutions and companies, including Massachusetts General Hospital, Medical College of Pennsylvania, and ICI-Stuart Pharmaceuticals. In addition to her industry experience, Dr. Sacks held an active faculty appointment at the University of California, San Francisco, as an assistant clinical professor of medicine in the Division of Hematology/Oncology from 2003 to 2017. She received her M.D. from the University of Pennsylvania School of Medicine, her M.S. in Biostatistics from Harvard University School of Public Health and her B.A. in Mathematics from Bryn Mawr College.

Lota Zoth

Ms. Zoth has served as a member of our board of directors since November 2016. Ms. Zoth is a Certified Public Accountant and has served as Chief Financial Officer, Chief Accounting Officer and Controller for various publicly traded companies. Most recently, Ms. Zoth acted as Chief Financial Officer (from 2004 to 2007) and Controller and Chief Accounting Officer (from 2002 to 2004) for MedImmune, Inc., a publicly traded biotechnology company. Prior to that, Ms. Zoth acted as Senior Vice President, Controller and Chief Accounting Officer of PSINet, Inc., and as a financial executive in various roles at Sodexho Marriott, Marriott International, Pepsi-Cola and PepsiCo. Ms. Zoth began her career as an auditor with Ernst & Young. Ms. Zoth currently serves on the boards of the following biopharmaceutical companies: Aeras (non-profit), Orexigen Therapeutics, Inc. (Nasdaq), NewLink Genetics Corporation (Nasdaq), Circassia Pharmaceuticals, plc (LSE) and Spark Therapeutics, Inc. (Nasdaq). Previously, Ms. Zoth served on the boards of two other biopharmaceutical companies, Hyperion Therapeutics, Inc. (Nasdaq, February 2008 to May 2015) and Ikaria, Inc. (private, January 2008 to February 2014). Ms. Zoth is, or has served as, the audit committee chair at each of these companies.

Involvement in Certain Legal Proceedings

None of our executive officers or directors were involved in any legal proceedings during the past ten years that are material to an evaluation of the ability or integrity of any of our executive officers or directors.

Audit Committee

Our audit committee consists of Ms. Zoth, Mr. Renton and Mr. Bedford. Ms. Zoth serves as the chair of our audit committee and has been identified as an "audit committee financial expert" as that term is defined in the rules and regulations established by the SEC. The members of our audit committee are "financially literate" and "independent" within the meaning of NYSE rules and Canadian National Instrument 52-110 – Audit Committees, or NI 52-110. Ms. Zoth currently serves on the audit committees of four public companies: Circassia Pharmaceuticals PLC (London Stock Exchange), NewLink Genetics Corporation (Nasdaq), Orexigen Therapeutics, Inc. (Nasdaq) and Spark Therapeutics, Inc. (Nasdaq). Our board of directors has determined that Ms. Zoth's simultaneous service on those audit committees does not impair her ability to effectively serve on our audit committee. The principal purpose of our audit committee is to assist our board of directors in its oversight of:

- the quality and integrity of our financial statements and related information;
- the independence, qualifications, appointment and performance of our external auditor;
- our disclosure controls and procedures, internal control over financial reporting and management's responsibility for assessing and reporting on the effectiveness of such controls;
- our compliance with applicable legal and regulatory requirements; and
- our enterprise risk management processes.

Our board of directors has established a written charter setting forth the purpose, composition, authority and responsibility of our audit committee, consistent with the rules of the NYSE, the SEC and NI 52-110.

Our audit committee has access to all of our books, records, facilities and personnel and may request any information about us as it may deem appropriate. It also has the authority in its sole discretion and at our expense to retain and set the compensation of outside legal, accounting or other advisors as necessary to assist in the performance of its duties and responsibilities.

Both our independent auditors and internal financial personnel regularly meet privately with the audit committee and have unrestricted access to this committee.

Compensation Committee

Our compensation committee currently consists of Ms. Zoth, Mr. Renton and Dr. Hillan, and is chaired by Mr. Renton. For a description of the background and experience of each member of our compensation committee, see "Item 10 — Directors, Executive Officers and Corporate Governance — Executive Officers and Directors." The functions of this committee include:

- reviewing and making recommendations with respect to compensation policy and programs and determining and recommending option grants under our incentive stock plan;
- reviewing and recommending to our board of directors the manner in which executive compensation should be tied to corporate goals and objectives;
- annually reviewing and recommending for the approval of the board of directors the corporate goals and objectives applicable to the compensation of the Chief Executive Officer, evaluating at least annually the Chief Executive Officer's performance in light of those goals and objectives and determine and recommending for the approval of the board of directors the Chief Executive Officer's compensation level based on this evaluation;
- reviewing and approving the compensation of all executive officers other than the Chief Executive Officer;

- reviewing and making recommendations to our board of directors regarding the Company's equity-based plans;
- authority to oversee our non-executive equity-based plans, including the discharge of any duties imposed on the compensation committee by any of those plans; and
- reviewing director compensation for service on our board of directors and board committees at least once a year and recommending any changes to our board of directors.

Our board of directors has established a written charter setting forth the purpose, composition, authority and responsibility of our compensation committee consistent with the rules of the NYSE, the SEC and the guidance of the Canadian Securities Administrators.

Nominating and Corporate Governance Committee

Our nominating and corporate governance committee is comprised of Mr. Bedford, Dr. Sacks and Dr. Hillan. The nominating and corporate governance committee is chaired by Mr. Bedford.

Our board of directors has established a written charter setting forth the purpose, composition, authority and responsibility of our nominating and corporate governance committee. The nominating and corporate governance committee's purpose is to assist our board of directors in:

- identifying individuals qualified to become members of our board of directors;
- selecting or recommending that our board of directors select director nominees for the next annual meeting of shareholders and determining the composition of our board of directors and its committees;
- developing and overseeing a process to assess our board of directors, the Chair of the board, the committees of the board, the chairs of the committees, individual directors and management; and
- developing and implementing our corporate governance guidelines.

In identifying new candidates for our board of directors, the nominating and corporate governance committee considers what competencies and skills our board of directors, as a whole, should possess and assess what competencies and skills each existing director possesses, considering our board of directors as a group, and the personality and other qualities of each director, as these may ultimately determine the boardroom dynamic.

It is the responsibility of the nominating and corporate governance committee to regularly evaluate the overall efficiency of our board of directors and our Chair and all board committees and their chairs. As part of its mandate, the nominating and corporate governance committee conducts the process for the assessment of our board of directors, each committee and each director regarding his, her or its effectiveness and contribution, and reports evaluation results to our board of directors on a regular basis.

Code of Business Conduct and Ethics

We have adopted a Code of Business Conduct and Ethics, or Code of Conduct, that applies to all of our directors, officers and employees, including our Chief Executive Officer, Chief Financial Officer, controller or principal accounting officer, or other persons performing similar functions, which is a "code of ethics" as defined in Item 406 of Regulation S-K promulgated by the SEC and which is a "code" under Canadian National Instrument 58-101 – Disclosure of Corporate Governance Practises, or NI 58-101. The Code of Conduct sets out our fundamental values and standards of behavior that are expected from our directors, officers, employees, consultants and contractors with respect to all aspects of our business. The objective of the Code of Conduct is to provide guidelines to promote integrity and deter wrongdoing.

The full text of the Code of Conduct is posted on our website at www.zymeworks.com. The written Code of Conduct was filed with the Canadian securities regulatory authorities on SEDAR at www.sedar.com. Information contained on, or that can be accessed through, our website does not constitute a part of this Annual Report on Form 10-K and is not incorporated by reference herein. If we make any amendment to the Code of Conduct or grant any waivers, including any implicit waiver, from a provision of the Code of Conduct, we will disclose the nature of such amendment or waiver on our website to the extent required by the rules and regulations of the SEC and the Canadian Securities Administrators. Under Item 406(d) of Regulation S-K, if a waiver or amendment of the Code of Conduct applies to our principal executive officer, principal financial officer, principal accounting officer or controller and relates to standards promoting any of the values described in 406(b) of Regulation S-K, we will disclose such waiver or amendment on our website in accordance with the requirements of Item 406(d) of Regulation S-K.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act does not apply because we are a foreign private issuer under U.S. securities laws. Our officers and directors are required to file reports of equity ownership and changes of ownership with the Canadian Securities Administrators and do not file such reports under the Exchange Act.

