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 April 30, 2019

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 001-36830

KalVista Pharmaceuticals, Inc.

(Exact name of Registrant as specified in its Charter)

Delaware	**20-0915291**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
55 Cambridge Parkway Suite 901 East Cambridge, Massachusetts	**02142**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (857) 999-0075

Title of Each Class	**Trading Symbol**	**Name of Exchange on Which Registered**
Common Stock, $0.001 par value per share	**KALV**	**The Nasdaq Stock Market LLC**

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

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

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

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). YES ☒ NO ☐

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

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

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

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). YES ☐ NO ☒

The aggregate market value of common stock held by non-affiliates of the registrant calculated based on the closing price of $18.90 of the registrant's common stock as reported on The NASDAQ Global Market on October 31, 2018, the last business day of the registrant's most recently completed second quarter, was $177,929,193.

The number of shares of Registrant's Common Stock outstanding as of July 1, 2019 was 17,388,298.

DOCUMENTS INCORPORATED BY REFERENCE

Information required in responses to Part III of Form 10-K is hereby incorporated by reference to portions of the Registrant's Proxy Statement for the Annual Meeting of Stockholders to be held in 2019. The Proxy Statement will be filed by the Registrant with the Securities and Exchange Commission no later than 120 days after the end of the Registrant's fiscal year ended April 30, 2019.

Table of Contents

PART I

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements. All statements other than statements of historical fact are "forward-looking statements" for purposes of this Annual Report on Form 10-K. These forward-looking statements may include, but are not limited to, statements regarding our future results of operations and financial position, business strategy, market size, potential growth opportunities, timing and results of preclinical and clinical development activities, and potential regulatory approval and commercialization of product candidates. In some cases, forward-looking statements may be identified by terminology such as "believe," "may," "will," "should," "predict," "goal," "strategy," "potentially," "estimate," "continue," "anticipate," "intend," "could," "would," "project," "plan," "expect," "seek" and similar expressions and variations thereof. We have based these forward-looking statements largely on our current expectations and projections about future events and trends that we believe may affect our financial condition, results of operations, business strategy, short-term and long-term business operations and objectives and financial needs. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those described in the "Risk Factors" section and elsewhere in this Annual Report on Form 10-K. Moreover, we operate in a very competitive and rapidly changing environment, and new risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this report may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements.

You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. We undertake no obligation to update publicly any forward-looking statements for any reason after the date of this report to conform these statements to actual results or to changes in our expectations, except as required by law.

As used in this Annual Report on Form 10-K, the terms "KalVista," "the Company," "we," "us," and "our" refer to KalVista Pharmaceuticals, Inc. and, where appropriate, its consolidated subsidiary, unless the context indicates otherwise.

Item 1. Business.

Overview

We are a clinical stage pharmaceutical company focused on the discovery, development and commercialization of small molecule protease inhibitors for diseases with significant unmet need. Our first product candidates are inhibitors of plasma kallikrein being developed for two indications: hereditary angioedema ("HAE") and diabetic macular edema ("DME"). We apply our insights into the chemistry of proteases and, with our current programs, the biology of the plasma kallikrein system, to develop small molecule inhibitors with high selectivity, potency and bioavailability that we believe will make them successful treatments for disease. We have created a structurally diverse portfolio of oral plasma kallikrein inhibitors and advanced multiple drug candidates into Phase 1 clinical trials in order to create what we believe will be best-in-class oral therapies for these two indications.

We have advanced one of these candidates, KVD900, into later stage clinical development as potential on-demand therapy for HAE attacks, with a Phase 2 clinical trial expected to complete in late 2019. This trial will evaluate the safety and efficacy of KVD900 as an on-demand treatment for HAE attacks in at least 50 Type 1 and Type 2 HAE patients. In the case of DME, we are initially developing a plasma kallikrein inhibitor which is administered directly into the eye and anticipate ultimately developing orally delivered drugs. Our most advanced DME drug candidate, KVD001, is currently in a fully enrolled Phase 2 clinical trial which we anticipate will be completed in the second half of 2019.

HAE is a rare and potentially life-threatening condition with symptoms that include episodes of debilitating and often painful swelling in the skin, gastrointestinal tract or airways. Despite having multiple therapies approved, we believe HAE patients are in need of alternatives that better meet their objectives for quality of life and ease of disease control. Currently marketed therapies are all administered by injection and we anticipate that there will be strong interest in safe and effective, orally delivered, small molecule treatments. Our strategy for the treatment of HAE is to develop a portfolio of molecules, both to provide best-in-class oral therapeutics as well as to have the opportunity to evaluate molecules for different market segments. Our medicinal chemistry program has discovered and patented a large portfolio of structurally diverse plasma kallikrein inhibitors, which enables us to select only compounds that meet stringent criteria for progression.

Based upon results observed in the Phase 1 trial, we have selected the compound KVD900 to move forward as a potential therapy for on-demand treatment of acute attacks in patients with HAE. We believe that a conveniently administered oral, on-demand product could provide an opportunity to capture a significant portion of the current acute treatment market as well as patients who may currently use prophylactic therapies because of the lack of convenient and effective alternatives. We initiated a Phase 2 clinical trial for KVD900 in late 2018 that we expect to complete in late 2019. This trial will evaluate the safety and efficacy of KVD900 as an on-demand treatment for HAE attacks when taken at the onset of symptoms.

Our Phase 1 first-in-human study of KVD900 displayed what we believe is a very attractive profile for on-demand therapy. In the placebo-controlled study in healthy volunteers, doses of up to 600 mg were generally well tolerated with no dose-limiting safety signals emerging and no treatment-related gastrointestinal adverse events noted at all dose levels tested. The pharmacokinetic exposure profile revealed rapid absorption of KVD900 following oral administration to maximal concentrations more than 100x the concentration at which we believe we can demonstrate clinical efficacy. The rapidity of absorption was such that at the higher dose levels, effective concentrations were reached in as little as 10 minutes after dosing. Exposure to KVD900, determined as both maximal concentration and overall exposure (area under the curve) increased dose-dependently. We believe this combination of rapid uptake and very high drug levels compares favorably to the existing injected therapies, which show no faster absorption and generally much lower peak levels of drug concentration. Our pharmacodynamic analysis of samples collected from the volunteers following administration of KVD900 shows high levels of plasma kallikrein inhibition for as long as 10 hours after a single dose. This data, combined with the level of inhibition of plasma kallikrein activity by exogenously added KVD900 in HAE patient plasma tested in a separate assay, leads us to believe that a single dose of KVD900 may inhibit plasma kallikrein in patients experiencing an acute HAE attack sufficiently to provide a therapeutic alternative that is superior to current treatments.

DME is the leading cause of moderate vision loss in most developed countries and diabetes, the underlying cause of DME, is the leading cause of blindness among adults aged 20 to 74 years old, according to 2014 statistics published by the Center for Disease Control and Prevention. Our DME program is initially focused on the development of an intravitreally administered small molecule plasma kallikrein inhibitor, KVD001. We believe intravitreal plasma kallikrein inhibitors may be an effective alternative therapy to vascular endothelial growth factor (“VEGF”) inhibitors and further improve visual acuity and decrease macular thickening. Preclinical pharmacokinetic studies in animals using KVD001 have shown that direct injection into the eye delivers a high drug concentration at the desired site of action. The drug concentration is maintained for a prolonged period with a low systemic exposure, potentially supporting an extended dosing schedule. We have successfully completed a first-in-human trial of KVD001 in patients with DME and have fully enrolled a Phase 2 trial that we expect to complete in the second half of 2019. In addition to KVD001, we also plan to develop an oral plasma kallikrein inhibitor to treat DME. An oral treatment may provide the opportunity to reduce treatment burden, treat patients earlier in disease progression, and provide a convenient and readily accessible treatment option for DME.

In addition to KVD900 for HAE and KVD001 for DME, in January 2019 we announced initiation of a first-in-human study for KVD824, our next clinical stage oral plasma kallikrein inhibitor candidate. This study tested single doses of KVD824 from 10 mg to 1280 mg and multiple doses from 80mg to 640mg given twice daily. KVD824 was generally well tolerated at all dose levels tested. Based upon these results, we believe that KVD824 may have potential for development in either HAE or DME, and we have determined to conduct additional formulation work to further optimize the pharmacokinetics and pharmacodynamics of the compound prior to making a decision as to which indication to pursue. We anticipate completing this additional work in 2019, and are currently making preparations to initiate a Phase 2 clinical trial in our chosen indication in the first half of 2020.

In October 2017, our wholly-owned, U.K. based subsidiary KalVista Pharmaceuticals Limited ("KalVista Limited) and Merck Sharp & Dohme Corp. ("Merck") entered into an option agreement (the "Option Agreement") under which we granted to Merck an option to acquire KVD001 through a period following completion of a Phase 2 clinical trial. We also granted to Merck a similar option to acquire investigational orally delivered molecules for DME (the "Oral DME Compounds") that we will continue to develop as part of our ongoing research and development activities, through a period following the completion of a Phase 2 clinical trial. Under the terms of the Option Agreement, Merck paid to us a non-refundable upfront fee of $37.0 million in November 2017 and may pay up to an additional $715 million in milestones as well as royalties on net sales of any products commercialized under the Agreement. The next payment due from Merck will be in the event that Merck determines to exercise its option on KVD001 after we provide them with a data package following the Phase 2 trial completion. Should Merck exercise this option, they will be obligated to make an exercise payment as well as additional milestone payments based upon achievement of further clinical and regulatory events. Merck also invested approximately $9.1 million in a separate private placement transaction of common shares that closed concurrently with the Option Agreement.

Strategy

Key elements of our strategy include:

- *Apply our deep scientific expertise in the area of serine proteases to develop novel oral therapies for indications with high unmet need.* Our core scientific team has decades of experience working on protease inhibitors and developing compounds with high potency, selectivity and bioavailability. We have assembled a team of chemists and biologists who have demonstrated the ability to design and formulate multiple drug candidate programs from a broad variety of chemical classes, as indicated by our extensive intellectual property portfolio. Our initial focus is specifically on development of plasma kallikrein inhibitors for HAE and DME; however, we believe our scientific capabilities also can be applied to other proteases to develop therapies for diseases with high unmet need and orphan indications.
- *Advance multiple HAE product candidates into clinical development.* We intend to develop best-in-class oral therapies for HAE and, to accomplish that goal, we plan to bring multiple drug candidates into clinical trials and compare their performance before determining which program, or programs, to advance. KVD900 has been chosen to advance to later stage development as an on-demand therapy for acute HAE attacks, and a Phase 2 clinical trial in HAE patients is expected to complete in late 2019. We are still conducting preclinical development of multiple additional drug candidates. We expect that these additional candidates will be developed for other portions of the HAE market, such as prophylactic treatment, that are still in need of better therapeutic options.
- *Continue to advance our intravitreal DME program and develop an oral therapy.* KVD001, our first product candidate to treat DME, will complete a Phase 2 clinical trial in the second half of 2019. We also intend to develop an oral therapy for this indication, which we believe could dramatically improve the standard of care for patients, since all current therapies are delivered by injection into the eye.
- *Grow our capabilities internally as well as through strategic partnerships.* We intend to retain ownership and control of our pipeline programs to key milestones. For certain indications, such as HAE, that can be addressed by a focused organization, we may determine to keep all program rights and develop sales and marketing capabilities. For programs that address larger markets or require greater infrastructure or resources, we may seek a partner that can provide those capabilities such as we did with Merck in DME. Decisions on whether, and when, to engage in partnerships or collaborations will be based upon our evaluations of the relative risks and rewards of those collaborations at each point in the development cycle.

Plasma Kallikrein in HAE and DME

Plasma kallikrein is a serine protease enzyme that is a key early mediator of inflammation and edema. The body modulates the inflammatory effects of plasma kallikrein through a circulating inhibitor protein called C1-esterase inhibitor ("C1-INH"). Most patients with HAE have genetic mutations that lead to C1-INH deficiency,

which results in an inability to control activated plasma kallikrein in affected tissues. This excessive activation leads to inflammation, edema, and pain.

Published laboratory work has shown that the vitreous fluid of the eye is also a site of increased plasma kallikrein in DME. In diabetic patients, the retina is one of a few tissues in which edema develops. Under normal circumstances the eye is protected from the diffusion of plasma proteins by an effective blood vessel barrier. In diabetes this barrier becomes less effective and allows plasma proteins such as plasma kallikrein to enter the retina and vitreous. While C1-INH can also to enter by the same route, animal models of DME have shown that the concentration of C1-INH in the vitreous fluid is insufficient to fully suppress the effects of plasma kallikrein on retinal edema. Over time, this edema leads to retinal damage that causes blindness.

Hereditary Angioedema

Disease Overview

HAE is a rare and potentially life-threatening genetic condition that occurs in about 1 in 10,000 to 1 in 50,000 people, according to published information from an HAE patient advocacy group. Excessive plasma kallikrein activation that is not sufficiently controlled by C1-INH leads to HAE attacks, which can vary with regard to the affected tissue or organ and severity. HAE attacks include episodes of intense swelling usually in the skin, gastrointestinal tract or airways. They often lead to temporary disfiguration of various body parts including the hands, feet, face, body trunk, and genitals. In addition, patients often have bouts of excruciating abdominal pain, nausea and vomiting that is caused by swelling in the intestinal wall. Airway swelling is particularly dangerous and can lead to death by asphyxiation.

Attacks can occur spontaneously although they often are associated with anxiety, stress, minor trauma, surgery, or illnesses. Commonly patients are alerted to an impending attack by prodromal symptoms which include rash, fatigue, and muscle aches. Trauma to the oral cavity caused by dental procedures makes HAE patients particularly vulnerable to airway attacks. The frequency of HAE attacks is highly variable, with some patients having attacks several times per week and others very infrequently. Population studies have shown that the median number of attacks per month for patients is approximately one, and approximately 90% of patients have two or fewer attacks per month. Although life-threatening airway swelling is rare, at least half of HAE patients have experienced at least one such attack and airway attacks remain a major cause of mortality in HAE patients. The severity of attacks is unpredictable and not related to their underlying frequency. A patient with only one attack per year can nevertheless be at risk of suffering a laryngeal attack.

The most common cause of HAE is a defect or mutation in the gene responsible for the production of C1-INH. HAE is an autosomal dominant disease, meaning that a defect in only one copy of the gene leads to symptoms and that it occurs at similar rates in both males and females. While HAE can result from the inheritance of a defective gene from a parent, a number of cases also arise from spontaneous mutations. Patients with C1-INH-related disease are classified as Type 1 or Type 2; Type 1 is the most common form and results in low levels of circulating C1-INH and Type 2 results in production of a low function protein. An additional form of HAE, sometimes called normal C1-INH HAE, can occur in patients with normal levels of C1-INH for a variety of reasons including mutations in genes for Factor 12, plasminogen or angiopoetin. Moreover, bradykinin-induced acute attacks of angioedema can occur idiopathically in individuals for which a hereditary cause has not yet been identified. Excessive formation of bradykinin can also be caused by increased circulation of estrogens, reduced elimination of bradykinin, or through use of drugs such as ACE inhibitors.