Item 11. Executive Compensation

Compensation Discussion and Analysis

The following discussion and analysis of compensation arrangements of the following individuals for the year ended December 31, 2017 should be read together with the compensation tables and related disclosures set forth below. In accordance with the scaled disclosure requirements available to emerging growth companies under U.S. securities laws, we consider our named executive officers for 2017 to consist of our Chief Executive Officer and our two most highly compensated executive officers other than our Chief Executive Officer. The named executive officers who are the subject of this CD&A are:

- Ali Tehrani, Ph.D., President and Chief Executive Officer;
- Diana Hausman, M.D., Chief Medical Officer; and
- Neil Klompas, CPA, CA, Chief Financial Officer.

This discussion contains forward-looking statements that are based on our current plans, considerations, expectations and projections regarding future compensation programs. Actual compensation programs that we adopt in the future may differ materially from the various planned programs summarized in this discussion.

Role of Compensation Committee

The compensation committee currently consists of Ms. Zoth, Mr. Renton and Dr. Hillan, and is chaired by Mr. Renton. Under SEC and the NYSE rules, there are heightened independence standards for members of the compensation committee. All of our compensation committee members meet this heightened standard and are also independent for purposes of NI 58-101. For a description of the background and experience of each member of our compensation committee, see Item 10, “Directors, Executive Officers and Corporate Governance —Executive Officers and Directors.” The functions of this committee include:

- reviewing and making recommendations with respect to compensation policy and programs and determining and recommending option grants under our incentive stock plan;
- reviewing and recommending to our board of directors the manner in which executive compensation should be tied to corporate goals and objectives;
- annually reviewing and recommending for the approval of the board of directors the corporate goals and objectives applicable to the compensation of the company’s executives, evaluating at least annually the Chief Executive Officer’s performance in light of those goals and objectives and recommending for the approval of the board of directors the Chief Executive Officer’s compensation level based on this evaluation;

- reviewing and approving the compensation of all executive officers other than the Chief Executive Officer;
- reviewing and making recommendations to our board of directors regarding and the Company's equity-based plans;
- authority to oversee Zymeworks' non-executive equity-based plans, including the discharge of any duties imposed on the compensation committee by any of those plans; and
- reviewing director compensation for service on our board of directors and board committees at least once a year and recommending any changes to our board of directors.

Our board of directors has established a written charter that sets forth the purpose, composition, authority and responsibility of our compensation committee consistent with the rules of the NYSE, the SEC and the guidance of the Canadian Securities Administrators.

During fiscal 2017, the committee's work included the following:

- *Executive Compensation Review* – The committee reviewed compensation practices and policies with respect to our senior management team against Zymeworks' peer group of companies (North American biotechnology companies of a similar size and stage of development, as listed in Exhibit 99.1 to this Annual Report on Form 10-K), in order to allow us to place our compensation practices for these positions in a market context. This benchmarking included a review of base salary, total cash compensation and total direct compensation.
- *Executive Compensation* – The committee reviewed the corporate goals and objectives applicable to the compensation of the Company's senior management team, including the Chief Executive Officer, and evaluated the Chief Executive Officer's performance in light of those goals and objectives. Based on this review and evaluation, the committee recommended the fiscal 2017 compensation for the Company's senior management team, including the Chief Executive Officer, which recommendation was approved by the Board.
- *Long-Term Incentive Plan* – The committee reviewed the effectiveness of all outstanding incentive compensation plans and equity-based plans.

In reaching its decisions, the compensation committee may consider input from management and other factors that the committee considers appropriate. Decisions made by the committee are the responsibility of the committee and may reflect factors and considerations other than the information and/or recommendations provided by management.

Overview of Compensation Program

Compensation Philosophy

The goal of our compensation program is to attract, retain and motivate our employees and executives. The compensation committee is responsible for setting our executive compensation and reviewing and recommending, for the approval of the board of directors, the Company's annual corporate performance objectives. In considering executive compensation, the compensation committee strives to ensure that our total compensation is competitive within the industry in which we operate and supports our overall strategy and corporate objectives. The combination of base salary, annual incentives and long-term incentives that we provide our executive officers is designed to accomplish this. The compensation committee considers the implications of the risks associated with our compensation policies and practices. For additional details regarding the relevant education and experience of each member of our compensation committee, refer to Item 10, "Directors, Executive Officers and Corporate Governance — Executive Officers and Directors" above. Our named executive officers and directors are not permitted to purchase financial instruments, including, for greater certainty, prepaid variable forward contracts, equity swaps, collars, or units of exchange funds, that are designed to hedge or offset a decrease in market value of our equity securities granted as compensation or held, directly or indirectly, by the named executive officer or director.

Compensation Objectives

The objectives of our compensation program are to:

- Attract and retain highly qualified executive officers who have a history of proven success;
- Align the interests of executive officers with our shareholders' interests and with the execution of our business strategy;
- Motivate and reward our executive team through competitive pay practices and an appropriate mix of short-and long-term incentives;
- Evaluate executive performance on the basis of achievement of program development goals and key financial measurements which we believe closely correlate to long-term shareholder value; and
- Tie compensation awards directly to key financial measurements with evaluations based on achieving and overachieving predetermined objectives.

Components of Compensation Package

There are two major components of our executive compensation program:

- Base salary; and
- Variable-performance based compensation, consisting of:
  - annual cash bonuses based on a comparison of individual and corporate performance to pre-set goals and objectives; and
  - long-term incentives, consisting of annual grants of long-term stock options.

Determining Compensation

The compensation committee has retained Radford, part of Aon Hewitt (a business unit of Aon plc), as independent consultants to the compensation committee to conduct competitive reviews and assessments of Zymeworks' executive compensation program and recommend go-forward strategies. The compensation committee is involved in and approves the adoption of the following procedures during Radford's assessments:

- establishing the public company peer group used in the executive compensation assessment;
- reviewing the detailed assessment of Zymeworks' executive compensation program versus the market;
- reviewing and approving executive pay mix; and
- reviewing and approving equity ownership levels.

The compensation committee utilizes these strategies when contemplating future executive compensation matters.

In addition to the compensation advisory services provided to the directors and executive officers, in 2016 Radford was retained to review the salaries, bonuses and equity plan participation of employees below the executive level. In 2017, Radford was retained to review the Company's IPO equity plan provisions and equity plan participation of employees below the executive level post-IPO. The following table sets forth fees Zymeworks' paid to Radford in connection with its review and assessment of Zymeworks' executive compensation program and such other services.

	Executive Compensation Related Fees	Other Fees
2016	$ 110,324	$ 5,900
2017	53,624	16,900

The compensation committee has conducted an independence assessment of Radford in connection with retaining them and has concluded that Radford is independent.

Base Salary

Annual base salary is designed to provide a competitive fixed rate of pay recognizing different levels of responsibility and performance within Zymeworks. In determining whether to increase the base salary for a particular executive, our compensation committee in discussions with our Chief Executive Officer (for executive officers other than the Chief Executive Officer) considers a variety of factors, including performance, length of service and criticality of role.

Bonus

The annual cash incentive compensation represents pay at risk — it is only paid out if and to the extent certain goals and objectives are met. The annual cash incentive that each executive is eligible to receive is based on a pre-determined target percentage of his/her base salary. Our board of directors approves performance targets that are tied to the level of achievement of corporate goals. The compensation committee of our board of directors approves the weighting assigned to each goal. For 2017, the corporate and individual weighting was 100% corporate, 0% individual for all executive officers. Corporate goals are a combination of strategic and operational goals. In 2017, we had corporate goals tied to key clinical development goals and other business development and corporate finance milestones.

The compensation committee determines performance bonus payments based on the results achieved as compared to targets established for a particular fiscal year. Currently our board of directors approves bonus payments based on the compensation committee's recommendations.

Long-Term Incentives

Our stock option plan authorizes us to make grants to eligible recipients of stock options to attract, retain, motivate and reward qualified directors and employees and to enable and encourage such directors and employees to acquire common shares as long-term investments. We generally set the option exercise price and grant date fair market value based on the volume weighted average trading price of a common share in the capital of the Zymeworks on the TSX or the stock exchange where the majority of the trading volume and value of the shares has occurred for the five trading days immediately preceding the grant date, for the five preceding days in which the shares were traded. For most grants of stock options, 25% of the granted options will vest on the first anniversary of grant date (subject to continued service). On the last day of each month thereafter, a further 1/36 of the total number of remaining granted options will vest. Previous grants are taken into account when considering new option grants.

Summary Compensation Table

The following table presents the compensation awarded to, earned by or paid to each of our named executive officers for the years ended December 31, 2017 and December 31, 2016. We do not have compensation in the form of share-based awards (other than stock options), non-equity incentive plan compensation or non-qualified deferred compensation.