C1-INH is a natural plasma-borne protein that is an inhibitor of multiple serine proteases in both the complement and kallikrein kinin systems. C1-INH is the predominant physiological inhibitor of plasma kallikrein, and thereby suppresses the generation of bradykinin, a potent hormone produced by plasma kallikrein, that activates its receptors on blood vessels to increase vascular leakage. Uncontrolled plasma kallikrein activity leads to the edema that is the hallmark of HAE. Selective plasma kallikrein inhibitors and a bradykinin receptor antagonist are approved therapies for HAE. As such, plasma kallikrein is a clinically validated target for HAE and previous studies have demonstrated that plasma kallikrein inhibition can both treat and prevent HAE attacks.

Current Treatments and Market opportunities

There are a number of marketed and development stage therapeutics for HAE which provide evidence that inhibition of plasma kallikrein activity will give therapeutic benefit in HAE. Lanadelumab (Takyzyro™) is a plasma kallikrein inhibitor indicated for prophylaxis to prevent attacks of HAE. The prescribing information recommends subcutaneous administration every two weeks. Dosing every four weeks may be considered in some patients. Ecallantide (Kalbitor®) is a small protein inhibitor of plasma kallikrein that is approved for treatment of acute attacks of HAE. While effective, ecallantide has been associated with cases of anaphylaxis and its approval by the U.S. Food and Drug Administration ("FDA") includes a black box warning limiting its administration to healthcare professionals. Other therapies provide C1-INH replacement to control plasma kallikrein levels. Marketed C1-INH replacement therapies include Cinryze® and Berinert®, which are purified from human plasma, and Ruconest® which is a recombinant product. Icatibant (Firazyr®) is a synthetic peptide-based antagonist that blocks the activity of bradykinin. All of these products are administered by injection, which is typically less convenient for patients and has the potential to reduce compliance. As a result of the lifelong nature of HAE and the challenges related to taking many of the injected therapies, patient surveys consistently indicate an overwhelming desire of patients for an oral therapy. We believe that a safe and effective oral agent has the potential to transform treatment for this disease. We also believe that opportunities exist for both acute and prophylactic treatments, and we intend to consider all of our programs as potential therapies in both segments of the market. For this reason, we plan to evaluate multiple formulations and profiles of our programs as part of our clinical development strategy.

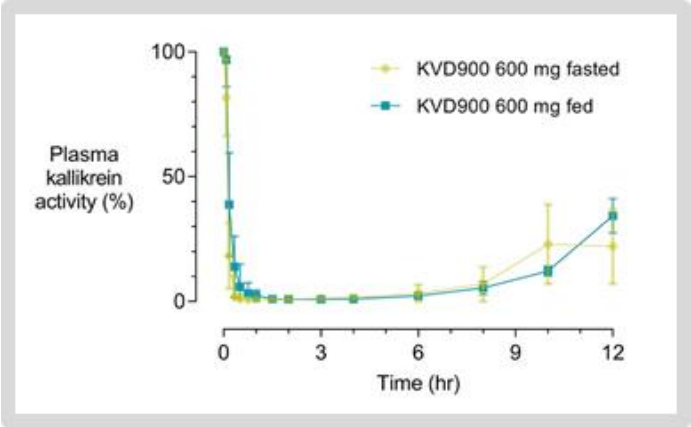
We believe a further future market opportunity may exist in treatment of normal C1-INH HAE. Estimates of the size of this patient population vary widely, but we believe that the nature of normal C1-INH HAE disease may make prophylaxis less attractive for these patients than a safe and rapidly effective on-demand plasma kallikrein inhibitor therapy.

Our Portfolio of HAE Programs

Our strategy is to evaluate and develop multiple oral molecules in pursuit of best-in-class therapies for HAE patients, with an initial focus on treatment of Type 1 and Type 2 HAE. This portfolio approach may lead to development of multiple molecules to address unmet need in both prophylactic and acute market segments. We have promoted multiple molecules into clinical testing and are pursuing additional candidates in order to expand the universe of properties and increase the likelihood of delivery of one or more best-in-class treatments for HAE. The first of these product candidates to be evaluated in later stage clinical trials is KVD900. KVD900 entered a Phase 2 clinical trial in late 2018 that is expected to complete in late 2019.

KVD900

The Phase 1, first-in-human study of KVD900 was a multi-part study consisting of a single ascending dose phase, a formulation cross-over phase, and investigation of food effect in 84 healthy, male volunteers. Doses up to 600 mg were tested in this study using both capsule and tablet formulation, with the tablet the intended formulation for future development. Data from the single ascending dose phase of the study showed that KVD900 tablets were rapidly absorbed into the bloodstream and achieved blood levels that we believe are sufficient for efficacy within as little as 10 minutes at the higher dose levels, and essentially complete inhibition of plasma kallikrein was observed within 30 minutes. During the formulation cross-over eight subjects were administered 100 mg KVD900 in both capsule and tablet formulation with a 7 day washout period between dosings. In the food effect phase twelve subjects were dosed fasted or following a standardized high calorie and high fat meal. The fed state had little impact on the pharmacodynamic profile of KVD900 tablets, delivering 95% inhibition within 30 minutes.



There were no severe adverse events ("SAE") reported. On active treatment, 22 of the 23 reported adverse events (AE) were mild; a moderate AE of headache was reported in the 10 mg dose group and considered unrelated to treatment. There was one gastrointestinal AE reported during the study which was considered unrelated to treatment. There were no clinically significant changes in vital signs, ECG or safety laboratory findings. Single doses of KVD900 up to 600 mg were generally well-tolerated in this study.

Evidence from studies using therapies approved for the treatment of acute HAE attacks shows that earlier treatment has a powerful impact on the efficacy outcomes. Despite clear evidence that early treatment markedly reduces attack duration, treatment is often delayed. In one outcome study of 207 HAE attacks, attack duration was 2.75-fold shorter when treatment was administered within 1 hour of attack onset (6.1 hours versus 16.8 hours [$p<0.001$]), yet nearly 60% of patients delayed treatment for more than one hour after the attack began, and 30% waited more than five hours. We believe this delay in administration is due to many factors including the inconvenience of preparation and administration as well as the discomfort of injectable therapies. An oral therapy has the potential to overcome these and lower the barrier for treatment for patients. The combination of the rapid uptake of KVD900 to very high blood levels and the likelihood of earlier dosing by patients, could lead to much better disease management and prevention of attacks reaching the critical stage of significant swelling and discomfort. We therefore believe that a safe, oral on-demand treatment has the potential to become a preferred alternative for patients currently using injectable treatments, including both acute and prophylactic therapies.

Based upon the results of the Phase 1 study, we are currently dosing KVD900 in a Phase 2 clinical trial intended to evaluate KVD900 as an on-demand treatment for HAE attacks. We intend to investigate the efficacy of KVD900 in at least 50 Type 1 and Type 2 HAE patients, conducted at 10-15 sites in the UK, Germany and several other European countries. During the first part of this two-part study, patients will receive a single 600 mg dose of KVD900 while not having an attack to explore pharmacokinetic and pharmacodynamic properties. All patients will then enter part two of the study, which is a randomized, blinded, crossover investigation of the efficacy of KVD900 versus placebo. Each patient will treat two attacks with trial medication, one with KVD900 and one with placebo in a randomized, blinded sequence. Following randomization, patients will be given the first treatment of the sequence to take home. At the onset of an attack patients will call their doctor to confirm the attack has started and will take their treatment within one hour of the recorded onset. Patients will then return to the clinic to receive the alternative treatment and proceed to treat a second attack in an identical manner. Patients will have access to their normal, acute treatment as required. The primary endpoint is use of standard of care and the secondary endpoints are comprised of several different symptom severity scores. Data is expected from this trial in late 2019.

Additional HAE Development Plans

In parallel with progression of KVD900 for on-demand therapy, we are committed to expansion of our proprietary compound portfolio to enable development of molecules with a diverse set of properties that maximize our chance of progressing additional best-in-class treatments for HAE. We intend to develop one of our other drug candidates to provide a therapeutic option for the prophylactic segment of the market. Our scientific team has

demonstrated the ability to consistently generate new candidate molecules, enabling a rigorous selection process that only advances programs that meet strict internal criteria. As part of this effort, we have developed assays that provide proprietary insights into inhibition of plasma kallikrein, supporting selection of product candidates at an earlier stage that may have a higher likelihood of demonstrating clinical success. Activation of plasma kallikrein during an HAE attack results in the cleavage of high molecular weight kininogen (HK) to release bradykinin, which increases vascular permeability leading to angioedema. Previous studies have shown that protection of HK from cleavage is associated with protection from HAE attacks. Therefore, we use an assay to quantify the protection of HK whole plasma as an ex vivo model to evaluate the pharmacodynamic effects of plasma kallikrein inhibitors on HAE attacks. This model evaluates the effects of plasma kallikrein inhibitors on the specific plasma kallikrein substrate (HK) that is associated with bradykinin generation in undiluted plasma, which has physiologically relevant concentrations of components of the kallikrein system as well as factors that may influence the activity of inhibitors. Indeed, we have found that some compounds that work well on pure enzyme may perform poorly in whole plasma. Therefore, we have specifically selected and optimized plasma kallikrein inhibitors for potency in plasma.

Diabetic Macular Edema

Disease Overview

DME occurs as a complication of diabetes and is caused by the breakdown of the endothelial barrier function in the retina, resulting in the accumulation of fluid in the macula. This leads to edematous thickening of the macula region of the retina and loss of visual acuity, potentially leading to blindness. DME is a major complication associated with diabetes, affecting an estimated 26% of type 1 diabetic patients after 14 years of the disease, and an estimated 29% over their lifetime; 17% of type 1 diabetic patients were estimated to develop clinically significant macular edema over their lifetime. Approximately 900,000 patients in the United States have active DME and are at serious risk of vision loss, according to a study published in 2015.

The current standard of care for DME in the United States is therapy directed against VEGF, a hypoxia-induced protein that stimulates the growth of blood vessels in the retina. FDA approved anti-VEGF therapies for DME are ranibizumab (Lucentis®) and aflibercept (Eylea®). Both of these products are administered via intravitreal injection at roughly monthly intervals. In addition to treatment by these two products, a large fraction of patients is treated with bevacizumab (Avastin®), another therapy that works through the same mechanism of binding to VEGF but has not been approved for ophthalmic use. Bevacizumab is priced based on its application in oncology and off-label use by retinal specialists typically results in treatment at a fraction of the cost seen with both ranibizumab and aflibercept. Patients are also treated with laser therapy in some circumstances.

A number of other drug therapies are used to treat DME, including corticosteroid anti-inflammatories such as triamcinolone acetonide, fluocinolone, and dexamethasone. These drugs also are administered via intravitreal injection. Sustained release versions of fluocinolone (Illuvien®) and dexamethasone (Ozurdex®) have been approved for use in DME, substantially reducing the number of injections required to obtain and maintain clinical responses. These novel corticosteroid formulations led to 15-letter improvements in visual acuity in approximately 20-30% of patients. Corticosteroid treatment, however, is associated with a dramatic increase in cataract formation and a rise in intraocular pressure, reducing the attractiveness of these agents as potential therapies in many patients.

In a recent large, multi-center clinical trial in DME patients, anti-VEGF therapy led to approximately 20% of patients improving their visual acuity by 15 letters or more after a median of 9 or 10 intravitreal injections, leaving a significant portion of the patients with inadequate control of their disease. Further, in one study conducted for an approved anti-VEGF, 40% of patients displayed minimal improvement in visual acuity following anti-VEGF therapy after months of treatment.

Research into the biology underlying DME by our scientific team has identified plasma kallikrein as a potential novel target for this indication. KalVista scientists were the first to identify increased concentrations of plasma kallikrein in vitreous fluid samples obtained from individuals with diabetic retinopathy and DME and have pioneered the development of plasma kallikrein inhibitors for the treatment of this disease. Our group has established preclinical models to investigate the role of plasma kallikrein in both VEGF-independent and VEGF-mediated DME as well as for underlying pathologies associated with diabetic retinopathy. We have used this in-depth knowledge of the plasma kallikrein system, diabetic retinopathy, and clinical ophthalmology to evaluate the effects of orally available plasma kallikrein inhibitors for the treatment of DME. Using a pharmacology platform,

originally developed and validated using plasma kallikrein knockout mice at the Joslin Diabetes Center and Harvard Medical School, we have screened and characterized the pharmacodynamic effects of KalVista's oral plasma kallikrein inhibitors. We were the first to demonstrate that plasma kallikrein inhibition and gene knockout are protective against VEGF-induced retinal edema.

Using subcutaneously implanted osmotic pumps we have quantified the dose-dependent pharmacodynamic effect of plasma kallikrein inhibitors on VEGF-induced retinal edema and have correlated these effects with both plasma and retinal drug concentrations. Moreover, using gavage we have characterized the pharmacokinetic and pharmacodynamics effects of orally administered plasma kallikrein inhibitors on retinal edema. These models and protocols have enabled detailed characterization and comparison of the effects of multiple oral plasma kallikrein inhibitors on retinal edema.

Our DME Development Activities

Our first potential DME therapy is KVD001. KVD001 is a potent inhibitor of human plasma kallikrein with an IC50 of approximately 10 nM and a high degree of selectivity against a broad range of other proteases. We have developed KVD001 for intravitreal injection because we believe that trials using this delivery modality will provide a relatively early and direct proof-of-concept since the molecule is delivered directly to the site of edema. Since other products such as anti-VEGF therapies are also delivered intravitreally, we believe this will be accepted by both physicians and patients and will not lead to any competitive disadvantages. Another inherent advantage of intravitreal administration is that there is very limited systemic exposure, thus reducing potential systemic safety concerns.

We have completed an open label single ascending dose Phase 1 trial of KVD001 in 14 DME patients, all of whom had previously received anti-VEGF treatment but had discontinued this treatment prior to entry into the study. Following this study, we conducted further preclinical testing to enable multiple monthly injections of KVD001, as well as enable concurrent treatment with KVD001 and anti-VEGF therapy. In 2018 we began recruiting a Phase 2 trial of KVD001 administered by intravitreal injection in DME patients that is now fully enrolled. This study is intended to evaluate the safety and efficacy of KVD001 in patients with DME who have received previous anti-VEGF therapy but continue to demonstrate reduced visual acuity and significant edema. All patients will have discontinued anti-VEGF therapy prior to entry into the study. The double-masked study consists of two active arms receiving low or high dose injections, and a sham control arm. Patients receive a total of four injections over a three-month period, with evaluation at the end of the dosing period and for three months following. The endpoints include safety and tolerability, best corrected visual acuity, central subfield thickness, and the diabetic retinopathy severity scale. We continue to anticipate that data from this study will be available in the second half of 2019.

KVD001 is subject to the Option Agreement with Merck. Under the terms of that Agreement once we provide certain data including results from the study, Merck will have a defined period to exercise the option on KVD001, as well as to make an additional payment to maintain the option on the Oral DME Compounds.

Potential for Oral DME Therapies

In parallel with the clinical development of our intravitreal product candidate KVD001, we intend to identify and advance plasma kallikrein inhibitors as oral therapies for DME. We believe that a safe and effective oral therapy has the potential to transform the treatment of DME which to date has been dominated by drug therapies that must be injected intravitreally. Future trials in DME with oral plasma kallikrein inhibitors may focus on the treatment of earlier stage disease, a stage at which intravitreal injections are not a desirable solution due to their inherently invasive nature and consequent risk of adverse reactions.

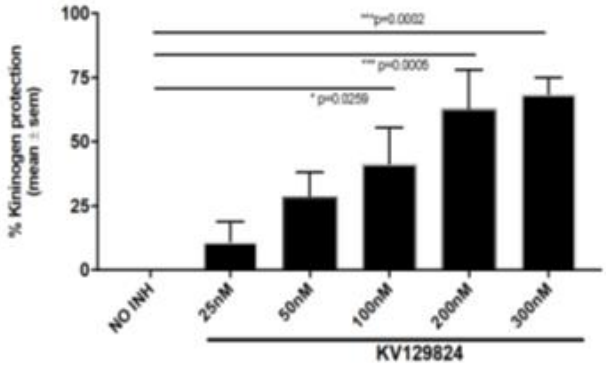
Additional Earlier Stage Programs

In January 2019, we announced the initiation of a first-in-human study for our next clinical stage oral plasma kallikrein inhibitor, KVD824. This ongoing study includes single ascending dose, multiple ascending dose, and food effect cohorts, and tests the drug at dose levels ranging from 10 mg to 1280 mg. The single ascending dose part of the study demonstrated dose-dependent increases in exposure, achieving mean C_{max} concentrations of over 9,000

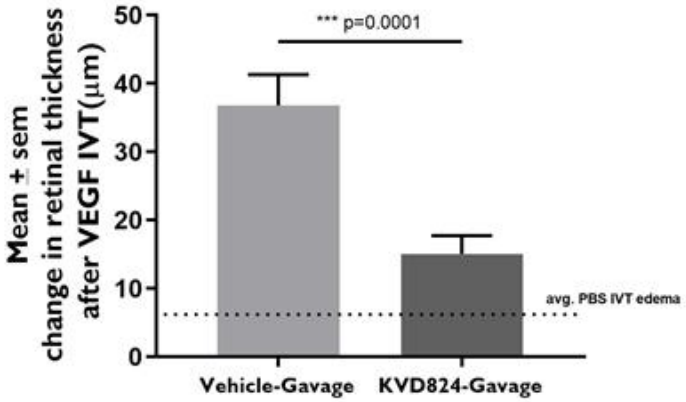
ng/ml at the highest dose studied. The multiple ascending dose part of the study was conducted at doses from 80 mg up to 640 mg twice per day for 5 days. Exposures were consistent between days 1 and 5 at all dose levels. Examination of the blinded safety data across all cohorts, both single and multiple dose, revealed no significant changes in vital signs, ECG or safety laboratory results, there were no dose-limiting tolerability or safety signals reported and all subjects completed the study.

The blood levels achieved in this study, along with other preclinical data we have generated, suggests to us that KVD824 may have potential for development in either HAE or DME. We further believe that there may be an opportunity to formulate KVD824 in such manner as to modify the release characteristics to further optimize its potential in either of these indications. We have initiated that formulation development work, which we anticipate can be completed in 2019. Based upon the results of those efforts, as well as other strategic considerations, additional ongoing preclinical development of other compounds and the results of our ongoing trials in both HAE and DME, we expect to make a final determination of the indication in which to develop KVD824 in early 2020. We are currently planning for a Phase 2 clinical trial for KVD824 that we would seek to initiate in our selected indication in the first half of 2020.

The pharmacology of KVD824 has been studied in pharmacodynamic models of both HAE and DME. For HAE, our pharmacology studies show that KVD824 added exogenously to whole human plasma provides dose dependent protection against HK cleavage following *ex vivo* stimulation with dextran sulfate. The IC50 of KVD824 for dextran sulfate stimulated HK cleavage is approximately 100 nM.



For DME, preclinical studies with KVD824 were performed on mice with retinal edema induced by intravitreal injection of VEGF as an experimental model of DME. Retinal edema was quantified as the increase in retinal thickness at 24 hrs post injection with VEGF compared with baseline and measured by optical coherence tomography (OCT). Oral administration of KVD824 by gavage decreased VEGF-induced retinal edema by 84.6 % compared with mice receiving vehicle (data shown below). A comparable decrease in VEGF-induced edema were demonstrated in mice continuously administered with KVD824 using subcutaneously implanted osmotic pumps. The effects of KVD824 in reducing retinal edema is comparable with the effect of complete plasma prekallikrein gene knockout in reducing VEGF-induced retinal thickening. We have identified the plasma concentrations of KVD824 that are associated with the inhibition of retinal edema in this murine model. Comparison of these data with the pharmacokinetic data from the first in human study with KVD824 indicates that the plasma concentrations KVD824 that associated with a reduction in retinal edema in our preclinical model are achieved by orally administered KVD824 in our MAD study described above.



In addition to our clinical stage candidates, we are continually conducting preclinical development work on multiple additional drug candidates in order to achieve our goal of creating best-in-class oral plasma kallikrein inhibitors for prophylactic HAE therapy, as well as for the treatment of DME. We currently have multiple additional compounds in preclinical testing. We routinely terminate earlier stage programs for any number of reasons that lead us to believe they will not achieve our objectives, and our medicinal chemistry team is constantly developing new potential candidates. We believe this capacity to develop large numbers of candidate compounds is key to success in drug development and represents a core strategic asset of the Company.

Competition

In treating HAE, we expect to face competition from several FDA-approved therapeutics, including Takhzyro™ and Cinryze, marketed by Takeda in the United States and Europe for the prevention of angioedema attacks in adults and adolescents; Firazyr, marketed by Takeda in the United States, Europe and certain other geographic territories for the treatment of acute angioedema attacks in adult patients; Kalbitor, an injectable plasma kallikrein inhibitor marketed by Takeda for the resolution of acute attacks in adolescent and adult HAE patients; Berinert and Haegarda, marketed by CSL Behring for the prophylaxis and treatment of acute abdominal, facial or laryngeal attacks of HAE in adults and adolescents; and Ruconest, marketed by Pharming Group for the treatment of acute angioedema attacks in adult patients. We are also aware of two companies that are engaged in the clinical development of oral plasma kallikrein inhibitors for use as prophylaxis in HAE patients, BioCryst Pharmaceuticals and Attune Pharmaceuticals. BioCryst is also conducting clinical trials of a liquid, orally delivered formulation of BCX7353 for use as on-demand therapy in acute attacks.

In treating DME, we expect to face competition from several FDA-approved therapeutics, including anti-VEGF therapies Lucentis, marketed by Roche and Novartis, Eylea, marketed by Regeneron, and off-label use of Avastin from Roche. We also face competition from various corticoid steroids including extended release formulations lluvien, marketed by Alimera, and Ozurdex, marketed by Allergan. We further expect to compete with generic corticosteroids such as fluocinolone acetonide, and dexamethasone and we are aware of a number of other companies that have product candidates in early clinical trials, including Novartis, GlaxoSmithKline, Boehringer Ingelheim, Roche, Regeneron, Ohr Pharmaceutical, Aerpio Therapeutics, Oxurion and Allegro Ophthalmics. Oxurion recently announced data from a Phase 1 clinical trial of an intravitreally delivered plasma kallikrein inhibitor for the treatment of DME and indicated plans to continue development.

Intellectual Property

Our success substantially depends on our ability to obtain and maintain patents and other forms of intellectual property rights for our product candidates, methods used to manufacture our product candidates and methods for treating patients using our product candidates, as well as our ability to preserve our trade secrets, to prevent third parties from infringing upon our proprietary rights and to operate without infringing upon the proprietary rights of

others. As of April 30, 2019, we are the owner of nine U.S. patents expiring between 2023 and 2034, absent any extensions, as well as eight pending U.S. patent applications. Any patents issuing from the foregoing owned or licensed U.S. applications are expected to expire in between 2034 and 2037, absent any adjustments or extensions. As of April 30, 2019, we owned a total of 119 pending foreign applications and 164 patents in multiple jurisdictions. Any issued patents, or those issuing from these foreign patent applications, are expected to expire between 2023 and 2037, absent any adjustments or extensions. As of April 30, 2019, we also controlled five pending international applications that, if issued, are expected to expire in 2038, absent any adjustments or extensions. The chemical structures of KVD001 and KVD900 are included in composition of matter applications.

KVD001 is covered by U.S. patents and patent applications covering composition of matter, methods of treatment, solid form and clinical formulations. The anticipated expiration dates of these patents, or patents arising from applications, range from 2032 to 2038, absent any adjustments or extensions.

Our portfolio of oral plasma kallikrein inhibitors, including KVD900, is covered by U.S. patent applications and pending international applications covering composition of matter, methods of treatment, solid form and clinical formulations and any patents arising from those applications are expected to expire between 2034 to 2038, absent any adjustments or extensions.

Patents extend for varying periods according to the date of patent filing or grant and the legal term of patents in various countries where patent protection is obtained. The actual protection afforded by a patent, which can vary from country to country, depends on the type of patent, the scope of its coverage and the availability of legal remedies in the country.

We also use other forms of protection, such as trademark, copyright and trade secret protection for our intellectual property, particularly where we do not believe patent protection is appropriate or obtainable. We require our employees, consultants, contractors and other advisors to execute nondisclosure and assignment of invention agreements upon commencement of their respective employment or engagement. In addition, we also require confidentiality or service agreements from third parties that receive confidential information or materials.

Government Regulation and Product Approval

Government authorities in the United States, at the federal, state and local level, and in other countries and jurisdictions, including the United Kingdom and European Union, extensively regulate, among other things, the research, development, testing, manufacture, quality control, approval, packaging, storage, recordkeeping, labeling, advertising, promotion, distribution, marketing, post-approval monitoring and reporting, and import and export of pharmaceutical products. The processes for obtaining regulatory approvals in the United States and in foreign countries and jurisdictions, along with subsequent compliance with applicable statutes and regulations and other regulatory authorities, require the expenditure of substantial time and financial resources.

FDA approval process

In the United States, pharmaceutical products are subject to extensive regulation by the FDA. The Federal Food, Drug, and Cosmetic Act, and other federal and state statutes and regulations, govern, among other things, the research, development, testing, manufacture, storage, recordkeeping, approval, labeling, promotion and marketing, distribution, post-approval monitoring and reporting, sampling, and import and export of pharmaceutical products. Failure to comply with applicable U.S. requirements may subject a company to a variety of administrative or judicial sanctions, such as clinical hold, FDA refusal to approve pending new drug applications (“NDA”), warning or untitled letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, civil penalties, and criminal prosecution.

Pharmaceutical product development for a new product or certain changes to an approved product in the United States typically involves preclinical laboratory and animal tests, the submission to the FDA of an Investigational New Drug (“IND”) application, which must become effective before clinical testing may commence in the United States, and adequate and well-controlled clinical trials to establish the safety and effectiveness of the drug for each indication for which FDA approval is sought. Satisfaction of FDA approval requirements prior to

marketing a pharmaceutical product typically takes many years and the actual time required may vary substantially based upon the type, complexity, and novelty of the product or disease.

Preclinical tests include laboratory evaluation of product chemistry, formulation and manufacturing process, as well as toxicity studies in animals to assess the characteristics and potential safety and efficacy of the product. The conduct of the preclinical tests must comply with federal regulations and requirements, including good laboratory practices and good manufacturing practice ("cGMP"). The results of preclinical testing are submitted to the FDA as part of an IND along with the information on product chemistry, manufacturing and controls, and a proposed clinical trial protocol. For the initial IND submission, a 30-day waiting period after the submission of the IND is required prior to the commencement of the clinical trial in humans. If the FDA has neither commented on nor questioned the IND within this 30-day period, the clinical trial proposed in the IND may begin. For subsequent clinical trial protocols submitted to the IND, there is no mandated review time for FDA. Longer duration pre-clinical studies, for example animal tests of reproductive toxicology and carcinogenicity, if required, will be conducted and submitted to the IND throughout the development of the product until sufficient data is available to support submission of an NDA. Clinical trials involve the administration of the investigational drug to healthy volunteers or patients under the supervision of a qualified investigator. Clinical trials must be conducted: (i) in compliance with federal regulations; (ii) in compliance with good clinical practice ("GCP"), an international standard designed to protect the rights, safety and well-being of trial subjects and to define the roles of clinical trial sponsors, administrators and monitors; as well as (iii) under protocols detailing the objectives of the trial, the parameters to be used in monitoring safety, and the effectiveness criteria to be evaluated. Each protocol involving testing on U.S. patients and subsequent protocol amendments must be submitted to the FDA as part of the IND.

The FDA may order the temporary, or permanent, discontinuation of a clinical trial at any time, or impose other sanctions if it believes that the clinical trial either is not being conducted in accordance with FDA requirements or presents an unacceptable risk to the clinical trial patients. The trial protocol and informed consent information for patients in clinical trials must also be submitted to an institutional review board ("IRB"), for approval prior to the start of the clinical trial. An IRB may also require the clinical trial at the site to be halted, either temporarily or permanently, for failure to comply with the IRB's requirements, or may impose other conditions.

Clinical trials to support NDAs for marketing approval are typically conducted in three sequential phases, but the phases may overlap. In Phase 1, the initial introduction of the drug into healthy human subjects or patients, the product is tested to assess metabolism, pharmacokinetics, pharmacological actions, side effects associated with increasing doses, and, if possible, early evidence on effectiveness. Phase 2 usually involves trials in a limited patient population to determine the effectiveness of the drug for a particular indication, dosage tolerance and optimum dose, and to identify common adverse effects and safety risks. If a compound demonstrates evidence of effectiveness and an acceptable safety profile in Phase 2 evaluations, Phase 3 trials are undertaken to obtain the additional information about clinical efficacy and safety in a larger number of patients, typically at geographically dispersed clinical trial sites, to permit the FDA to evaluate the overall benefit risk relationship of the drug and to provide adequate information for the labeling of the product. In most cases, the FDA requires two adequate and well-controlled Phase 3 clinical trials to demonstrate the efficacy of the drug. A single Phase 3 trial with other confirmatory evidence may be sufficient in rare instances where the trial is a large multicenter trial demonstrating internal consistency and a statistically persuasive finding of a clinically meaningful effect on mortality, irreversible morbidity or prevention of a disease with a potentially serious or life-threatening outcome and confirmation of the result in a second trial would be practically or ethically impossible.

The manufacturer of an investigational drug in a Phase 2 or 3 clinical trial for a serious or life- threatening disease is required to make available, such as by posting on its website, its policy on evaluating and responding to requests for expanded access.

After completion of the required clinical testing, an NDA is prepared and submitted to the FDA. FDA approval of the NDA is required before marketing of the product may begin in the United States. The NDA must include the results of all preclinical and clinical data, including pharmacology and toxicology results, and the results of other testing and a compilation of data relating to the product's chemistry, manufacture and controls. The cost of preparing and submitting an NDA is substantial. The submission of most NDAs is additionally subject to a application user fee, and once approved, the NDA is also subject to annual product and establishment user fees. These fees are typically increased annually. The FDA has 60 days from its receipt of an NDA to determine whether

the application will be accepted for filing based on the agency's threshold determination that it is sufficiently complete to permit substantive review. Once the submission is accepted for filing, the FDA begins an in-depth review. The FDA has agreed to certain performance goals in the review of NDAs. Most such applications for standard review drug products are reviewed within ten months of the date the FDA files the NDA; most applications for priority review drugs are reviewed within six months of the date the FDA files the NDA. Priority review can be applied to a drug that the FDA determines has the potential to treat a serious or life-threatening condition and, if approved, would be a significant improvement in safety or effectiveness compared to available therapies. The review process for both standard and priority review may be extended by the FDA for three additional months to consider certain late-submitted information, or information intended to clarify information already provided in the submission.