Name and Position	Year	Salary $ (1)	Bonus $ (1)(2)	Option Awards $ (3)	All Other Compensation $ (1)	Total $
Ali Tehrani, Ph.D.	2017	397,316	213,750	1,029,458	13,589(4)	1,654,113
President and Chief Executive Officer	2016	301,747	120,699	1,212,673	10,676(5)	1,645,795
Diana Hausman, M.D.	2017	400,000	133,000	485,869	22,432(6)	1,041,301
Chief Medical Officer	2016	233,333	70,000	190,307	10,669(7)	504,309
Neil Klompas, CPA, CA	2017	285,237	108,063	573,515	17,393(8)	984,208
Chief Financial Officer	2016	207,451	62,235	519,717	9,144(9)	798,547

(1) Effective as of January 1, 2017, salary for all named executive officers is determined in U.S. dollars. However, with the exception of our Chief Medical Officer, 2017 and 2016 cash compensation amounts for all named executive officers were paid in Canadian dollars and have been converted to U.S. dollars for the purposes of the table. For 2017 and 2016, the U.S. dollar per Canadian dollar exchange rates used for such conversions were 0.7701 and 0.7544, which were the average annual Bank of Canada exchange rates for 2017 and 2016, respectively.

(2) The amounts reflect performance bonuses paid in 2018 and 2017 for performance during 2017 and 2016, respectively, as discussed further above under "Executive Compensation—Overview of Compensation Program — Bonus."

(3) The amounts set forth in this column reflect the aggregate grant date fair value for option awards computed in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 718, Compensation—Stock Compensation. See the "Notes to Consolidated Financial Statements —Summary of Significant Accounting Policies—Share-based compensation." Certain option awards were granted with exercise prices denominated in Canadian dollars. The values of these awards have been converted to U.S. dollars based the U.S. dollar per Canadian dollar exchange rates, which were the average annual Bank of Canada exchange rates described in Note 1 above.

(4) Of the total amount for 2017, (i) $11,884 represents contributions to our registered retirement savings plan and (ii) $1,705 represents life insurance premiums through our group extended benefit plan.

(5) Of the total amount for 2016, (i) $9,052 represents contributions to our registered retirement savings plan and (ii) $1,624 represents life insurance premiums through our group extended benefit plan.

(6) Of the total amount for 2017, (i) $22,000 represents contributions to our 401(k) plan and (ii) $432 represents life insurance premiums through our group extended benefit plan.

(7) Of the total amount for 2016, (i) $10,417 represents contributions to our registered retirement savings plan and (ii) $252 represents life insurance premiums through our group extended benefit plan.

(8) Of the total amount for 2017, (i) $15,688 represents contributions to our registered retirement savings plan and (ii) $1,705 represents life insurance premiums through our group extended benefit plan.

(9) Of the total amount for 2016, (i) $7,520 represents contributions to our registered retirement savings plan and (ii) $1,624 represents life insurance premiums through our group extended benefit plan.

Outstanding Equity Awards at 2017 Fiscal Year End

The following table lists all outstanding equity awards granted in Canadian dollars under the Original Plan (described under "Executive Compensation – Employee Benefit Plans – Original Stock Option Plan") that are held by our named executive officers as of December 31, 2017.

Name	Grant Date (1)	Unexercised Option Awards # Exercisable	Unexercised Option Awards # Unexercisable	Option Exercise Price (C$)	Option Exercise Price (US$)(2)	Option Expiration Date
Ali Tehrani, Ph.D.	1/1/2012	58,660	–	5.37	4.28	12/31/2021
	1/1/2013	20,950	–	7.26	5.79	12/31/2022
	1/1/2014	20,950	–	11.60	9.25	12/31/2023
	1/1/2015	17,598	5,866	14.44	11.51	12/31/2024
	1/29/2016	146,650	146,650	12.10	9.65	1/28/2026
	2/3/2017	–	41,900	22.60	18.02	2/3/2027
Diana Hausman, M.D.	11/9/2016	7,203	17,499	20.74	16.53	11/8/2026
	2/3/2017	–	27,235	22.60	18.02	2/3/2027
Neil Klompas, CPA, CA	7/1/2007	6,704	–	3.58	2.85	6/30/2019
	7/1/2009	8,380	–	4.75	3.79	6/30/2019
	1/1/2012	8,380	–	5.37	4.28	12/31/2021
	1/1/2013	20,950	–	7.26	5.79	12/31/2022
	1/1/2014	20,950	–	11.60	9.25	12/31/2023
	1/1/2015	17,598	5,866	14.44	11.51	12/31/2024
	1/29/2016	62,850	62,850	12.10	9.65	1/28/2026
	2/3/2017	–	35,615	22.60	18.02	2/3/2027

(1) Options vest and become exercisable with respect to (i) 25% of the underlying shares one year after the grant date and (ii) the remainder of the underlying shares in 36 equal monthly installments following the first anniversary of the grant date.

(2) Canadian dollar amounts have been converted to U.S. dollars based on the historical Canadian to U.S. average daily rate of exchange as at December 31, 2017.

The following table lists all outstanding equity awards granted in U.S. dollars under the New Plan (described under "Executive Compensation – Employee Benefit Plans – New Stock Option Plan") that are held by our named executive officers as of December 31, 2017.

Name	Grant Date (1)	Unexercised Option Awards # Exercisable	Unexercised Option Awards # Unexercisable	Option Exercise Price (US$)	Option Expiration Date
Ali Tehrani, Ph.D.	6/12/2017	–	250,000	9.82	6/12/2027
Diana Hausman, M.D.	6/12/2017	–	85,000	9.82	6/12/2027
Neil Klompas, CPA, CA	6/12/2017	–	85,000	9.82	6/12/2027

(1) Options vest and become exercisable with respect to (i) 25% of the underlying shares one year after the grant date and (ii) the remainder of the underlying shares in 36 equal monthly installments following the first anniversary of the grant date.

Executive Employment Arrangements and Termination and Change in Control Benefits

On December 13, 2007, we entered into an employment agreement with Dr. Ali Tehrani setting forth the terms and conditions of his employment as our President and Chief Executive Officer, which provided for his initial base salary and which includes, among other things, provisions regarding confidentiality, ownership of developments, non-competition and non-solicitation, as well as eligibility for our incentive plans. This agreement was amended on January 1, 2014. On January 17, 2017, we entered into an amended and restated employment agreement with Dr. Tehrani that superseded and replaced the December 2007 agreement, as amended, and set forth the revised termination and change of control provisions described in detail below.

On January 25, 2007, we entered into an employment agreement with Mr. Neil Klompas, our current Chief Financial Officer, setting forth the terms and conditions of his employment as our Director of Finance & Operations, which provided for his initial base salary and initial equity award, and which includes, among other things, provisions regarding confidentiality, ownership of developments, non-competition and non-solicitation, as well as eligibility for our incentive plans. This agreement was amended on October 23, 2007 and January 1, 2014, increasing Mr. Klompas' vacation entitlement. On January 17, 2017, we entered into an amended and restated employment agreement with Mr. Klompas that superseded and replaced the January 2007 agreement, as amended, and set forth revised termination and change of control provisions described in detail below.

On June 1, 2016, we entered into an employment agreement with Dr. Diana Hausman setting forth the terms and conditions of her employment as our Chief Medical Officer, which provided for her initial base salary and initial equity award, and which includes, among other things, provisions regarding confidentiality, ownership of developments, non-competition and non-solicitation, as well as eligibility for our incentive plans. Dr. Hausman's employment agreement also specifies, in the case of termination of employment other than for cause, Dr. Hausman will be entitled to 12 months' notice, or payment in lieu of notice equal to 12 months of her base salary should termination occur within the first year of employment. Following the first year of employment, Dr. Hausman will be entitled to an additional one month's notice, or the equivalent base salary, for each additional completed year of service, up to a total maximum of 18 months. On January 18, 2017, we entered into an amended and restated employment agreement with Dr. Hausman that superseded and replaced the June 2016 agreement, and set forth a new change of control provision described in detail below.

On November 9, 2016, the compensation committee of the board of directors approved amendments to the employment agreements of our named executive officers. We executed amended and restated employment agreements with our named executive officers reflecting these amendments on January 17, 2017 and, for Dr. Hausman, on January 18, 2017. The amendments modify the not-for-cause severance provisions for all named executive officers other than our Chief Medical Officer, Dr. Hausman. Under the new not-for cause-termination severance formula, during the first three years of employment, these named executive officers are entitled to 12 months of written notice or payment in lieu of notice equal to 12 months of their base salary and continuation of benefits for 12 months. Commencing in the fourth year of employment, these named executive officers are entitled to an additional one month's notice, or the equivalent base salary and continuation of benefits, for each additional completed year of service, up to a total maximum of 18 months.

These amendments also contain severance provisions specific to change of control events. Under these amendments, if our Chief Executive Officer is terminated without cause within 12 months following a change of control, he shall receive severance equal to 24 months of his base salary, continuation of benefits for 24 months and full vesting acceleration of all unvested stock options or other equity grants made as at that date. If any other named executive officer is terminated without cause within 12 months following a change of control, he or she shall receive severance equal to 18 months of his or her base salary, continuation of benefits for 18 months and full vesting acceleration of all unvested stock options or other equity grants made as at that date.

The table below shows the estimated amounts of the termination payments and benefits that will be made to our named executive officers upon the termination of their employment under the terms of their current employment agreements (assuming termination took place on December 31, 2017).

Name and Principal Position	Event	Severance ($)[1]	Options ($)[2][3]	Other Payments ($)[2][4]	Total ($)
Dr. Ali Tehrani	Termination other than for cause	675,000	231,899	19,454	926,353
President and Chief Executive Officer	Termination following a change of control event (double trigger)	900,000	231,899	25,975	1,157,874
Dr. Diana Hausman	Termination other than for cause	400,000	–	–	400,000
Chief Medical Officer	Termination following a change of control event (double trigger)	600,000	–	13,095	613,095
Neil Klompas	Termination other than for cause	487,500	129,129	19,454	636,083
Chief Financial Officer	Termination following a change of control event (double trigger)	487,500	208,438	19,454	715,392

(1) Severance payments are calculated based on the executive's base salary, which, for all executive officers is paid in U.S. dollars, effective as of January 1, 2017.

(2) Canadian dollar amounts have been converted to U.S. dollars based on the historical Canadian to U.S. average daily rate of exchange as at December 31, 2017.

(3) The value of accelerated vesting of options above is calculated based on the closing price on the NYSE of $7.59 per share as of December 31, 2017.

(4) For Canadian executives, amounts shown in the "Other Payments" column relate to contributions to our group registered retirement savings plan, provincial health plan premium, and extended medical benefits premiums. For our Chief Medical Officer, these amounts relate to health benefits plan premiums. For all executive officers, with the exception of the Chief Medical Officer, these amounts are denominated in U.S. dollars but paid in Canadian dollars.

Director Compensation

The written charter of our compensation committee provides that the committee will review compensation for members of our board of directors on at least an annual basis, taking into account their responsibilities and time commitment and information regarding the compensation paid at peer companies. The compensation committee will make recommendations to our board of directors with respect to changes to our approach to director compensation as it considers appropriate.

The following table presents the compensation awarded to, earned by or paid to our directors (other than Dr. Tehrani, whose compensation is provide in the Summary Compensation Table above) for the year ended December 31, 2017. We do not have compensation in the form of share-based awards (other than stock options), non-equity incentive plan compensation or non-qualified deferred compensation.

Name	Fees earned or paid in cash ($)	Option awards ($) [6]	Total ($)
Nick Bedford	90,473	236,270	326,743
Kenneth Hillan [1]	38,500	218,004	256,504
Hollings Renton [1]	43,914	218,004	261,918
Natalie Sacks [2]	16,137	37,393	53,530
Lota Zoth	62,836	236,270	299,106
Kerry Blanchard [3]	nil	nil	nil
Donald Drakeman [4]	9,425	214,873	224,298
Noel Hall [5]	35,069	236,270	271,339
Dion Madsen [3]	nil	nil	nil
Shermaine Tilley [3]	nil	nil	nil

(1) Dr. Hillan and Mr. Renton joined the board of directors on February 3, 2017.

(2) Dr. Sacks joined the board of directors on August 2, 2017.
(3) Dr. Blanchard, Mr. Madsen and Dr. Tilley resigned as directors effective immediately prior to the consummation of our IPO on May 3, 2017. Their departures were on good terms.
(4) Dr. Drakeman resigned as a director effective February 3, 2017. His departure was on good terms and he continues to work with Zymeworks and our board of directors as a special advisor.
(5) Mr. Hall resigned as a director effective August 3, 2017. His departure was on good terms.
(6) Canadian dollar amounts have been converted to U.S. dollars based on the historical Canadian to U.S. average daily rate of exchange as at December 31, 2017.

Each member of our board of directors is also entitled to reimbursement for reasonable travel and other expenses incurred in connection with attending board meetings and meetings for any committee on which he or she serves. These amounts are not included in the table above.

Employee Benefit Plans

Our executive officers receive medical, dental, life insurance and other benefits generally made available to all of our employees.

Pension Benefits

We do not have any qualified or non-qualified defined benefit pension plans.

Non-qualified Deferred Compensation

We do not have any non-qualified defined contribution plans or other deferred compensation plans.

Registered Retirement Savings Plan

Our executives resident in Canada are eligible, along with all other employees resident in Canada, to participate in our registered retirement savings plan, or RRSP, matching program. Under this program, we match the amount contributed by each executive into a group RRSP plan, up to a pre-determined percentage of annual salary. Upon the formal approval of the compensation committee on November 9, 2016, we began matching executives' contributions to the group RRSP up to 5.5% of annual salary. Generally, company matching contributions will not exceed 50% of the maximum annual RRSP dollar limit as specified by the Canada Revenue Agency in any given year.

401(k) Plan

Zymeworks Biopharmaceuticals Inc. executives resident in the United States are eligible, along with all other U.S.-based employees, to participate in a 401(k) plan. Under this plan, Zymeworks Biopharmaceuticals Inc. matches the amount contributed by each executive into a 401(k) plan up to a predetermined percentage of annual salary. Upon the formal approval of the compensation committee on November 9, 2016, Zymeworks began matching executives' contributions to a 401(k) plan up to 5.5% of annual salary, with company matching contributions not to exceed the annual personal and Age 50 Catch Up contribution limit (if applicable) set by the Internal Revenue Service, or the IRS, in any given year.

Original Stock Option Plan

Our Original Stock Option Plan (Original Plan) was administered by our compensation committee and provided for the grant of incentive stock options within the meaning of Section 422 of the Internal Revenue Code of 1986, as amended, or the Code, non-statutory stock options, restricted stock and other stock-based awards. Our employees, officers, directors and consultants were eligible to receive awards under our Original Plan. Upon an acquisition of us, the exercisability of options or the vesting of restricted stock awards issued under the Original Plan will be accelerated. In addition, our board of directors will make appropriate provisions for the continuation of awards by us or substitution of awards by the surviving or acquiring entity.

As of December 31, 2017, under our Original Plan, there were options to purchase an aggregate of 2,027,782 common shares outstanding at a weighted-average exercise price of C$14.45 per share, (or $11.52 per share, as converted).

As of April 28, 2017, no further awards were issued under the Original Plan. However, all outstanding options granted under the Original Plan remain outstanding, subject to the terms of the Original Plan and the applicable grant documents, until such outstanding options are exercised or they terminate or expire by their terms. Any common shares subject to awards under our Original Plan that expire, terminate, or are otherwise surrendered, canceled, forfeited or repurchased without having been fully exercised, or resulting in any common shares being issued, will become available for issuance under the New Plan, up to a specified number of shares.

New Stock Option Plan

A new stock option plan, or the New Plan, was approved by our shareholders on April 10, 2017 and became effective on April 28, 2017. The New Plan allows for the grant of options to our (or our direct or indirect subsidiaries') directors, officers, employees and consultants. We may grant incentive stock options, or ISOs, within the meaning of Section 422 of the Code, to our employees (and employees of eligible affiliates) under the New Plan. The board of directors is responsible for administering the New Plan, and the compensation committee makes recommendations to the board of directors in respect of matters relating to the New Plan.

The board of directors, in its sole discretion, shall from time to time designate the directors, executive officers, employees or consultants to whom options shall be granted, the number of common shares to be covered by each option granted and the terms and conditions of such option.