After the FDA evaluates the NDA and the compliance of manufacturing facilities with GMP, it issues either an approval letter or a complete response letter. A complete response letter generally outlines the deficiencies in the submission and may require substantial additional testing, or information, in order for the FDA to reconsider the application. If, or when, those deficiencies have been addressed to the FDA's satisfaction, the FDA will issue an approval letter. The FDA has committed to reviewing such additional data in two or six months depending on the type of information included. An approval letter authorizes commercial marketing of the drug with specific prescribing information for the indication being supported. As a condition of NDA approval, the FDA may require a risk evaluation and mitigation strategy ("REMS") if it is considered that additional measures are needed to ensure that the benefits of the drug outweigh the potential risks. REMS can include the use of medication guides and communication plans for healthcare professionals, and elements to assure safe use ("ETASU"). ETASU can include, but are not limited to, special training or certification for prescribing or dispensing, dispensing only under certain circumstances, special monitoring, and the use of patient registries. The requirement for a REMS can materially affect the potential market and profitability of the product. Moreover, product approval may require substantial post-approval testing and surveillance to monitor the product's safety or efficacy.

Once granted, product approvals may be withdrawn if compliance with regulatory standards is not maintained or problems are identified following initial marketing. Changes to some of the conditions established in an approved application, including changes in indications, labeling, or manufacturing processes or facilities, require submission and FDA approval of a new NDA or NDA supplement before the change can be implemented. An NDA supplement for a new indication typically requires clinical data similar to that in the original application, and the FDA uses the same procedures and actions in reviewing NDA supplements as it does in reviewing NDAs.

Foreign clinical studies to support an NDA

The FDA will accept as support for marketing approval of a product (NDA) well-designed, well-conducted, clinical studies conducted outside of the United States if the studies have been conducted in accordance with the exact same standards of GCP, as required in the United States, and the protocol was submitted to the IND. FDA may validate the data from the study through an onsite inspection, if necessary. Clinical studies conducted outside the United States are subject to the same rigorous regulatory controls as the United States (see "— Europe / rest of world government regulation" below).

A sponsor or applicant who wishes to rely on a non-IND foreign clinical study to support an IND must submit documentation to the FDA to demonstrate compliance with GCP. The FDA may also request to inspect a foreign clinical study site to confirm compliance.

Orphan drug designation

Under the Orphan Drug Act, the FDA may grant orphan drug designation to a compound with the potential to treat a rare disease or condition, generally a 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 making a product available in the United States for such disease or condition will be recovered from sales of the product.

Orphan drug designation must be requested prior to submitting an NDA. After the FDA grants orphan drug designation, the generic identity of the compound 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 of an NDA. The first NDA applicant to receive FDA approval for a drug product containing a compound that has FDA orphan drug designation is entitled to a seven-year exclusive marketing period in the United States for that drug product for that orphan indication. During the seven-year exclusivity period, the FDA may not approve any other applications to market a drug product containing the same active moiety for the same disease, except in limited circumstances, such as a showing of clinical superiority to the product with orphan drug exclusivity. A product is clinically superior if it is safer, more effective or makes a major contribution to patient care. Orphan drug exclusivity does not prevent the FDA from approving a drug product containing a different active moiety for the same disease or condition, or the same drug product for a different disease or condition. Among the other benefits of orphan drug designation are tax credits for certain research and a waiver of the NDA user fee.

Disclosure of clinical trial information

Sponsors of clinical trials of FDA-regulated products, including drugs, are required to register and disclose certain clinical trial information. Information related to the product, patient population, phase of investigation, trial 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 in certain circumstances for up to two years after the date of completion of the trial. Competitors may use this publicly available information to gain knowledge regarding the progress of development programs.

Pediatric information

Under the Pediatric Research Equity Act ("PREA") NDAs or supplements to NDAs must contain data to assess the safety and effectiveness of the drug for the claimed indications in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the drug product is safe and effective. The FDA may grant full or partial waivers, or deferrals, for submission of data. Unless otherwise required by regulation, PREA does not apply to any drug product for an indication for which orphan designation has been granted.

Post-approval requirements

Once an NDA is approved, a product will be subject to certain post-approval requirements. For instance, the FDA closely regulates the post-approval marketing and promotion of drugs, including standards and regulations for direct-to-consumer advertising, off-label promotion, industry-sponsored scientific and educational activities and promotional activities involving the internet. Drugs may be marketed only for the approved indications and in accordance with the provisions of the approved labeling.

Adverse event reporting and submission of periodic reports is required following FDA approval of an NDA. The FDA also may require post-marketing testing, known as Phase 4 testing, REMS, and surveillance to monitor the effects of an approved product, or the FDA may place conditions on an approval that could restrict the distribution or use of the product. In addition, quality control, drug product manufacture, packaging, and labeling procedures must continue to conform to cGMPs after approval. Drug manufacturers and certain of their subcontractors are required to register their establishments with the FDA and certain state agencies. Registration with the FDA subjects entities to periodic unannounced inspections by the FDA, during which the agency inspects manufacturing facilities to assess compliance with cGMPs. Accordingly, manufacturers must continue to expend time, money, and effort in the areas of production and quality-control to maintain compliance with cGMPs. Regulatory authorities may withdraw product approvals or request product recalls if a company fails to comply with regulatory standards, or if previously unrecognized problems are subsequently discovered.

Other U.S. healthcare laws and compliance requirements

In the United States, our activities are potentially subject to regulation by various federal, state and local authorities in addition to the FDA, including but not limited to, the Centers for Medicare and Medicaid Services ("CMS"), other divisions of the U.S. Department of Health and Human Services (such as the Office of Inspector

General), the U.S. Department of Justice ("DOJ"), and individual U.S. Attorney offices within the DOJ, and state and local governments. For example, sales, marketing and scientific/educational grant programs may have to comply with the anti-fraud and abuse provisions of the Social Security Act, the false claims laws, the privacy and security provisions of the Health Insurance Portability and Accountability Act ("HIPAA"), and similar state laws, each as amended, as applicable.

The federal Anti-Kickback Statute prohibits, among other things, any person or entity, from knowingly and willfully offering, paying, soliciting or receiving any remuneration, directly or indirectly, overtly or covertly, in cash or in kind, to induce or in return for purchasing, leasing, ordering or arranging for the purchase, lease or order of any item or service reimbursable under Medicare, Medicaid or other federal healthcare programs. The Patient Protection and Affordable Care Act as amended by the Health Care and Education Reconciliation Act, collectively, the ACA, amended the intent element of the federal statute so that a person or entity no longer needs to have actual knowledge of the statute or specific intent to violate it in order to commit a violation. This statute has been interpreted broadly to include anything of value. The Anti-Kickback Statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on one hand and prescribers, purchasers, and formulary managers on the other. There are a number of statutory exceptions and regulatory safe harbors protecting certain common activities from prosecution or other regulatory sanctions. The exceptions and safe harbors are drawn narrowly and practices that involve remuneration that may be alleged to be intended to induce prescribing, purchasing or recommending may be subject to scrutiny if they do not qualify for an exception or safe harbor.

Federal civil and criminal false claims laws, including the federal False Claims Act, prohibit, among other things, any person or entity from knowingly presenting, or causing to be presented, a false or fraudulent claim for payment to the federal healthcare programs, including Medicare and Medicaid, or knowingly making, using, or causing to be made or used a false record or statement material to a false or fraudulent claim to the federal government. This includes claims made to programs where the federal government. reimburses, such as Medicaid, as well as programs where the federal government is a direct purchaser, such as when it purchases off the Federal Supply Schedule. Recently, several pharmaceutical and other healthcare companies have been prosecuted under these laws for allegedly inflating drug prices they report to pricing services, which in turn were used by the government to set Medicare and Medicaid reimbursement rates, and for allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product. In addition, certain marketing off-label promotion, may also violate false claims laws. Additionally, PPACA amended the federal Anti-Kickback Statute such that a violation of that statute can serve as a basis for liability under the federal False Claims Act. The majority of states also have similar fraud and abuse 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. Additionally, to the extent that any of our products are sold in a foreign country, we may be subject to similar foreign laws.

Other federal statutes pertaining to healthcare fraud and abuse include the civil monetary penalties statute, which prohibits, among other things, the offer or payment of remuneration to a Medicaid or Medicare beneficiary that the offerer or payor knows or should know is likely to influence the beneficiary to order a receive a reimbursable item or service from a particular supplier, and the additional federal criminal statutes created by the Health Insurance Portability and Accountability Act of 1996, or HIPAA, which prohibits, among other things, knowingly and willfully executing or attempting to execute a scheme to defraud any healthcare benefit program or obtain by means of false or fraudulent pretenses, representations or promises any money or property owned by or under the control of any healthcare benefit program in connection with the delivery of or payment for healthcare benefits, items or services.

In addition, HIPAA, as amended by HITECH, imposes obligations on certain healthcare providers, health plans, and healthcare clearinghouses, known as covered entities, as well as their business associates that perform certain services involving the storage, use or disclosure of individually identifiable health information, including mandatory contractual terms, with respect to safeguarding the privacy, security, and transmission of individually identifiable health information, and require notification to affected individuals and regulatory authorities of certain breaches of security of individually identifiable health information.

Further, pursuant to PPACA, the Centers for Medicare & Medicaid Services, or CMS, has issued a final rule that requires manufacturers of prescription drugs to collect and report information on certain payments or transfers

of value to physicians and teaching hospitals, as well as investment interests held by physicians and their immediate family members. The first reports were due in 2014 and must be submitted on an annual basis. The reported data is made available in searchable form on a public website on an annual basis.

Additionally, the federal Physician Payments Sunshine Act within the ACA, and its implementing regulations, require that certain manufacturers of drugs, devices, biological and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) report annually to CMS 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. Moreover, the Drug Supply Chain Security Act imposes new obligations on manufacturers of pharmaceutical products related to product tracking and tracing. Legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for pharmaceutical products.

In order to distribute products commercially, we must comply with state laws that require the registration of manufacturers and wholesale distributors of drug products in a state, including, in certain states, manufacturers and distributors who ship products into the state even if such manufacturers or distributors have no place of business within the state. Some states also impose requirements on manufacturers and distributors to establish the pedigree of product in the chain of distribution, including some states that require manufacturers and others to adopt new technology capable of tracking and tracing product as it moves through the distribution chain. Several states have enacted legislation requiring pharmaceutical and biotechnology companies to establish marketing compliance programs, file periodic reports with the state, make periodic public disclosures on sales, marketing, pricing, clinical trials and other activities, and/or register their sales representatives, as well as to prohibit pharmacies and other healthcare entities from providing certain physician prescribing data to pharmaceutical and biotechnology companies for use in sales and marketing, and to prohibit certain other sales and marketing practices. All of our activities are potentially subject to federal and state consumer protection and unfair competition laws.

If our operations are found to be in violation of any of the federal and state healthcare laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including without limitation, civil, criminal and/or administrative penalties, damages, fines, disgorgement, exclusion from participation in government programs, such as Medicare and Medicaid, injunctions, private "qui tam" actions brought by individual whistleblowers in the name of the government, or refusal to allow us to enter into government contracts, contractual damages, reputational harm, administrative burdens, diminished profits and future earnings, 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.

Coverage, pricing and reimbursement

Significant uncertainty exists as to the coverage and reimbursement status of any product candidates for which we 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 extent to which third party payors provide coverage, and establish adequate reimbursement levels for such products. In the United States, third party payors include federal and state healthcare programs, private managed care providers, health insurers and other organizations. The process for determining whether a third party payor will provide coverage for a product may be separate from the process for setting the price of a product or for establishing the reimbursement rate that such a payor will pay for the product. Third party payors may limit coverage to specific products on an approved list, also known as a formulary, which might not include all of the FDA-approved products for a particular indication. Third party payors are increasingly challenging the price, examining the medical necessity and reviewing the cost-effectiveness of medical products, therapies and services, in addition to questioning their safety and efficacy. We may need to conduct expensive pharmacoeconomic studies in order to demonstrate the medical necessity and cost-effectiveness of its products, 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 product does not imply that an adequate reimbursement rate will be approved. Further, one payor's determination to provide coverage for a product does not assure that other payors will also provide coverage for the product. Adequate third

party reimbursement may not be available to enable us to maintain price levels sufficient to realize an appropriate return on its investment in product development.

Different pricing and reimbursement schemes exist in other countries. In the EU, governments influence the price of pharmaceutical products through their pricing and reimbursement rules and control of national health care systems that fund a large part of the cost of those products to consumers. Some jurisdictions operate positive and negative list systems under which products may only be marketed once a reimbursement price has been agreed. To obtain reimbursement or pricing approval, some of these countries may require the completion of clinical trials that compare the cost effectiveness of a particular product candidate to currently available therapies. Other member states allow companies to fix their own prices for medicines but monitor and control company profits. The downward pressure on health care costs has become intense. As a result, increasingly high barriers are being erected to the entry of new products. In addition, in some countries, cross-border imports from low-priced markets exert a commercial pressure on pricing within a country.

The marketability of any product candidates for which we receive regulatory approval for commercial sale may suffer if the government and third party payors fail to provide adequate coverage and reimbursement. In addition, emphasis on managed care in the United States has increased and we expect will continue to increase the pressure on healthcare pricing. Coverage policies and third party reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is attained for one or more products for which we receive regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

Healthcare reform

In March 2010, President Obama enacted the ACA, which has the potential to substantially change healthcare financing and delivery by both governmental and private insurers, and significantly impacts the pharmaceutical and biotechnology industry.

Among the ACA provisions of importance to the pharmaceutical industries, in addition to those otherwise described above, are the following:

- an annual, nondeductible fee on any entity that manufactures or imports certain specified branded prescription drugs apportioned among these entities according to their market share in some government healthcare programs that began in 2011;
- an increase in the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program, retroactive to January 1, 2010, to 23.1% and 13% of the average manufacturer price for most branded and generic drugs, respectively and capped the total rebate amount for innovator drugs at 100% of the Average Manufacturer Price;
- a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturers' outpatient drugs to be covered under Medicare Part D;
- 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 beginning in 2014 and by adding new mandatory eligibility categories for individuals with income at or below 133% of the federal poverty level, thereby potentially increasing manufacturers' Medicaid rebate liability;
- expansion of the entities eligible for discounts under the Public Health Service pharmaceutical pricing program;
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research;

- 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 new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted, or injected;
- requirements to report certain financial arrangements with physicians and teaching hospitals; and
- a requirement to annually report certain information regarding drug samples that manufacturers and distributors provide to physicians.