The maximum number of common shares reserved for issuance, in the aggregate, under our New Plan does not exceed a rolling number equal to 17% of our issued and outstanding common shares (on a non-diluted basis) at the time of grant of options under the New Plan (and shall include the number of common shares that are reserved for issuance upon the exercise of stock options outstanding as of the effective time of the New Plan that were previously granted under the Original Plan). Following the expiry, cancellation or other termination of any options under the New Plan or the Original Plan, a number of common shares equal to the number of options or rights so expired, cancelled or terminated shall immediately and automatically become available for issuance in respect of options that may be subsequently granted under the New Plan. ISOs may be granted with respect to a maximum fixed amount equal to 20% of the common shares reserved for issuance under the New Plan at the effective time of the New Plan. All of the common shares covered by expired, cancelled or forfeited options granted under the New Plan and the Original Plan are available for grants under the New Plan, subject to any required approval by the TSX, and if our common shares are listed or posted for trading on any additional stock exchange, the stock exchange(s) where the common shares are listed or posted for trading. As of December 31, 2017, 872,525 options have been granted or awarded under the New Plan.

The number of common shares issuable to Insiders (as defined pursuant to the TSX Company Manual), at any time, under the New Plan, together with the aggregate number of common shares issuable to Insiders under any other share compensation arrangement, shall not exceed 10% of our total issued and outstanding share capital and the number of common shares issued to Insiders under the New Plan, together with the aggregate number of common shares issued to Insiders under any share compensation arrangement, within a one year period shall not exceed 10% of our total issued and outstanding share capital.

The board of directors has authority to determine the terms, including the limitations, restrictions, vesting period and conditions, if any, of option grants.

All options granted under the New Plan will have an exercise price determined and approved by the board of directors at the time of grant, which shall not be less than the market price of the common shares at such time. For purposes of the New Plan, the market price of the common shares shall generally be the volume weighted average trading price of the common shares on the TSX (or the stock exchange where the majority of trading volume and value of the common shares has occurred for the five trading days prior to the relevant date) for the five trading days ending on the last trading day before the day on which the option is granted. We may convert a market price denominated in Canadian currency into United States currency and vice versa and such converted amount shall be the market price.

An option shall be exercisable during a period established by the board of directors which shall commence on the date of the grant and shall terminate not later than ten years after the date of the granting of the option. The New Plan provides that the exercise period shall automatically be extended if the date on which it is scheduled to terminate shall fall during a black-out period. In such cases, the extended exercise period shall terminate on the tenth business day after the last day of the black-out period.

The New Plan also provides that appropriate adjustments, if any, will be made by the board of directors in connection with a reclassification, reorganization or other change of shares, consolidation, distribution, merger or amalgamation or similar corporate transaction, in order to maintain the optionees' economic rights in respect of their options in connection with such change in capitalization, including adjustments to the class(es) and maximum number of securities subject to the New Plan, adjustments to the class(es) and maximum number of securities that may be issued pursuant to the exercise of ISO, adjustments to the exercise price or the number of common shares to which an optionee is entitled upon exercise of options, or adjustments permitting the immediate exercise of any outstanding options that are not otherwise exercisable.

The following table describes the impact of certain events upon the rights of holders under the New Plan, including termination for cause (as determined by the board of directors, in its discretion), resignation, termination other than for cause, retirement, death or disability:

Event	Provisions
Termination for cause	Forfeiture of all vested and unvested options as of date of termination
Resignation	Forfeiture of all unvested options
	Earlier of the expiry date and 90 days after resignation to exercise vested options
Termination other than for cause	Forfeiture of all unvested options
	Earlier of the expiry date and 90 days after termination to exercise vested options
Retirement	Forfeiture of all unvested options
	Earlier of the expiry date and 90 days after retirement to exercise vested options
Death or disability	Forfeiture of all unvested options
	Earlier of the expiry date and one year after event to exercise vested options

If any of our non-executive directors cease to be a director for a reason other than the death or incapacity, all vested options as of the date of such event may be exercised until the earlier of the date that is one year from such event and the expiry date.

All options shall vest in accordance with the terms of the grant agreement. A participant's grant agreement or any other written agreement between a participant and us may provide that unvested options be subject to acceleration of vesting and exercisability in certain circumstances. The board of directors may at its discretion accelerate the vesting of any outstanding options notwithstanding the previously established vesting schedule, regardless of any adverse or potentially adverse tax consequences resulting from such acceleration or, subject to applicable regulatory provisions and shareholder approval, extend the expiration date of any option, provided that the period during which an option is exercisable does not exceed ten years from the date such option is granted. If the New Plan is terminated, the provisions of the plan with respect to outstanding options will continue in effect as long as any such option remains outstanding.

In the event of certain change of control transactions, the board of directors has the right to provide for the conversion or exchange of any outstanding options into or for options, rights or other securities in any entity participating in or resulting from a change of control, cash or other property. The board of directors may accelerate the vesting and/or the expiry date of any or all outstanding options to provide that such options are fully vested and conditionally exercisable upon (or prior to) the completion of the change of control, provided the period during which an option is exercisable does not exceed ten years from the date such option is granted.

The board of directors may, in its sole discretion, suspend or terminate the New Plan at any time, or from time to time, and may amend the New Plan or any option at any time without the consent of the optionees provided that such amendment shall (i) not adversely alter or impair any option previously granted except as permitted by the terms of the New Plan, (ii) be subject to applicable law and any regulatory approvals including, where required, the approval of the TSX, and if our common shares are listed or posted for trading on another stock exchange, the stock exchange(s) where the common shares are listed or posted for trading, and (iii) be subject to shareholder approval, where required by law, the requirements of the TSX, and if our common shares are listed or posted for trading on another stock exchange, the stock exchange(s) where the common shares are listed or posted for trading or the New Plan, provided however that shareholder approval shall not be required for the following amendments and our board of directors may make any changes which may include but are not limited to:

- amendments of a general housekeeping or clerical nature that, among others, clarify, correct or rectify any ambiguity, defective provision, error or omission in the New Plan;
- a change to the provisions of any option governing vesting, assignability and effect of termination of a participant’s employment contract or office;
- the addition of a form of financial assistance and any amendment to a financial assistance provision which is adopted;
- a change to advance the date on which any option may be exercised under the New Plan; and
- an amendment necessary to comply with applicable law or the requirements of the TSX or other regulatory body having authority over the Company, the New Plan, the participants or the shareholders.

For greater certainty, the board of directors shall be required to obtain shareholder approval to make the following amendments:

- any amendment which reduces the exercise price of any option after the options have been granted or any cancellation of an option and the substitution of that option by a new option with a reduced price, except in the case of an adjustment pursuant to a change in capitalization;
- any amendment which extends the expiry date of any option beyond the original expiry date, except in case of an extension due to a blackout period;
- any increase to the maximum number of common shares issuable from treasury under the New Plan and any other treasury-based share compensation plans, other than an adjustment pursuant to a change in capitalization;
- a change to the eligible participants of the New Plan;
- any amendment to the restrictions on common shares issuable to Insiders;
- any amendment to the restriction providing that no option shall be granted, and no common shares shall be issued or sold hereunder, where such grant, issue or sale would require registration of the New Plan or of common shares under the securities laws of any foreign jurisdiction (other than the United States), and any purported grant of any option or purported issue or sale of common shares under the New Plan in violation of such restriction shall be void; and

- any amendment to the amendment provisions of the New Plan.

Except as specifically provided in an option agreement approved by the board of directors, options granted under the New Plan are generally not transferable; however, an optionee may, with the prior approval of the board of directors, transfer options to (i) such optionee's family or retirement savings trust, or (ii) registered retirement savings plans or registered retirement income funds of which the optionee is and remains the annuitant.

We currently do not provide any financial assistance to participants under the New Plan.

Employee Stock Purchase Plan

The employee stock purchase plan, or ESPP, was approved by our shareholders on April 10, 2017 and was effective immediately prior to our IPO. Under the ESPP, eligible employees are able to acquire our common shares at a discount from the average market price of our common shares on the purchase date. The ESPP is intended to qualify as an "employee stock purchase plan" within the meaning of Section 423 of the Code for employees who are United States taxpayers. The following discussion is qualified in its entirety by the full text of the ESPP.

Unless otherwise determined by our board of directors, participation in the ESPP is open to our employees in Canada and the United States who are customarily employed for at least 20 hours per week. Participation in the ESPP is voluntary. Eligible employees are able to contribute up to 15% of their gross base earnings for purchases under the ESPP through regular payroll deductions. The maximum number of common shares issued to insiders within any six-month period, or issuable to insiders at any time, under the ESPP and all private placements cannot exceed 10% of the number of common shares issued and outstanding at that time. No employee is eligible for the grant of any purchase rights under the ESPP if immediately after such rights are granted, such employee has voting power over 5% or more of our outstanding common shares measured by vote or value under Section 424(d) of the Code. In addition, no employee may purchase shares under the ESPP at a rate in excess of US$25,000 worth of our common shares (determined on the grant date of the purchase right) for each year such purchase right is outstanding.