The current U.S. presidential administration and Congress have sought, and we expect will continue to seek, to modify, repeal, or otherwise invalidate all, or certain provisions of, the ACA. Since January 2017, the current U.S. presidential administration has issued two executive orders and other directives designed to delay the implementation of certain provisions of the ACA or otherwise circumvent some of the requirements for health insurance mandated by the ACA. For example, on October 12, 2017, the current U.S. presidential administration issued an executive order that expands the use of association health plans and allows anyone to purchase short-term health plans that provide temporary, limited insurance. This executive order also calls for the halt of federal payments to health insurers for cost-sharing reductions previously available to lower-income Americans to afford coverage. There is still uncertainty with respect to the impact this executive order could have on coverage and reimbursement for healthcare items and services covered by plans that were authorized by the ACA. Concurrently, Congress has considered legislation that would repeal or repeal and replace all or part of the ACA. While Congress has not passed comprehensive repeal legislation, two bills affecting the implementation of certain taxes under the ACA have been signed into law. The Tax Cuts and Jobs Act of 2017, among other things, includes a provision repealing, effective January 1, 2019, the tax-based shared responsibility payment imposed by the ACA on certain individuals who fail to maintain qualifying health coverage for all or part of a year that is commonly referred to as the “individual mandate”. Additionally, on January 22, 2018, the current U.S. presidential administration signed a continuing resolution on appropriations for fiscal year 2018 that delayed the implementation of certain ACA-mandated fees, including the so-called “Cadillac” tax on certain high cost employer-sponsored insurance plans, the annual fee imposed on certain health insurance providers based on market share, and the medical device excise tax on non-exempt medical devices. Further, the Bipartisan Budget Act of 2018, or the BBA, among other things, amends the ACA, effective January 1, 2019, to increase from 50 percent to 70 percent the point-of-sale discount that is owed by pharmaceutical manufacturers who participate in Medicare Part D and to close the coverage gap in most Medicare drug plans, commonly referred to as the “donut hole”. There is still uncertainty with respect to the impact the current U.S. presidential administration and the Congress may have, if any, and any changes will likely take time to unfold, and could have an impact on coverage and reimbursement for healthcare items and services covered by plans that were authorized by the ACA. However, we cannot predict the ultimate content, timing or effect of any healthcare reform legislation or the impact of potential legislation on us.

In addition, other legislative changes have been proposed and adopted in the United States since the ACA was enacted. For example, in August 2011, the President signed into law the Budget Control Act of 2011, which, among other things, created the Joint Select Committee on Deficit Reduction to recommend to Congress proposals in spending reductions. The Joint Select Committee on Deficit Reduction did not achieve a targeted deficit reduction of at least $1.2 trillion for fiscal years 2012 through 2021, triggering the legislation’s automatic reduction to several government programs. This includes aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, which went into effect beginning on April 1, 2013 and will stay in effect through 2025 unless additional Congressional action is taken. Additionally, in January 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, reduced Medicare payments to several providers, including hospitals and imaging centers. These new laws may result in additional reductions in Medicare and other healthcare funding, which could have a material adverse effect on customers for our products, if approved, and, accordingly, our financial operations.

The Foreign Corrupt Practices Act

The Foreign Corrupt Practices Act (“FCPA”) prohibits any U.S. individual or business from paying, offering, or authorizing payment or offering of anything of value, directly or indirectly, to any foreign official, political party or candidate for the purpose of influencing any act or decision of the foreign entity in order to assist the individual or

business in obtaining or retaining business. The FCPA also obligates companies whose securities are listed in the United States to comply with accounting provisions requiring us to maintain books and records that accurately and fairly reflect all transactions of the corporation, including international subsidiaries, and to devise and maintain an adequate system of internal accounting controls for international operations.

Additional regulation

In addition to the foregoing, state and federal laws regarding environmental protection and hazardous substances, including the Occupational Safety and Health Act, the Resource Conservancy and Recovery Act and the Toxic Substances Control Act, affect our business. These and other laws govern the 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.

Europe / rest of world government regulation

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 trials and any commercial sales and distribution of our products. Whether or not we obtain FDA approval of a product, we must obtain the requisite approvals from regulatory authorities in foreign countries prior to the commencement of clinical trials or marketing of the product in those countries. Certain countries outside of the United States have a similar process that requires the submission of a clinical trial application much like the IND prior to the commencement of human clinical trials. In the European Union, for example, a clinical trial application must be submitted to each country's national health authority and an independent ethics committee, much like the FDA and IRB, respectively. Once the clinical trial application is approved in accordance with a country's requirements, clinical trial development may proceed. The requirements and process governing the conduct of clinical trials, product licensing, pricing and reimbursement vary from country to country in the European Union. In all cases, the clinical trials are conducted in accordance with GCP and the applicable regulatory requirements and the ethical principles that have their origin in the Declaration of Helsinki.

To obtain regulatory approval of a drug product under European Union regulatory systems, we must submit a marketing authorization application (MAA). The documentation submitted to the FDA in support of an NDA in the United States is almost identical to that required in the European Union, with the exception of, among other things, country-specific document requirements. For other countries outside of the European Union, such as countries in Eastern Europe, Latin America or Asia, the requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary from country to country. In all cases, again, the clinical trials are conducted in accordance with GCP and the applicable regulatory requirements and the ethical principles that have their origin in the Declaration of Helsinki.

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

Other regulations

We are subject to numerous federal, state and local laws relating to such matters as safe working conditions, manufacturing practices, environmental protection, fire hazard control, and disposal of hazardous or potentially hazardous substances. We may incur significant costs to comply with such laws and regulations now or in the future.

Employees

As of April 30, 2019, we had a total of 45 full-time employees, of whom 18 were located in the United States and 27 were located in the United Kingdom. None of our employees are represented by a labor union or covered by

a collective bargaining agreement. We have not experienced any work stoppages and consider our relations with employees to be good.

Corporate Information

Our principal executive offices are located at 55 Cambridge Parkway, Ste 901E, Cambridge, MA 02142, and our telephone number is (857) 999-0075. Our website address is www.kalvista.com. The information contained on, or that can be accessed through, our website is not a part of this report. We have included our website address in this report solely as an inactive textual reference.

Financial Information

We manage our operations and allocate resources as a single reporting segment. Financial information regarding our operations, assets and liabilities, including our net loss for the years ended April 30, 2019, 2018 and 2017 and our total assets as of April 30, 2019 and 2018, is included in our Consolidated Financial Statements in Item 8 of this Annual Report.

Available Information

We file annual, quarterly, and current reports, proxy statements, and other documents with the Securities and Exchange Commission ("SEC") under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), which are available on our corporate website at www.kalvista.com. Also, the SEC maintains an Internet website that contains reports, proxy and information statements, and other information regarding issuers, including us, that file electronically with the SEC. The public can obtain any documents that we file with the SEC at www.sec.gov. The information posted on or accessible through these websites are not incorporated into this filing.

Item 1A. Risk Factors

Investing in our common stock involves a high degree of risk. You should consider carefully the risks and uncertainties described below, together with all of the other information in this Annual Report on Form 10-K, including the consolidated financial statements, the notes thereto and the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this Annual Report on Form 10-K before deciding whether to invest in shares of our common stock. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties that we are unaware of or that we deem immaterial may also become important factors that adversely affect our business. If any of the following risks actually occur, our business, financial condition, results of operations and future prospects could be materially and adversely affected. In that event, the market price of our stock could decline, and you could lose part or all of your investment.

Risks Related to Our Business

We have incurred significant losses since our inception. We expect to incur losses over the next several years and may never achieve or maintain profitability.

Since inception, we have incurred significant operating losses as we focused on our discovery efforts and developing our product candidates. We expect that it will be many years, if ever, before we have a product candidate ready for commercialization. To date, we have financed our operations primarily through sales of our stock, the Merck Agreement and associated private placement, and through the share purchase transaction with Carbylan. We expect to continue to incur significant expenses and increasing operating losses for the foreseeable future. We anticipate that our expenses will increase substantially if and as we:

- continue clinical development of our current product candidates;
- seek to identify additional product candidates;
- acquire or in-license other products and technologies or enter into collaboration arrangements with regards to product discovery;

- initiate clinical trials for additional product candidates;
- seek marketing approvals for our product candidates that successfully complete clinical trials;
- establish a sales, marketing and distribution infrastructure to commercialize any products for which we may obtain marketing approval;
- maintain, expand and protect our intellectual property portfolio;
- hire additional personnel;
- add operational, financial and management information systems and personnel, including personnel to support our product development and planned future commercialization efforts; and
- continue to incur increased costs as a result of operating as a public company.

To become and remain profitable, we must develop and eventually commercialize a product or products with significant market potential. This will require us to be successful in a range of challenging activities, including completing clinical trials of our product candidates, obtaining marketing approval for these product candidates and manufacturing, marketing and selling those products for which we may obtain marketing approval. We may never succeed in these activities and, even if we do, we may never generate revenues that are significant or large enough to achieve profitability. If we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to become and remain profitable would decrease the value of our business and could impair our ability to raise capital, maintain our discovery and preclinical development efforts, expand our business or continue our operations and may require us to raise additional capital that may dilute the ownership interest of common stockholders. A decline in the value of our business could also cause stockholders to lose all or part of their investment.

Our short operating history may make it difficult to evaluate the success of our business to date and to assess our future viability.

We are an early stage clinical development company and our operations to date have been limited to organizing and staffing, business planning, raising capital, acquiring and developing the technology, identifying potential product candidates, undertaking preclinical studies and early stage clinical studies of our most advanced product candidates, KVD001 and KVD900, which are currently in Phase 2 clinical trials. We have not yet demonstrated our ability to successfully complete large-scale, pivotal clinical trials, obtain marketing approvals, manufacture a commercial scale product or arrange for a third party to do so on our behalf, or conduct sales and marketing activities necessary for successful product commercialization. Substantial time is required to develop a new medicine from the time it is discovered to when it is available for treating patients. Consequently, any predictions made about our future success or viability based on our short operating history to date may not be as accurate as they could be if we had a longer operating history.

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

We will need substantial additional funding. If we are unable to raise capital when needed, we may need to delay, reduce or eliminate our product development programs or commercialization efforts.

We expect our expenses to increase in parallel with our ongoing activities, particularly as we continue our discovery and preclinical development collaborations to identify new clinical candidates and initiate clinical trials of, and seek marketing approval for, our product candidates. In addition, if we obtain marketing approval for any of our product candidates, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing and distribution. Accordingly, we will need to obtain substantial additional funding for our continuing operations. If we are unable to raise capital when needed or on attractive terms, we may be forced to delay, reduce or eliminate our discovery and preclinical development programs or any future commercialization efforts.

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

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of equity offerings and debt financings. We do not have any committed external source of funds. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of common stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of common stockholders. Debt financing and preferred equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends.

Risks Related to the Discovery and Development of Our Product Candidates

We are very early in our development efforts. If we or our collaborators are unable to successfully develop and commercialize one or more of our compounds, or if we experience significant delays in doing so, the business will be materially harmed.

We currently do not have any products that have gained regulatory approval. We have invested substantially all of our efforts and financial resources in identifying potential drug candidates and funding our preclinical and clinical studies. Our ability to generate product revenues, which we do not expect will occur for many years, if ever, will depend heavily on the successful development and eventual commercialization of our early stage product candidates.

We have not yet demonstrated an ability to successfully overcome many of the risks and uncertainties frequently encountered by companies in new and rapidly evolving fields, particularly in the biopharmaceutical area. For example, to execute our business plan, we will need to successfully:

- execute ongoing clinical development activities;
- move other product candidates into development;
- obtain required regulatory approvals for the development and commercialization of one or more of our product candidates;
- maintain, leverage and expand our intellectual property portfolio;
- build and maintain robust sales, distribution and marketing capabilities, either on our own or in collaboration with strategic partners;
- gain market acceptance for one or more of our product candidates;
- develop and maintain any strategic relationships we elect to enter into, including the agreement with Merck; and
- manage our spending as costs and expenses increase due to drug discovery, preclinical development, clinical trials, regulatory approvals and commercialization.

If we are unsuccessful in accomplishing these objectives, we may not be able to successfully develop and commercialize KVD001, KVD900 or other product candidates, and our business will suffer.

Clinical drug development involves a lengthy and expensive process, with an uncertain outcome. We may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of our product candidates.

We have only recently commenced clinical development of our product candidates and the risk of failure for all of our product candidates is high. Before obtaining marketing approval from regulatory authorities for the sale of any product candidate, we must complete preclinical development and then conduct extensive clinical trials to demonstrate the safety and efficacy of its product candidates in humans. Clinical testing is expensive, difficult to design and implement and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the clinical trial process. Further, the results of preclinical studies and early clinical trials of

our product candidates may not be predictive of the results of later-stage clinical trials, and interim results of a clinical trial do not necessarily predict final results. Moreover, preclinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that have believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing approval of their products. It is impossible to predict when or if any of our product candidates will prove effective or safe in humans or will receive regulatory approval.

We may experience delays in our clinical trials and we do not know whether planned clinical trials will begin or enroll subjects on time, need to be redesigned or be completed on schedule, if at all. There can be no assurance that the Medicines & Healthcare products Regulatory Agency (the "MHRA"), the U.K. regulatory authority, the European Medicines Agency (the "EMA") or the U.S. Food and Drug Administration (the "FDA") will not put any of our product candidates on clinical hold in the future. We may experience numerous unforeseen events during, or as a result of, clinical trials that could delay or prevent our ability to receive marketing approval or commercialize our product candidates. Clinical trials may be delayed, suspended or prematurely terminated for a variety of reasons, such as:

- delay or failure in reaching agreement with the MHRA, EMA, FDA or a comparable foreign regulatory authority on a trial design that we want to execute;
- delay or failure in obtaining authorization to commence a trial or inability to comply with conditions imposed by a regulatory authority regarding the scope or design of a clinical study;
- delays in reaching, or failure to reach, agreement on acceptable clinical trial contracts or clinical trial protocols with prospective trial sites;
- inability, delay, or failure in identifying and maintaining a sufficient number of trial sites, many of which may already be engaged in other clinical programs;
- delay or failure in recruiting and enrolling suitable subjects to participate in a trial;
- delay or failure in having subjects complete a trial or return for post-treatment follow-up;
- clinical sites and investigators deviating from trial protocol, failing to conduct the trial in accordance with regulatory requirements, or dropping out of a trial;
- the withdrawal of the United Kingdom from the European Union could materially impact the regulatory regime with respect to clinical trials in the United Kingdom or the European Union;
- lack of adequate funding to continue the clinical trial, including the incurrence of unforeseen costs due to enrollment delays, requirements to conduct additional clinical studies and increased expenses associated with the services of its clinical research organizations ("CROs") and other third parties;
- clinical trials of our product candidates may produce negative or inconclusive results, and we may decide, or regulators may require us to conduct additional clinical trials or abandon product development programs;
- the number of patients required for clinical trials of our product candidates may be larger than we anticipate, enrollment in these clinical trials may be slower than we anticipate or participants may drop out of these clinical trials at a higher rate than we anticipate;
- we may experience delays or difficulties in the enrollment of patients that our product candidates are designed to target;
- our third party contractors may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all;
- we may have difficulty partnering with experienced CROs that can identify patients that our product candidates are designed to target and run our clinical trials effectively;
- regulators or institutional review boards ("IRBs") may require that we or our investigators suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements or a finding that the participants are being exposed to unacceptable health risks;

- the cost of clinical trials of our product candidates may be greater than we anticipate;
- the supply or quality of our product candidates or other materials necessary to conduct clinical trials of our product candidates may be insufficient or inadequate; or
- there may be changes in governmental regulations or administrative actions.

If we are required to conduct additional clinical trials or other testing of our product candidates beyond those that we currently contemplate, if we are unable to successfully complete clinical trials of our product candidates or other testing, if the results of these trials or tests are not positive or are only modestly positive or if there are safety concerns, we may:

- be delayed in obtaining marketing approval for our product candidates;
- not obtain marketing approval at all;
- obtain approval for indications or patient populations that are not as broad as intended or desired;
- obtain approval with labeling that includes significant use or distribution restrictions or safety warnings that would reduce the potential market for our products or inhibit our ability to successfully commercialize our products;
- be subject to additional post-marketing restrictions and/or testing requirements; or
- have the product removed from the market after obtaining marketing approval.