The ESPP is implemented through a series of offerings under which eligible employees are granted rights to purchase our common shares at the end of specified purchase periods. We currently expect to hold offerings consisting of a single six-month purchase period commencing on January 1 and July 1 of each calendar year, with a single purchase date at the end of the purchase period on June 30 and December 31 of each calendar year. However, our compensation committee may establish different offerings and purchase periods from time to time, which may have a duration of between three months to twenty-four months. Our first offering commenced on July 1, 2017 and ended on December 31, 2017. Common shares purchased under the ESPP are issued from treasury at a purchase price equal to 85% of the average market price of the common shares on such date, all in accordance with applicable laws and the terms and conditions of the ESPP. For the purposes of the ESPP, the average market price of the common shares as at a given date shall be the weighted average trading price on the trading day immediately preceding such date. The number of common shares reserved for issuance under the ESPP cannot exceed 272,350 common shares, plus the number of common shares that are automatically added on January 1st of each year, commencing on (and including) January 1, 2018 and ending on (and including) January 1, 2027, in an amount equal to the lesser of (i) 1% of the total number of common shares issued and outstanding on December 31st of the preceding calendar year, and (ii) 419,000 common shares. No rights to purchase common shares may be issued under the plan from and after the tenth anniversary of the date the plan becomes effective, unless otherwise approved by our shareholders.

The ESPP is administered by the compensation committee. The compensation committee has the authority, in the event the common shares are subdivided or consolidated, or in the event the common shares will be exchanged for shares of another issuer in the context of a reorganization, split-up, liquidation, recapitalization or similar transaction, to determine appropriate equitable adjustments, if any, to be made under the ESPP, including adjustments to the number of common shares which have been authorized for issuance under the ESPP.

In the event of certain significant corporate transactions such as an acquisition, merger or sale of all or substantially all of our assets, then either (i) a participant's then-outstanding purchase right shall be continued or substituted for by the surviving or acquiring entity, or (ii) such purchase right shall be terminated in exchange for a cash payment equal to the fair market value of a number of our common shares on the date of such transaction that the participant's accumulated payroll deductions as of the date of the transaction could purchase, determined with reference only to the first business day of the applicable purchase period, less the result of multiplying such number of shares by such purchase price.

Our board of directors has the right to amend or terminate the ESPP, in whole or in part, at any time, subject to applicable laws and requirements of any stock exchange or governmental or regulatory body (including any requirement for shareholder approval). Subject to certain exceptions, our board of directors is entitled to make amendments to the ESPP without shareholder approval.

Compensation Committee Interlocks and Insider Participation

As described above, the members of our compensation committee are Mr. Renton (Chair), Dr. Hillan and Ms. Zoth. In 2017, none of our executive officers (a) served as a member of the compensation committee (or other committee of the board of directors performing equivalent functions, or in the absence of any such committee, the entire board of directors) of another entity that had an executive officer who served on our compensation committee; (b) served as director of another entity that had an executive officer who served on our compensation committee; or (c) served on compensation committee of another entity that had an executive officer who served as one of our directors.

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

The following table indicates information as of February 28, 2018 regarding the beneficial ownership of our common shares for:

- each person who is known by us to beneficially own more than 5% of our common shares;
- each named executive officer;
- each of our directors; and
- all of our directors and executive officers as a group.

The number of shares beneficially owned and the percentage of shares beneficially owned are based on 25,461,460 common shares issued and outstanding as of February 28, 2018. Unless otherwise indicated in the footnotes to the table, and subject to community property laws where applicable, the following persons have sole voting and investment control with respect to the shares beneficially owned by them. In accordance with SEC rules, if a person has a right to acquire beneficial ownership of any common shares on or within 60 days, upon conversion or exercise of outstanding securities or otherwise, the shares are deemed beneficially owned by that person and are deemed to be outstanding solely for the purpose of determining the percentage of our shares that person beneficially owns. These shares are not included in the computations of percentage ownership for any other person. To our knowledge, except as noted in the table below, no person or entity is the beneficial owner of more than 5% of the voting power of our common shares.

Except as otherwise indicated, the address of each of the persons in this table is 540-1385 West 8th Avenue, Vancouver, British Columbia, Canada V6H 3V9.

Name and Address of Beneficial Owner	Shares Beneficially Owned	Percentage of Shares Beneficially Owned
5% and Greater Shareholders:		
Eli Lilly and Company [1]	3,957,085	15.5%
CTI Life Sciences Fund, L.P. [2]	3,027,902	11.9
Celgene Alpine Investment Co., LLC [3]	1,539,483	6.0
BDC Capital Inc [4]	1,923,074	7.6
Fonds de solidarité des travailleurs du Québec (F.T.Q.) [5]	1,551,787	6.1
Directors and Named Executive Officers:		
Nick Bedford [6]	195,068	*
Diana Hausman [7]	21,258	*
Kenneth Hillan [8]	17,456	*
Neil Klompas [9]	166,869	*
Hollings Renton [10]	17,456	*
Natalie Sacks [11]	9,077	
Ali Tehrani [12]	615,120	2.4
Lota Zoth [13]	18,459	*
All executive officers and directors as a group (8 persons)	1,060,763	4.1%

* Less than one percent

(1) Consists of 3,957,085 common shares held by Eli Lilly and Company. The address for this entity is Lilly Corporate Center, Indianapolis, Indiana 46285, USA.

(2) Consists of 3,027,902 common shares held by CTI Life Sciences Fund, L.P. The address for this entity is 1 Place Ville-Marie, Suite 1635, Montréal, Québec H3B 2B6, Canada.

(3) Consists of 1,539,483 common shares held by Celgene Alpine Investment Co., LLC. The address for this entity is 86 Morris Avenue, Summit, NJ 07901, USA.

(4) Consists of 1,923,074 common shares held by BDC Capital Inc. The address for this entity is 5 Place Ville Marie, Suite 400, Montreal, Quebec H3B 5E7, Canada.

(5) Consists of 1,551,787 common shares held by Fonds de solidarité des travailleurs du Québec (F.T.Q.). The address for this entity is 545 Cremazie Blvd. East, Suite 200, Montréal, Québec, H2M 2W4, Canada.

(6) Consists of 137,223 common shares held jointly with Stania Bedford, and 57,845 common shares issuable upon the exercise of options exercisable within 60 days after February 28, 2018.

(7) Consists of 2,000 common shares held personally and 2,000 common shares held by Wayne Jack Wallis, and 17,258 common shares issuable upon the exercise of options exercisable within 60 days after February 28, 2018.

(8) Consists of 17,456 common shares issuable upon the exercise of options exercisable within 60 days after February 28, 2018.

(9) Consists of 649 shares held personally and 700 shares held by Jennifer Heine, and 165,520 common shares issuable upon the exercise of options exercisable within 60 days after February 28, 2018.

(10) Consists of 17,456 common shares issuable upon the exercise of options exercisable within 60 days after February 28, 2018.

(11) Consists of 9,077 common shares issuable upon the exercise of options exercisable within 60 days after February 28, 2018.

(12) Consists of 256,009 common shares held personally and 62,286 common shares held by Charissa Tehrani, and 296,825 common shares issuable upon the exercise of options exercisable within 60 days after February 28, 2018.

(13) Consists of 18,459 common shares issuable upon the exercise of options exercisable within 60 days after February 28, 2018.

Securities Authorized for Issuance under Equity Compensation Plans

The following table sets forth summary information relating to our various stock compensation plans as of December 31, 2017:

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants, and rights	Weighted average exercise price of outstanding options warrants, and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column a)
	(a)	(b)	(c)
Equity compensation plans approved by security holders:	872,525 (1)	C$12.39 and $9.70 (1)	1,425,174
Equity compensation plans not approved by security holders:	2,027,782	C$14.45	–

(1) Stock options granted under the New Stock Option Plan are granted with exercise prices in both Canadian dollars and U.S. dollars. As of December 31, 2017, there were 872,525 outstanding stock options under the New Stock Option Plan, consisting of 235,930 stock options with a weighted average exercise price of C$12.39 and 636,595 stock options with a weighted average exercise price of $9.70.

For more information regarding stock compensation plans, please refer to Note 10 “Redeemable Convertible Class A Preferred Shares, Special Shares and Shareholders’ Equity” to our Consolidated Financial Statements, under Item 8 of this Annual Report on Form 10-K.

Item 13. Certain Relationships and Related Transactions and Director Independence

In addition to the compensation arrangements discussed under Item 11, “Executive Compensation,” the following is a description of the material terms of those transactions with related parties to which we are party and which we are required to disclose pursuant to the disclosure rules of the SEC and the Canadian Securities Administrators.

Indemnification Agreements and Directors’ and Officers’ Liability Insurance

We carry directors’ and officers’ liability insurance for our directors and officers. Currently, this insurance covers the liabilities of our directors and officers up to a maximum claim of $35.0 million (less a deductible of up to $1.0 million payable by the Company depending on the nature of the claim) for each loss at an annual premium of $0.4 million. We believe this level of coverage is appropriate for a biopharmaceutical company at our stage of development. In addition, we also carry Public Offering of Securities Insurance, or POSI, for our directors and officers with respect to claims arising from the issuance of securities pursuant to our IPO. The POSI covers up to a maximum claim of $25.0 million (less a deductible of up to $1.0 million) at an annual premium of $0.4 million.

We have indemnification agreements with each of our current directors and officers. The indemnification agreements generally require that we indemnify and hold the indemnitees harmless to the greatest extent permitted by law for liabilities arising out of the indemnitees’ service to us as directors and officers, if the indemnitees acted honestly and in good faith with a view to the best interests of the Company and, with respect to criminal and administrative actions or other non-civil proceedings that are enforced by monetary penalty, if the indemnitee had reasonable grounds to believe that his or her conduct was lawful. The indemnification agreements also provide for the advancing of defense expenses to the indemnitees by us.

Indebtedness of Directors, Executive Officers and Employees

None of our directors, executive officers, employees, former directors, former executive officers or former employees, and none of their associates, is indebted to us or another entity whose indebtedness is the subject of a guarantee, support agreement, letter of credit or other similar agreement or understanding provided by us.

Participation in Initial Public Offering

At our request, the underwriters in our initial public offering reserved up to 2.5% of the common shares being offered for sale, at the initial public offering price, to our directors, officers, employees and other individuals associated with us and members of their families. 78,300 shares were sold in this manner to such individuals.

Policy Regarding Related Party Transactions

All transactions between us and our officers, directors, principal shareholders and their affiliates must be approved by the audit committee, or a similar committee consisting of entirely independent directors, according to the terms of our Code of Conduct.

Requirements under the Business Corporations Act (British Columbia)

Pursuant to the BCBCA, directors and officers are required to act honestly and in good faith with a view to the best interests of the company. Under the BCBCA, subject to certain limited exceptions, a director who holds a disclosable interest in a material contract or transaction into which we have entered or propose to enter shall not vote on any directors' resolution to approve the contract or transaction. A director or officer has a disclosable interest in a material contract or transaction if the director or officer:

- is a party to the contract or transaction;
- is a director or officer, or an individual acting in a similar capacity, of a party to the contract or transaction; or
- has a material interest in a party to the contract or transaction.

Generally, as a matter of practice, directors or officers who have disclosed a material interest in any contract or transaction that our board of directors is considering will not take part in any board discussion respecting that contract or transaction. If such directors were to participate in the discussions, they would abstain from voting on any matters relating to matters in which they have disclosed a disclosable interest.

Interests of Management and Others in Material Transactions

Other than as described elsewhere in this Annual Report on Form 10-K, there are no material interests, direct or indirect, of any of our directors or executive officers, any shareholder that beneficially owns, or controls or directs (directly or indirectly), more than 10% of any class or series of our outstanding voting securities, or any associate or affiliate of any of the foregoing persons, in any transaction within the last fiscal year that has materially affected or is reasonably expected to materially affect us or any of our subsidiaries.

Independence of the Board of Directors

The Board has determined that all directors, except Mr. Tehrani, meet the independence requirements under the NYSE Listing Rules and qualify as "independent directors" under those Listing Rules. Mr. Tehrani is not considered independent by virtue of being our President and Chief Executive Officer. Each of the members of our compensation committee, audit committee and corporate governance and nominating committee is an independent director.

Item 14. Principal Accounting Fees and Services

Aggregate fees billed by our independent auditors, KPMG LLP for the years ended December 31, 2017 and December 31, 2016 are detailed in the table below.

	Fiscal 2017 ($)[5]	**Fiscal 2016 ($)[5]**
Audit Fees [1]	496,627	310,125
Audit Related Fees [2]	-	19,938
Tax Fees [3]	55,401	-
All Other Fees [4]	-	-
Total Fees Paid	**552,028**	**330,063**

(1) Fees for audit service on an accrued basis.

(2) Fees not included in audit fees that are billed by the auditor for assurance and related services that are reasonably related to the performance of the audit of the financial statements.
(3) Fees for professional services rendered for tax compliance, tax advice and tax planning.
(4) All other fees billed by the auditor for products and services not included in the foregoing categories.
(5) Canadian dollar amounts have been converted to U.S. dollars based on the historical Canadian to U.S. average daily rate of exchange as at December 31, 2017 and December 31, 2016.

Our audit committee has established a policy of reviewing, in advance, and either approving or not approving, all audit, audit-related, tax and other non-audit services that our independent registered public accounting firm provides to us. This policy requires that all services received from independent registered public accounting firms be approved in advance by the audit committee or a delegate of the audit committee. The audit committee has delegated pre-approval responsibility to the chair of the audit committee with respect to non-audit related fees and services. All services that KPMG LLP provided to us in fiscal 2017 and 2016 have been pre-approved by the audit committee.

The audit committee has determined that the provision of the services as set out above is compatible with the maintaining of KPMG LLP’s independence in the conduct of their auditing functions.

PART IV

Item 15. Exhibits, Financial Statement Schedules

(a)(1) Financial Statements — The financial statements included in Item 8 are filed as part of this Annual Report on Form 10-K.

(a)(2) Financial Statement Schedules — All schedules have been omitted because they are not applicable or required, or the information required to be set forth therein is included in the consolidated Financial Statements or notes thereto included in Item 8 of this Annual Report on Form 10-K.

(a)(3) Exhibits — The exhibits required by Item 601 of Regulation S-K are listed in paragraph (b) below.

(b) Exhibits — The exhibits listed on the Exhibit Index below are filed herewith or are incorporated by reference to exhibits previously filed with the SEC.

EXHIBITS INDEX

Exhibit No.	Description
3.1	Form of Notice of Articles of the Registrant (incorporated by reference to Exhibit 3.1 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 17, 2017).
3.2	Form of Articles of the Registrant (incorporated by reference to Exhibit 3.2 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 17, 2017).
4.1	Specimen common share certificate (incorporated by reference to Exhibit 4.1 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 24, 2017).
4.2	Warrant Certificate issued to Perceptive Credit Holdings, (incorporated by reference to Exhibit 4.3 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 3, 2017).
4.3	Investors' Rights Agreement, dated January 7, 2016, by and among the Registrant and the investors listed on Schedule A-1 and Schedule A-2 thereto (incorporated by reference to Exhibit 4.4 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 3, 2017).
10.1#	Employment Agreement, dated December 13, 2007, by and between the Registrant and Dr. Ali Tehrani, as amended January 1, 2014 (incorporated by reference to Exhibit 10.1 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 3, 2017).
10.2#	Amended and Restated Employment Agreement, dated January 17, 2017, by and between the Registrant and Dr. Ali Tehrani (incorporated by reference to Exhibit 10.2 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 3, 2017).
10.3#	Employment Agreement, dated January 25, 2007, by and between the Registrant and Neil Klompas, as amended October 23, 2007 and January 1, 2014 (incorporated by reference to Exhibit 10.3 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 3, 2017).