Our product development costs will also increase if we experience delays in testing or marketing approvals. We do not know whether any of our preclinical studies or clinical trials will need to be restructured or will be completed on schedule, or at all. Significant preclinical or clinical trial delays also could shorten any periods during which we may have the exclusive right to commercialize our product candidates or allow our competitors to bring products to market before we do and impair our ability to successfully commercialize our product candidates and may harm our business and results of operations.

If we experience delays or difficulties in the enrollment of patients in clinical trials, our receipt of necessary regulatory approvals could be delayed or prevented and expenses for development of our product candidates could increase.

We may not be able to initiate or continue clinical trials for our product candidates if we are unable to locate and enroll a sufficient number of eligible patients to participate in these trials to demonstrate safety and efficacy. We are conducting clinical trials of KVD001, KVD900 and KVD824, and we do not know whether planned or ongoing clinical trials will enroll subjects in a timely fashion, require redesign of essential trial elements or be completed on our projected schedule. In particular, because we are focused on patients with HAE, which is a rare disease, our ability to enroll eligible patients in trials may be limited or may result in slower enrollment than we anticipate. In addition, competitors have ongoing clinical trials for product candidates that treat the same indications as our product candidates, and patients who would otherwise be eligible for our clinical trials may instead enroll in clinical trials of our competitors' product candidates. Our inability to enroll a sufficient number of patients for our clinical trials would result in significant delays and could require us to abandon one or more clinical trials altogether.

Patient enrollment is affected by other factors including:

- the eligibility criteria for the study in question;
- the perceived risks and benefits of the product candidate under study;
- the efforts to facilitate timely enrollment in clinical trials;
- the inability to identify and maintain a sufficient number of trial sites, many of which may already be engaged in other clinical trial programs, including some that may be for the same disease indication;
- the patient referral practices of physicians;

- the proximity and availability of clinical trial sites for prospective patients;
- ambiguous or negative interim results of our clinical trials, or results that are inconsistent with earlier results;
- feedback from the MHRA, EMA, FDA, IRBs, data safety monitoring boards, or a comparable foreign regulatory authority, or results from earlier stage or concurrent preclinical and clinical studies, that might require modifications to the protocol;
- decisions by the MHRA, EMA, FDA, IRBs, a comparable foreign regulatory authority or us, or recommendations by data safety monitoring boards, to suspend or terminate clinical trials at any time for safety issues or for any other reason; and
- unacceptable risk-benefit profile or unforeseen safety issues or adverse effects.

Enrollment delays in our clinical trials may result in increased development costs for our product candidates, which would cause the value of the company to decline and limit our ability to obtain additional financing.

If we do not achieve our projected development goals in the timeframes we announce and expect, the commercialization of our products may be delayed and, as a result, our stock price may decline.

From time to time, we estimate the timing of the anticipated accomplishment of various scientific, clinical, regulatory and other product development goals, which we sometimes refer to as milestones. These milestones may include the commencement or completion of scientific studies and clinical trials and the submission of regulatory filings. From time to time, we may publicly announce the expected timing of some of these milestones. All of these milestones are and will be based on numerous assumptions. The actual timing of these milestones can vary dramatically compared to our estimates, in some cases for reasons beyond our control. If we do not meet these milestones as publicly announced, or at all, the commercialization of our products may be delayed or never achieved and, as a result, our stock price may decline.

If serious adverse events or unacceptable side effects are identified during the development of our product candidates, we may need to abandon or limit the development of some of our product candidates.

If our product candidates are associated with undesirable effects in preclinical or clinical trials or have characteristics that are unexpected, we may need to interrupt, delay or abandon their development or limit development to more narrow uses or subpopulations in which the undesirable side effects or other characteristics are less prevalent, less severe or more acceptable from a risk-benefit perspective. There are risks inherent in the intravitreal administration of drugs like KVD001 which can cause injury to the eye and other complications. Our HAE programs, including KVD900, are in the early stage of clinical testing and we have not yet determined what, if any, significant side effects may occur from dosing. Additional or more severe side effects may be identified for all our programs through further clinical studies. These or other drug-related side effects could affect patient recruitment or the ability of enrolled subjects to complete the trial or result in potential product liability claims. Any of these occurrences may harm our business, financial condition and prospects significantly.

Risks Related to Regulatory Approval of Our Product Candidates and Other Legal Compliance Matters

If we are not able to obtain, or if there are delays in obtaining, required regulatory approvals, we will not be able to commercialize our product candidates, and our ability to generate revenue will be materially impaired.

Our product candidates must be approved by the FDA pursuant to a new drug application (“NDA”) in the United States and by the EMA and similar regulatory authorities outside the United States prior to commercialization. The process of obtaining marketing approvals, both in the United States and abroad, is expensive and takes many years, if approval is obtained at all, and can vary substantially based upon a variety of factors, including the type, complexity and novelty of the product candidates involved. Failure to obtain marketing approval for a product candidate will prevent us from commercializing the product candidate. We have not received approval to market any of our product candidates from regulatory authorities in any jurisdiction. We have no experience in filing and supporting the applications necessary to gain marketing approvals and expect to rely on third party CROs to assist us in this process. Securing marketing approval requires the submission of extensive preclinical and clinical

data and supporting information to regulatory authorities for each therapeutic indication to establish the product candidate's safety and efficacy. Securing marketing approval also requires the submission of information about the product manufacturing process to, and inspection of manufacturing facilities by, the regulatory authorities. Our product candidates may not be effective, may be only moderately effective or may prove to have undesirable or unintended side effects, toxicities or other characteristics that may preclude us from obtaining marketing approval or prevent or limit commercial use. Regulatory authorities have substantial discretion in the approval process and may refuse to accept any application or may decide that our data are insufficient for approval and require additional preclinical, clinical or other studies. In addition, varying interpretations of the data obtained from preclinical and clinical testing could delay, limit or prevent marketing approval of a product candidate. Changes in marketing approval policies during the development period, changes in or the enactment of additional statutes or regulations, or changes in regulatory review for each submitted product application, may also cause delays in or prevent the approval of an application.

Additionally, on June 23, 2016, the electorate in the United Kingdom voted in favor of leaving the European Union, commonly referred to as Brexit. On March 29, 2017, the country formally notified the European Union of its intention to withdraw pursuant to Article 50 of the Lisbon Treaty. Since a significant proportion of the regulatory framework in the United Kingdom is derived from European Union directives and regulations, the withdrawal of the United Kingdom from the European Union could materially impact the regulatory regime with respect to the approval of KVD001, KVD900 or any of our other product candidates in the United Kingdom or the European Union. Any delay in obtaining, or an inability to obtain, any marketing approvals, as a result of Brexit or otherwise, would prevent us from commercializing KVD001, KVD900 or any of our other product candidates in the United Kingdom and/or the European Union and restrict our ability to generate revenue and achieve and sustain profitability. If any of these outcomes occur, we may be forced to restrict or delay efforts to seek regulatory approval in the United Kingdom and/or European Union for KVD001, KVD900 or any of our other product candidates, which could significantly and materially harm our business.

Any marketing approval we ultimately obtain may be limited or subject to restrictions or post-approval commitments that render the approved product not commercially viable.

If we experience delays in obtaining approval or if we fail to obtain approval of our product candidates, the commercial prospects for our product candidates may be harmed and our ability to generate revenues will be materially impaired.

We may seek orphan drug exclusivity for some of our product candidates, and we may be unsuccessful.

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 as an orphan drug if it is a drug intended to treat a rare disease or condition, which is generally defined as a disease with a patient population of fewer than 200,000 individuals in the United States.

Generally, if a product 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 EMA or the FDA from approving another marketing application for the same drug for the same indication during the period of exclusivity. The applicable period is seven years in the United States and ten years in Europe. The European exclusivity period can be reduced to six years if a drug no longer meets the criteria for orphan drug designation or if the drug 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, if the manufacturer is unable to assure sufficient quantity of the drug to meet the needs of patients with the rare disease or condition.

Even if we obtain orphan drug exclusivity for a product candidate, that exclusivity may not effectively protect the product candidate from competition because different drugs can be approved for the same condition. Even after an orphan drug is approved, the FDA can subsequently approve a different drug for the same condition 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.

A fast track designation by the FDA, even if granted for any of our product candidates, may not lead to a faster development or regulatory review or approval process and does not increase the likelihood that our product candidates will receive marketing approval.

We do not currently have fast track designation for any of our product candidates but may seek such designation. If a drug is intended for the treatment of a serious or life-threatening condition and the drug demonstrates the potential to address unmet medical needs for this condition, the drug sponsor may apply for FDA fast track designation. The FDA has broad discretion whether or not to grant this designation. Even if we believe a particular product candidate is eligible for this designation, we cannot assure that the FDA would decide to grant it. Even if it does receive fast track designation, we may not experience a faster development process, review or approval compared to conventional FDA procedures. The FDA may withdraw fast track designation if it believes that the designation is no longer supported by data from our clinical development program. Many drugs that have received fast track designation have failed to obtain drug approval.

A breakthrough therapy designation by the FDA, even if granted for any of our product candidates, may not lead to a faster development or regulatory review or approval process, and does not increase the likelihood that our product candidates will receive marketing approval.

We do not currently have breakthrough therapy designation for any of our product candidates but may seek such designation. A breakthrough therapy is defined as a drug that is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. For drugs that have been designated as breakthrough therapies, interaction and communication between the FDA and the sponsor can help to identify the most efficient path for development.

Designation as a breakthrough therapy is within the discretion of the FDA. Accordingly, even if we believe, after completing early clinical trials, that one of our product candidates meets the criteria for designation as a breakthrough therapy, the FDA may disagree and instead determine not to make such designation. In any event, the receipt of a breakthrough therapy designation for a product candidate may not result in a faster development process, review or approval compared to drugs considered for approval under conventional FDA procedures and does not assure ultimate approval by the FDA. In addition, even if one or more of our product candidates qualify as breakthrough therapies, the FDA may later decide that such product candidates no longer meet the conditions for qualification.

Failure to obtain marketing approval in international jurisdictions would prevent our product candidates from being marketed abroad.

In order to market and sell our products in the European Union and many other jurisdictions, we or our third party collaborators must obtain separate marketing approvals and comply with numerous and varying regulatory requirements. The approval procedure varies among countries and can involve additional testing. The time required to obtain approval may differ substantially from that required to obtain MHRA or FDA approval. The regulatory approval process outside the United Kingdom and United States generally includes all of the risks associated with obtaining, respectively, MHRA or FDA approval. In addition, in many countries outside the United States, it is required that the product be approved for reimbursement before the product can be approved for sale in that country. We, or these third parties, may not obtain approvals from regulatory authorities outside the United States on a timely basis, if at all. Approval by the MHRA or FDA does not ensure approval by regulatory authorities in other countries or jurisdictions, and approval by one regulatory authority outside the United States does not ensure approval by regulatory authorities in other countries or jurisdictions or by the FDA. We may not be able to file for marketing approvals and may not receive necessary approvals to commercialize our products in any market.

Any product candidate for which we obtain marketing approval will be subject to extensive post-marketing regulatory requirements and could be subject to post-marketing restrictions or withdrawal from the market, and we may be subject to penalties if we fail to comply with regulatory requirements or if we experience unanticipated problems with our products, when and if any of them are approved.

Our product candidates and the activities associated with their development and commercialization, including their testing, manufacture, recordkeeping, labeling, storage, approval, advertising, promotion, sale and distribution, are subject to comprehensive regulation by the MHRA, FDA and other regulatory authorities. In the United States, these requirements include submissions of safety and other post-marketing information and reports, registration and listing requirements, current good manufacturing practices ("cGMP") requirements relating to manufacturing, quality control, quality assurance and corresponding maintenance of records and documents, including periodic inspections by the FDA and other regulatory authority, requirements regarding the distribution of samples to physicians and recordkeeping.

The FDA, or other regulatory authorities, may also impose requirements for costly post-marketing studies or clinical trials and surveillance to monitor the safety or efficacy of the product. The FDA closely regulates the post-approval marketing and promotion of drugs to ensure drugs are marketed only for the approved indications and in accordance with the provisions of the approved labeling. The FDA imposes stringent restrictions on manufacturers' communications regarding use of their products and if we promote our products beyond their approved indications, we may be subject to enforcement action for off-label promotion. Violations of the Federal Food, Drug, and Cosmetic Act relating to the promotion of prescription drugs may lead to investigations alleging violations of federal and state health care fraud and abuse laws, as well as state consumer protection laws.

In addition, later discovery of previously unknown adverse events or other problems with our products, manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may yield various results, including:

- restrictions on such products, manufacturers or manufacturing processes;
- restrictions on the labeling or marketing of a product;
- restrictions on product distribution or use;
- requirements to conduct post-marketing studies or clinical trials;
- warning or untitled letters;
- withdrawal of the products from the market;
- refusal to approve pending applications or supplements to approved applications that we submit;
- recall of products;
- fines, restitution or disgorgement of profits or revenues;
- suspension or withdrawal of marketing approvals;
- refusal to permit the import or export of our products;
- product seizure; or
- injunctions or the imposition of civil or criminal penalties.

Non-compliance with European Union requirements regarding safety monitoring or pharmacovigilance, and with requirements related to the development of products for the pediatric population, can also result in significant financial penalties. Similarly, failure to comply with the European Union's requirements regarding the protection of personal information can also lead to significant penalties and sanctions.

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

In the United States and some foreign jurisdictions, there have been a number of legislative and regulatory changes and proposed changes regarding the healthcare system that could prevent or delay marketing approval of our product candidates, restrict or regulate post-approval activities and affect our ability to profitably sell any product candidates for which we obtain marketing approval.

As an example, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act, (collectively, the "ACA"), was signed into law in 2010 but has continued to be the subject of legislative efforts at revision and repeal. The ACA included a substantial number of major changes to the healthcare system that impact our business, and several other legislations since then, as well as ongoing efforts, have continued to create a complicated planning and operating environment for companies in our industry.

We expect that the ACA, as well as other healthcare reform measures that may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price that we receive for any approved product. Any reduction in reimbursement from Medicare or other government 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 products.

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-marketing testing and other requirements.

Governments outside the United States tend to impose strict price controls, which may adversely affect our revenues, if any.

In some countries, particularly the countries of the European Union, the pricing of prescription pharmaceuticals is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product. To obtain reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost-effectiveness of our product candidate to other available therapies. If reimbursement of our products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our business could be materially harmed.

If we fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could harm our business.

We are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. Our operations involve the use of hazardous and flammable materials, including chemicals and biological materials. Our operations also produce hazardous waste products. We generally contract with third parties for the disposal of these materials and wastes. We cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from its use of hazardous materials, we could be held liable for any resulting damages, and any liability could exceed its resources. We also could incur significant costs associated with civil or criminal fines and penalties for failure to comply with such laws and regulations.

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

In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair our discovery, preclinical development or production efforts. Our failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

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

As with all companies, we are exposed to the risk of employee fraud or other misconduct. Misconduct by employees could include intentional failures to comply with FDA regulations, provide accurate information to the FDA, comply with manufacturing standards we may establish, comply with federal and state healthcare fraud and abuse laws and regulations, report financial information or data accurately or disclose unauthorized activities to us. In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Employee misconduct could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. It is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. 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 material and adverse effect on our business, financial condition, results of operations and prospects, including the imposition of significant civil, criminal and administrative penalties, damages, fines, disgorgement, imprisonment, the curtailment or restructuring of our operations, loss of eligibility to obtain approvals from the FDA, exclusion from participation in government contracting, healthcare reimbursement or other government programs, including Medicare and Medicaid, integrity oversight and reporting obligations, or reputational harm.

Risks Related to the Commercialization of Our Product Candidates

Even if any of our product candidates receives marketing approval, we may fail to achieve the degree of market acceptance by physicians, patients, third party payors and others in the medical community necessary for commercial success.

If any of our product candidates receives marketing approval, we may nonetheless fail to gain sufficient market acceptance by physicians, patients, third party payors and others in the medical community. In addition, physicians, patients and third party payors may prefer other novel products to ours. If our product candidates do not achieve an adequate level of acceptance, we may not generate significant product revenues and we may not become profitable. The degree of market acceptance of our product candidates, if approved for commercial sale, will depend on a number of factors, including:

- the efficacy and safety and potential advantages and disadvantages compared to alternative treatments;
- the ability to offer our products for sale at competitive prices;
- the convenience and ease of administration compared to alternative treatments;
- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;
- the strength of our marketing and distribution support;
- the availability of third party coverage and adequate reimbursement, including patient cost-sharing programs such as copays and deductibles;
- the ability to develop or partner with third-party collaborators to develop companion diagnostics;
- the prevalence and severity of any side effects; and
- any restrictions on the use of our products together with other medications.

In addition, in order to commercialize any product candidates, we must build marketing, sales, distribution, managerial and other non-technical capabilities or make arrangements with third parties to perform these services, and we may not be successful in doing so. If we are unable to enter into such arrangements when needed on acceptable terms or at all, we may not be able to successfully commercialize any of our product candidates that receive regulatory approval or any such commercialization may experience delays or limitations. If we are not successful in commercializing our product candidates, either on our own or through collaborations with one or more third parties, our future product revenue will suffer and we may incur significant additional losses.

We face substantial competition, which may result in others discovering, developing or commercializing competing products before or more successfully than we do.

The development and commercialization of new drug products is highly competitive. We face competition with respect to our current product candidates, and will face competition with respect to any product candidates that we may seek to develop or commercialize in the future, from major pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies worldwide. There are a number of large pharmaceutical and biotechnology companies that currently market and sell products or are pursuing the development of products for the treatment of the disease indications for which we are developing our product candidates. Some of these competitive products and therapies are based on scientific approaches that are the same as or similar to our approach, and others are based on entirely different approaches. Potential competitors also include academic institutions, government agencies and other public and private research organizations that conduct research, seek patent protection and establish collaborative arrangements for research, development, manufacturing and commercialization.

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 side effects, are more convenient or are less expensive than any products that we may develop. 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. Generic products are expected to become available over the coming years, potentially creating pricing pressure. If our product candidates achieve marketing approval, we expect that they will be priced at a significant premium over competitive generic products.

Many of the companies against which we are competing or 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 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.

The insurance coverage and reimbursement status of newly approved products is uncertain. Failure to obtain or maintain adequate coverage and reimbursement for new or current products could limit our ability to market those products and decrease our ability to generate revenue.

The availability and extent of reimbursement by governmental and private payors is essential for most patients to be able to afford expensive treatments. Sales of our product candidates will depend substantially, both domestically and abroad, on the extent to which the costs of our product candidates will be paid by health maintenance, managed care, pharmacy benefit and similar healthcare management organizations, or reimbursed by government health administration authorities, private health coverage insurers and other third party payors. If reimbursement is not available, or is available only to limited levels, we may not be able to successfully commercialize our product candidates. Even if coverage is provided, the approved reimbursement amount may not be high enough to allow us to establish or maintain pricing sufficient to realize a sufficient return on our investment.

There is significant uncertainty related to the insurance coverage and reimbursement of newly approved products. In the United States, the principal decisions about reimbursement for new medicines are typically made by

the Centers for Medicare & Medicaid Services ("CMS"), an agency within the U.S. Department of Health and Human Services, as CMS decides whether and to what extent a new medicine will be covered and reimbursed under Medicare. Private payors tend to follow CMS to a substantial degree. It is difficult to predict what CMS will decide with respect to reimbursement for fundamentally novel products such as ours, as there is no body of established practices and precedents for these new products. Reimbursement agencies in Europe may be more conservative than CMS. Outside the United States, international operations are generally subject to extensive governmental price controls and other market regulations, and we believe the increasing emphasis on cost-containment initiatives in Europe, Canada, and other countries has and will continue to put pressure on the pricing and usage of our product candidates. In many countries, the prices of medical products are subject to varying price control mechanisms as part of national health systems. In general, the prices of medicines under such systems are substantially lower than in the United States. Other countries allow companies to fix their own prices for medicines, but monitor and control company profits. Additional foreign price controls or other changes in pricing regulation could restrict the amount that we are able to charge for our product candidates. Accordingly, in markets outside the United States, the reimbursement for our products may be reduced compared with the United States and may be insufficient to generate commercially reasonable revenues and profits.

Moreover, increasing efforts by governmental and third party payors, in the United States and abroad, to cap or reduce healthcare costs may cause such organizations to limit both coverage and level of reimbursement for new products approved and, as a result, they may not cover or provide adequate payment for our product candidates. We expect to experience pricing pressures in connection with the sale of any of our product candidates, due to the trend toward managed healthcare, the increasing influence of health maintenance organizations and additional legislative changes. The downward pressure on healthcare costs in general, particularly prescription drugs and surgical procedures and other treatments, has become very intense. As a result, increasingly high barriers are being erected to the entry of new products into the healthcare market.

In addition, many private payors contract with commercial vendors who sell software that provide guidelines that attempt to limit utilization of, and therefore reimbursement for, certain products deemed to provide limited benefit to existing alternatives. Such organizations may set guidelines that limit reimbursement or utilization of our products

Product liability lawsuits against us could cause us to incur substantial liabilities and to limit commercialization of any products that we may develop.

We face an inherent risk of product liability exposure related to the testing of our product candidates in human clinical trials and will face an even greater risk if we commercially sell any products that we may develop. If we cannot successfully defend against claims that our product candidates or products caused injuries, we will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

- decreased demand for any product candidates or products that we may develop;
- injury to our reputation and significant negative media attention;
- withdrawal of clinical trial participants;
- significant costs to defend the related litigation;
- substantial monetary awards to trial participants or patients;
- loss of revenue;
- reduced resources of our management to pursue our business strategy; and
- the inability to commercialize any products that we may develop.

We currently hold $8,000,000 in product liability insurance coverage in the aggregate, with a per incident limit of $8,000,000, which may not be adequate to cover all liabilities that we may incur. We may need to increase our insurance coverage as we expand our clinical trials or if we commence commercialization of our product candidates. Insurance coverage is increasingly expensive. We may not be able to maintain insurance coverage at a reasonable cost or in an amount adequate to satisfy any liability that may arise.

Risks Related to Our Dependence on Third Parties

We have entered, and may in the future seek to enter, into collaborations with third parties for the development and commercialization of our product candidates. If we fail to enter into such collaborations, or such collaborations are not successful, we may not be able to capitalize on the market potential of our product candidates.

In October 2017, KalVista Limited and Merck entered into the Option Agreement, under which we granted to Merck an option to acquire KVD001 through a period following completion of a Phase 2 clinical trial. We also granted to Merck a similar option to acquire investigational orally delivered molecules for DME that we will continue to develop as part of our ongoing research and development activities, through a period following the completion of a Phase 2 clinical trial. Biopharmaceutical companies are our prior and likely future collaborators for any marketing, distribution, development, licensing or broader collaboration arrangements. With respect to our existing collaboration agreement, and what we expect will be the case with any future collaboration agreements, we have and would expect to have limited control over the amount and timing of resources that our collaborators dedicate to the development or commercialization of our product candidates. Moreover, our ability to generate revenues from these arrangements will depend on our collaborators' abilities to successfully perform the functions assigned to them in these arrangements. We face significant competition in seeking appropriate collaborators. Our ability to reach a definitive agreement for any collaboration will depend, among other things, upon our assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator's evaluation of a number of factors. If we are unable to reach agreements with suitable collaborators on a timely basis, on acceptable terms, or at all, we may have to curtail the development of a product candidate, reduce or delay our development program or one or more of our other development programs, delay our potential development schedule or reduce the scope of research activities, or increase our expenditures and undertake discovery or preclinical development activities at our own expense. If we fail to enter into collaborations and do not have sufficient funds or expertise to undertake the necessary development activities, we may not be able to further develop our product candidates or continue to develop our product candidates and our business may be materially and adversely affected.

Future collaborations we may enter into may involve the following risks:

- collaborators may have significant discretion in determining the efforts and resources that they will apply to these collaborations;
- collaborators may not perform their obligations as expected;
- changes in the collaborators' strategic focus or available funding, or external factors, such as an acquisition, may divert resources or create competing priorities;
- collaborators may delay discovery and preclinical development, provide insufficient funding for product development of targets selected by us, stop or abandon discovery and preclinical development for a product candidate, repeat or conduct new discovery and preclinical development for a product candidate;
- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our products or product candidates if the collaborators believe that competitive products are more likely to be successfully developed than our products;
- product candidates discovered in collaboration with us may be viewed by our collaborators as competitive with their own product candidates or products, which may cause collaborators to cease to devote resources to the development of its product candidates;
- disagreements with collaborators, including disagreements over proprietary rights, contract interpretation or the preferred course of development, might cause delays or termination of the discovery, preclinical 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;
- collaborators may not properly maintain or defend their intellectual property rights or intellectual property rights licensed to us or may use their 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;

- collaborators may infringe the intellectual property rights of third parties, which may expose us to litigation and potential liability; and
- collaborations may be terminated for the convenience of the collaborator and, if terminated, we could be required to raise additional capital to pursue further development or commercialization of the applicable product candidates.

Additionally, subject to its contractual obligations to us, if a collaborator is involved in a business combination, the collaborator might deemphasize or terminate the development of any of our product candidates. If one of our collaborators terminates its agreement with us, we may find it more difficult to attract new collaborators and the perception of us in the business and financial communities could be adversely affected.

If our collaborations do not result in the successful development of products or product candidates, product candidates could be delayed and we may need additional resources to develop product candidates. All of the risks relating to product development, regulatory approval and commercialization described in this proxy statement also apply to the activities of our collaborators.

Our existing collaboration with Merck is important to our business. If our collaborators cease development efforts under our existing or future collaboration agreements, or if any of those agreements are terminated, these collaborations may fail to lead to commercial products and we may never receive milestone payments or future royalties under these agreements.

We have entered into a collaboration with Merck to develop KVD001 and other Oral DME Compounds, and these activities currently represent a significant portion of our product development efforts. A significant portion of our future revenue and cash resources is expected to be derived from this agreement or other similar agreements into which we may enter in the future. Revenue from research and development collaborations depends upon continuation of the collaborations, payments for research and development services and product supply, and the achievement of milestones, contingent payments and royalties, if any, derived from future products developed from our research. If we are unable to successfully advance the development of our product candidates or achieve milestones, revenue and cash resources from milestone payments under our collaboration agreements will be substantially less than expected.

We are unable to predict the success of our collaborations and we may not realize the anticipated benefits of our strategic collaborations. Our collaborators have discretion in determining and directing the efforts and resources, including the ability to discontinue all efforts and resources, they apply to the development and, if approval is obtained, commercialization and marketing of the product candidates covered by such collaborations. As a result, our collaborators may elect to de-prioritize our programs, change their strategic focus or pursue alternative technologies in a manner that results in reduced, delayed or no revenue to us. Our collaborators may have other marketed products and product candidates under collaboration with other companies, including some of our competitors, and their corporate objectives may not be consistent with our best interests. Our collaborators may also be unsuccessful in developing or commercializing our products. If our collaborations are unsuccessful, our business, financial condition, results of operations and prospects could be adversely affected. In addition, any dispute or litigation proceedings we may have with our collaborators in the future could delay development programs, create uncertainty as to ownership of intellectual property rights, distract management from other business activities and generate substantial expense.

Moreover, to the extent that any of our existing or future collaborators were to terminate a collaboration agreement, we may be forced to independently develop these product candidates, including funding preclinical studies or clinical trials, assuming marketing and distribution costs and defending intellectual property rights, or, in certain instances, abandon product candidates altogether, any of which could result in a change to our business plan and have a material adverse effect on our business, financial condition, results of operations and prospects.

We contract with third parties for the manufacture of our product candidates for preclinical and clinical testing and we expect to continue to do so for commercialization. This reliance on third parties increases the risk that we will not have sufficient quantities of our product candidates or products at an acceptable cost and quality, which could delay, prevent or impair our development or commercialization efforts.

We do not own or operate facilities for the manufacture of our product candidates, and we do not have any manufacturing personnel. We currently have no plans to build our own clinical or commercial scale manufacturing capabilities. We rely, and expect to continue to rely, on third parties for the manufacture of our product candidates for preclinical and clinical testing and we do not have backup sources of supply established for our candidates. We review the manufacturing process for each of our candidates and assess the risk to supply and, as appropriate, establish multiple manufacturers and/or establish stock levels to support future activities and do not believe we are currently substantially dependent on any one third party. Despite the drug substance and product risk management, this reliance on third parties presents a risk that we will not have sufficient quantities of our product candidates or products or such quantities at an acceptable cost or quality, which could delay, prevent or impair our development or commercialization efforts.

Any performance failure on the part of our existing or future manufacturers of drug substance or drug products could delay clinical development or marketing approval. If current suppliers cannot supply us with our Phase 2 requirements as agreed, we may be required to identify alternative manufacturers, which would lead us to incur added costs and delays in identifying and qualifying any such replacement.

The formulation used in early studies frequently is not a final formulation for commercialization. Additional changes may be required by the FDA or other regulatory authorities on specifications and storage conditions. These may require additional studies and may delay our clinical trials.

We expect to rely on third party manufacturers or third party collaborators for the manufacture of commercial supply of any other product candidates for which our collaborators or we obtain marketing approval.

We also expect to rely on other third parties to store and distribute drug supplies for our clinical trials. Any performance failure on the part of our distributors could delay clinical development or marketing approval of our product candidates or commercialization of our products, producing additional losses and depriving us of potential product revenue.

We may be unable to establish any agreements with third party manufacturers or to do so on acceptable terms. Even if we are able to establish agreements with third party manufacturers, reliance on third party manufacturers entails additional risks, including:

- reliance on the third party for regulatory compliance and quality assurance;
- the possible breach of the manufacturing agreement by the third party;
- the possible misappropriation of our proprietary information, including trade secrets and know-how; and
- the possible termination or nonrenewal of the agreement by the third party at a time that is costly or inconvenient for us.

Third party manufacturers may not be able to comply with cGMP, regulations or similar regulatory requirements outside the United States. Our failure, or the failure of our third party manufacturers, to comply with applicable regulations could result in sanctions being imposed on us, including clinical holds, fines, injunctions, civil penalties, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of product candidates or products, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect supplies of our products.