Exhibit No.	Description
10.4#	Amended and Restated Employment Agreement, dated January 17, 2017, by and between the Registrant and Neil Klompas (incorporated by reference to Exhibit 10.4 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 3, 2017).
10.5#	Employment Agreement, dated June 1, 2016, by and between the Registrant and Diana Hausman (incorporated by reference to Exhibit 10.5 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 3, 2017).
10.6#	Amended and Restated Employment Agreement, dated January 18, 2017, by and between the Registrant and Diana Hausman (incorporated by reference to Exhibit 10.6 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 3, 2017).
10.7#	Form of Indemnity Agreement between the Registrant and its officers and directors (incorporated by reference to Exhibit 10.13 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 17, 2017).
10.8#	Employee Stock Option Plan and forms of agreements thereunder (incorporated by reference to Exhibit 10.14 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 17, 2017).
10.9#	New Stock Option Plan (incorporated by reference to Exhibit 10.15 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 3, 2017).
10.10†	Amended and Restated Research and License Agreement, effective as of December 3, 2014, by and between the Registrant and Merck Sharp & Dohme Research GmbH (incorporated by reference to Exhibit 10.16 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 3, 2017).
10.11†	Licensing and Collaboration Agreement, effective as of December 17, 2013, by and between the Registrant and Eli Lilly and Company (incorporated by reference to Exhibit 10.17 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 3, 2017).
10.12†	First Amendment to Licensing and Collaboration Agreement, effective as of May 30, 2014, by and between the Registrant and Eli Lilly and Company, as amended February 25, 2014 and June 16, 2014 (incorporated by reference to Exhibit 10.18 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 3, 2017).
10.13†	Licensing and Collaboration Agreement, effective as of October 22, 2014, by and between the Registrant and Eli Lilly and Company (incorporated by reference to Exhibit 10.19 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 3, 2017).
10.14†	First Amendment to Licensing and Collaboration Agreement, effective as of June 4, 2015, by and between the Registrant and Eli Lilly and Company (incorporated by reference to Exhibit 10.20 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 3, 2017).
10.15†	Second Amendment to Licensing and Collaboration Agreement, effective as of January 24, 2017, by and between the Registrant and Eli Lilly and Company (incorporated by reference to Exhibit 10.21 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 3, 2017).
10.16†	Collaboration Agreement, effective as of December 23, 2014, by and among the Registrant, Celgene Corporation and Celgene Alpine Investment Co. LLC (incorporated by reference to Exhibit 10.22 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 3, 2017).

Exhibit No.	Description
10.17†	Collaboration and License Agreement, effective as of December 1, 2015, by and between the Registrant and GlaxoSmithKline Intellectual Property Development Limited (incorporated by reference to Exhibit 10.23 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 3, 2017).
10.18†	Platform Technology Transfer and License Agreement, effective as of April 21, 2016, by and between the Registrant and GlaxoSmithKline Intellectual Property Development Limited (incorporated by reference to Exhibit 10.24 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 3, 2017).
10.19†	Collaboration and Cross License Agreement, effective as of September 26, 2016, by and between the Registrant and Daiichi Sankyo Co., Ltd (incorporated by reference to Exhibit 10.25 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 3, 2017).
10.20	Lease of Office Space Agreement dated as of April 6, 2015, by and between Poplar Properties Ltd. and Zymeworks Inc. and the Amendment thereto dated August 28, 2015 (incorporated by reference to Exhibit 10.26 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 3, 2017).
10.21#	Employee Stock Purchase Plan, (incorporated by reference to Exhibit 10.28 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 3, 2017).
10.22†	First Amendment to Collaboration Agreement, effective as of May 29, 2017, by and between the Registrant, Celgene Corporation and Celgene Alpine Investment Co. LLC (incorporated by reference to Exhibit 99.1 to a Report of Foreign Private Issuer on Form 6-K (File No. 001-38068), originally furnished to the SEC on July 18, 2017 and deemed filed under the Exchange Act).
10.23†	Collaboration and License Agreement, effective as of November 13, 2017, by and between the Registrant and Janssen Biotech, Inc., (incorporated by reference to Exhibit 99.1 to a Report of Foreign Private Issuer on Form 6-K (File No. 001-38068), originally furnished to the SEC on November 24, 2017 and deemed filed under the Exchange Act).
21.1	Subsidiaries of the Registrant (incorporated by reference to Exhibit 21.1 to the Company's Registration Statement on Form F-1 (File No. 333-217100), originally filed with the SEC on April 3, 2017).
23.1	Consent of KPMG LLP, an Independent Registered Public Accounting Firm.
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934.
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934.
32.1	Certification of the Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
99.1	List of Peer Group Companies.

† Registrant has omitted portions of the referenced exhibit pursuant to a request for confidential treatment under Rule 406 promulgated under the Securities Act.

# Indicates management contract or compensatory plan.

Item 16. Form 10-K Summary

Not applicable.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Dated: March 14, 2018

ZYMEWORKS INC.

By: /s/ Ali Tehrani
Name: Ali Tehrani
Title: President and Chief Executive Officer and Director (Principal 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 the dates indicated.

Signature	Title	Date
/s/ Ali Tehrani Ali Tehrani	President and Chief Executive Officer and Director (Principal Executive Officer)	March 14, 2018
/s/ Neil Klompas Neil Klompas	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	March 14, 2018
/s/ Nick Bedford Nick Bedford	Director	March 14, 2018
/s/ Kenneth Hillan Kenneth Hillan	Director	March 14, 2018
/s/ Hollings Renton Hollings Renton	Director	March 14, 2018
/s/ Natalie Sacks Natalie Sacks	Director	March 14, 2018
/s/ Lota Zoth Lota Zoth	Director	March 14, 2018

Exhibit 23.1

KPMG LLP
Chartered Accountants
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Vancouver BC V7Y 1K3
Canada

Telephone (604) 691-3000
Fax (604) 691-3031
Internet www.kpmg.ca

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors

Zymeworks Inc.

We consent to the incorporation by reference in the registration statement (No. 333-217630) on Form S-8 of Zymeworks Inc. of our report dated March 14, 2018 with respect to the consolidated balance sheets of Zymeworks Inc. at December 31, 2017 and December 31, 2016 and the related consolidated statements of loss and comprehensive loss, changes in redeemable convertible preferred shares and shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2017, which report appears in the December 31, 2017 annual report on Form 10-K of Zymeworks Inc.

/s/ KPMG LLP

Chartered Professional Accountants

Vancouver, Canada

March 14, 2018

Exhibit 31.1

CERTIFICATION
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Ali Tehrani, certify that:

1. I have reviewed this Annual Report on Form 10-K of Zymeworks Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 14, 2018

/s/ Ali Tehrani
Chief Executive Officer

Exhibit 31.2

CERTIFICATION
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Neil Klompas, certify that:

1. I have reviewed this Annual Report on Form 10-K of Zymeworks Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 14, 2018

/s/ Neil Klompas
Chief Financial Officer

Exhibit 32.1

SECTION 906 CERTIFICATION

Pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code) in connection with the Annual Report on Form 10-K of Zymeworks Inc. for the annual period ended December 31, 2017 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned officer hereby certifies, to such officer's knowledge, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Zymeworks Inc.

/s/ Ali Tehrani

Name: Ali Tehrani
Title: Chief Executive Officer
Date: March 14, 2018

This certification accompanies the Report pursuant to § 906 of the Sarbanes-Oxley Act of 2002 and shall not, except to the extent required by the Sarbanes-Oxley Act of 2002, be deemed "filed" by the Company for purposes of §18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liability of that section.

Exhibit 32.2

SECTION 906 CERTIFICATION

Pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code) in connection with the Annual Report on Form 10-K of Zymeworks Inc. for the annual period ended December 31, 2017 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned officer hereby certifies, to such officer's knowledge, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Zymeworks Inc.

/s/ Neil Klompas

Name: Neil Klompas
Title: Chief Financial Officer
Date: March 14, 2018

This certification accompanies the Report pursuant to § 906 of the Sarbanes-Oxley Act of 2002 and shall not, except to the extent required by the Sarbanes-Oxley Act of 2002, be deemed "filed" by the Company for purposes of §18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liability of that section.

Exhibit 99.1

PEER GROUP OF COMPANIES

1. Aquinox Pharmaceuticals, Inc.
2. Arbutus Biopharma Corporation
3. Atara Biotherapeutics, Inc.
4. Bellicum Pharmaceuticals, Inc.
5. Calithera Biosciences, Inc.
6. Cascadian Therapeutics, Inc.
7. Celldex Therapeutics, Inc.
8. Cellular Biomedicine Group, Inc.
9. Cidara Therapeutics, Inc.
10. Corvus Pharmaceuticals, Inc.
11. CytomX Therapeutics, Inc.
12. Fate Therapeutics, Inc.
13. Ignyta, Inc.
14. Immune Design Corp.
15. Iovance Biotherapeutics, Inc.
16. Karyopharm Therapeutics Inc.
17. MacroGenics, Inc.
18. Miragen Therapeutics, Inc.
19. Mirati Therapeutics, Inc.
20. OncoMed Pharmaceuticals, Inc.
21. Regulus Therapeutics Inc.
22. Stemline Therapeutics, Inc.