Our product candidates and any products that we may develop may compete with other product candidates and products for access to manufacturing facilities. There are a limited number of manufacturers that operate under cGMP regulations and that might be capable of manufacturing for us.

Our current and anticipated future dependence upon others for the manufacture of our product candidates or products may adversely affect our future profit margins and our ability to commercialize any products that receive marketing approval on a timely and competitive basis.

We may not successfully engage in strategic transactions, including any additional collaborations we seek, which could adversely affect our ability to develop and commercialize product candidates, impact our cash position, increase our expenses and present significant distractions to our management. The terms of any collaborations may also have impacts on other aspects of our business.

From time to time, we may consider strategic transactions, such as additional collaborations, acquisitions of companies, asset purchases and out- or in-licensing of product candidates or technologies that we believe will complement or augment our existing business. In particular, we will evaluate and, if strategically attractive, seek to enter into additional collaborations, including with major biotechnology or biopharmaceutical companies. The competition for collaborators is intense, and the negotiation process is time-consuming and complex. Any new collaboration may be on terms that are not optimal for us, and we may not be able to maintain any new collaboration if, for example, development or approval of a product candidate is delayed, sales of an approved product candidate do not meet expectations or the collaborator terminates the collaboration. 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. 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. Moreover, even if we acquire assets with promising markets or technologies, we may not be able to realize the benefit of acquiring such assets due to an inability to successfully integrate them with our existing technologies and we may encounter numerous difficulties in developing, manufacturing and marketing any new products resulting from a strategic acquisition that delay or prevent us from realizing their expected benefits or enhancing our business.

We cannot assure you that following any such collaboration, or other strategic transaction, we will achieve the expected synergies to justify the transaction. For example, such transactions may require us to incur non-recurring or other charges, increase our near- and long-term expenditures and pose significant integration or implementation challenges or disrupt our management or business. These transactions would entail numerous operational and financial risks, including exposure to unknown liabilities, disruption of our business and diversion of our management's time and attention in order to manage a collaboration or develop acquired products, product candidates or technologies, incurrence of substantial debt or dilutive issuances of equity securities to pay transaction consideration or costs, higher than expected collaboration, acquisition or integration costs, write-downs of assets or goodwill or impairment charges, increased amortization expenses, difficulty and cost in facilitating the collaboration or combining the operations and personnel of any acquired business, impairment of relationships with key suppliers, manufacturers or customers of any acquired business due to changes in management and ownership and the inability to retain key employees of any acquired business. Also, such strategic alliance, joint venture or acquisition may be prohibited. Collaborations may also have potential impact on other aspects of our business. If Merck chooses to exercise its rights under the Option Agreement, it will gain control of a significant portion of our intellectual property portfolio.

Accordingly, although there can be no assurance that we will undertake or successfully complete any transactions of the nature described above, any transactions that we do complete may be subject to the foregoing or other risks that would have a material and adverse effect on our business, financial condition, results of operations and prospects. Conversely, any failure to enter any additional collaboration or other strategic transaction that would be beneficial to us could delay the development and potential commercialization of our product candidates and have a negative impact on the competitiveness of any product candidate that reaches market.

Risks Related to Our Intellectual Property

If we are unable to obtain and maintain intellectual property protection for our technology and products or if the scope of the intellectual property protection obtained is not sufficiently broad, our competitors could develop and commercialize technology and products similar or identical to ours, and our ability to successfully commercialize our technology and products may be impaired.

Our success depends in large part on our ability to obtain and maintain patent protection in the European Union, the United States and other countries with respect to our proprietary technology and products. We seek to protect our proprietary position by filing patent applications in the United States and abroad related to our novel technologies and product candidates. This patent portfolio includes issued patents and pending patent applications covering compositions of matter and methods of use.

The patent prosecution 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. We may choose not to seek patent protection for certain innovations and may choose not to pursue patent protection in certain jurisdictions, and under the laws of certain jurisdictions, patents or other intellectual property rights may be unavailable or limited in scope. It is also possible that we will fail to identify patentable aspects of our discovery and preclinical 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 license from third parties. Therefore, these patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of our business.

The patent position of biotechnology and pharmaceutical companies generally is highly uncertain, involves complex legal and factual questions, and has in recent years been the subject of much litigation. In addition, the laws of foreign countries may not protect our rights to the same extent as the laws of the United States. For example, India and China do not allow patents for methods of treating the human body. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. Therefore, we cannot know with certainty whether we were the first to make the inventions claimed in our owned or licensed patents or pending patent applications, or that we were the first to file for patent protection of such inventions. If a third party has also filed a United States patent application prior to the effective date of the relevant provisions of the America Invents Act (i.e. before March 16, 2013) covering our product candidates or a similar invention, we may have to participate in an adversarial proceeding, known as an interference, declared by the USPTO to determine priority of invention in the United States. As a result, the issuance, scope, validity, enforceability and commercial value of our patent rights are highly uncertain. Our pending and future patent applications may not result in patents being issued which protect our technology or products, in whole or in part, or which effectively prevent others from commercializing competitive technologies and products. Changes in either the patent laws or interpretation of the patent laws in the European Union, the United States and other countries may diminish the value of our patents or narrow the scope of our patent protection.

Moreover, we may be subject to a third party preissuance submission of prior art to the USPTO, or become involved in opposition, derivation, reexamination, inter partes review, post-grant review or interference proceedings challenging our patent rights or the patent rights of others. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate, our patent rights, allow third parties to commercialize our technology or products and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize products without infringing third party patent rights. 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.

Even if our owned and licensed patent applications issue as patents, they may not issue in a form that will provide us with any meaningful protection, prevent competitors from competing with us or otherwise provide us with any competitive advantage. Our competitors may be able to circumvent our owned or licensed patents by developing similar or alternative technologies or products in a non-infringing manner.

The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, and our owned and licensed patents may be challenged in the courts or patent offices in the United States and abroad. Such

challenges may result in loss of exclusivity or freedom to operate or in patent claims being narrowed, invalidated or held unenforceable, in whole or in part, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of our technology and products. 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.

The risks described elsewhere pertaining to our patents and other intellectual property rights also apply to the intellectual property rights that we license, and any failure to obtain, maintain and enforce these rights could have a material adverse effect on our business. In some cases we may not have control over the prosecution, maintenance or enforcement of the patents that we license, and our licensors may fail to take the steps that we believe are necessary or desirable in order to obtain, maintain and enforce the licensed patents. Any inability on our part to protect adequately our intellectual property may have a material adverse effect on our business, operating results and financial position.

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

Periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on patents and/or applications will be due to be paid to the USPTO and various governmental patent agencies outside of the United States in several stages over the lifetime of the patents and/or applications. We employ an outside firm and rely on our outside counsel to pay these fees due to non-U.S. patent agencies. The USPTO and various non-U.S. governmental patent agencies 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 the applicable rules. However, there are situations in which non-compliance 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. In such an event, our competitors might be able to enter the market and this circumstance would have a material adverse effect on our business.

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

Because competition in our industry is intense, competitors may infringe or otherwise violate our issued patents, patents of our licensors or other intellectual property. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time consuming. Any claims we assert against perceived infringers could provoke these parties to assert counterclaims against us alleging that we infringed their patents. In addition, in a patent infringement proceeding, a court may decide that a patent of ours is invalid or unenforceable, in whole or in part, construe the patent's claims narrowly or refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation proceeding could put one or more of our patents at risk of being invalidated or interpreted narrowly. We may also elect to enter into license agreements in order to settle patent infringement claims or to resolve disputes prior to litigation, and any such license agreements may require us to pay royalties and other fees that could be significant. 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.

Third parties may initiate legal proceedings alleging that we are infringing their intellectual property rights, the outcome of which would be uncertain and could have a material adverse effect on the success of our business.

Our commercial success depends upon our ability, and the ability of our collaborators, to develop, manufacture, market and sell our product candidates and use our proprietary technologies without infringing the proprietary rights of third parties. There is considerable intellectual property litigation in the biotechnology and pharmaceutical industries. We may become party to, or threatened with, future adversarial proceedings or litigation regarding intellectual property rights with respect to our products and technology, including interference or

derivation proceedings before the USPTO. Third parties may assert infringement claims against us based on existing patents or patents that may be granted in the future.

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

If we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed.

In addition to seeking patents for some of our technology and product candidates, we also rely on trade secrets, including unpatented know-how, technology and other proprietary information, to maintain our competitive position. We seek to protect these trade secrets, in part, by entering into non-disclosure and confidentiality agreements with parties who have access to them, such as our employees, corporate collaborators, outside scientific collaborators, contract manufacturers, consultants, advisors and other third parties. We seek to protect our confidential proprietary information, in part, by entering into confidentiality and invention or patent assignment agreements with our employees and consultants, however, we cannot be certain that such agreements have been entered into with all relevant parties. Moreover, to the extent we enter into such agreements, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. In addition, some courts inside and outside the United States are less willing or unwilling to protect trade secrets. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent them, or those to whom they communicate them, 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, our competitive position would be harmed.

Risks Related to Employee Matters, Facilities, Managing Growth and Macroeconomic Conditions

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 development expertise of the principal members of our management, scientific and clinical team. Although we have entered into employment letter agreements with our executive officers, each of them may terminate their employment with us at any time. We do not maintain "key person" insurance for any of our executives or other employees.

Recruiting and retaining qualified scientific, clinical, manufacturing, sales and marketing personnel will also be critical to our success. 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. Furthermore, replacing executive officers and key employees may be difficult and may take an extended period of time because of the limited number of individuals in our industry with the breadth of skills and experience required to successfully develop, gain regulatory approval of and commercialize products. Competition to hire from this limited pool is intense, and we may be unable to hire, train, retain or motivate these key personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for similar personnel. 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 discovery and preclinical 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 to provide services to us. If we are unable to continue to attract and retain high quality personnel, our ability to pursue our growth strategy will be limited.

We expect to expand our development and regulatory capabilities and potentially implement sales, marketing and distribution capabilities, and as a result, we may encounter difficulties in managing our growth, which could disrupt our operations.

We expect to experience significant growth in the number of our employees and the scope of our operations, particularly in the areas of drug development, regulatory affairs and, if any of our product candidates receive marketing approval, sales, marketing and distribution. To manage our anticipated future growth, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities and continue to recruit and train additional qualified personnel. Due to our limited financial resources and the limited experience of our management team in managing a company with such anticipated growth, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. The expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability to manage growth could delay the execution of our business plans or disrupt our operations.

The U.K. vote to leave the European Union, known as Brexit, could negatively impact our business and operations.

The majority of our scientific operations are based in the United Kingdom and we have received significant funding through United Kingdom government sources and tax credits. In addition, we have used the United Kingdom as our European location for interactions with European Union regulatory authorities related to clinical development and other activities executed or planned in the European Union. The ongoing Brexit process is complicated and many of the details of future interactions between the United Kingdom and European Union remain unresolved. There are many risks and uncertainties associated with this process, including whether Brexit has a negative economic impact on either the United Kingdom or the European Union member states, or interactions with the European Union regulatory regime are changed as a result of Brexit, any of which could have an adverse impact on our business or future operations. For additional risks related to Brexit, see "—*If we are not able to obtain, or if there are delays in obtaining required regulatory approvals, we will not be able to commercialize our product candidates, and our ability to generate revenue will be materially impaired.*"

Our business and operations would suffer in the event of system failures or security breaches.

Our internal computer systems and those of our CROs, collaborators and third parties on whom we rely are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. Furthermore, we have little or no control over the security measures and computer systems of our third party collaborators. In May 2019, we were notified by one of our vendors that they suffered a security breach and some of our data was among the information stolen by an unknown third party. We have taken certain actions in response to that theft and we do not anticipate significant disruption to our business or future prospects. However, in the future, if such an event were to occur and lead to exposure of sensitive information or cause interruptions in our operations or our third party collaborators, it could result in a material disruption of our drug development programs and potential financial losses. For example, the loss of research data could delay development of our product candidates and the loss of clinical trial data from completed or ongoing or planned clinical trials could result in delays in our regulatory approval efforts and we may incur substantial costs to attempt to recover or reproduce the data. If any disruption or security breach resulted in a loss of or damage to our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability and/or the further development of our product candidates could be delayed or impaired.

Risks Related to Ownership of Our Common Stock

Our stock price is volatile and our stockholders may not be able to resell shares of our common stock at or above the price they paid.

The trading price of our common stock is highly volatile and could be subject to wide fluctuations in response to various factors, many of which are beyond our control. These factors include those discussed in this "Risk Factors" section of this Annual Report on Form 10-K and others such as:

- announcement of a strategic transaction or other significant events for us or our competitors;
- our decision to initiate a clinical trial or not to initiate a clinical trial;
- announcements of significant changes in our business or operations, including the decision not to pursue drug development programs;
- additions or departures of key personnel;
- adverse results or delays in clinical trials;
- changes in reimbursement or third party coverage of treatments for HAE or DME, or changes to treatment recommendations or guidelines applicable to the treatment of HAE or DME;
- announcements relating to collaboration partnerships or other strategic transactions undertaken by us;
- announcements of therapeutic innovations or new products by us or our competitors;
- adverse actions taken by regulatory agencies with respect to our clinical trials, manufacturing supply chain or sales and marketing activities;
- changes or developments in laws or regulations applicable to any of our product candidates;
- any adverse changes to our relationship with any manufacturers or suppliers;
- the success of our testing and clinical trials;
- the success of our efforts to acquire or license or discover additional product candidates;
- any intellectual property infringement actions in which we may become involved;
- announcements concerning our competitors or the pharmaceutical industry in general;
- achievement of expected product sales and profitability;
- manufacture, supply or distribution shortages;
- actual or anticipated fluctuations in our operating results;
- FDA or other regulatory actions affecting us or our industry or other healthcare reform measures in the United States, the United Kingdom or the European Union;
- changes in financial estimates or recommendations by securities analysts;
- trading volume of our common stock;
- sales of our common stock by us, our executive officers and directors or our stockholders in the future; and
- general economic and market conditions and overall fluctuations in the United States equity markets.

In addition, the stock markets in general, and the markets for pharmaceutical, biopharmaceutical and biotechnology stocks in particular, have experienced extreme volatility that may have been unrelated to the operating performance of the issuer. These broad market fluctuations may adversely affect the trading price or liquidity of our common stock. In the past, when the market price of a stock has been volatile, holders of that stock have sometimes instituted securities class action litigation against the issuer. If any of our stockholders were to bring such a lawsuit against us, we could incur substantial costs defending the lawsuit and the attention of our

management would be diverted from the operation of our business, which could seriously harm our financial position. Any adverse determination in litigation could also subject us to significant liabilities.

If securities or industry analysts do not publish research or reports about our business, or if they issue an adverse opinion regarding our stock, our stock price and trading volume could decline.

The trading market for our common stock will be influenced by the research and reports that industry or securities analysts publish about us or our business. If any analysts who cover us issue an adverse regarding us, our business model, our intellectual property or our stock performance, or if our clinical trials and operating results fail to meet the expectations of analysts, our stock price would likely decline. If any of these analysts cease coverage of us or fail to publish reports on us regularly, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

We incur significant costs as a result of operating as a public company, and our management devotes substantial time to compliance initiatives. We may fail to comply with the rules that apply to public companies, including Section 404 of the Sarbanes-Oxley Act of 2002, which could result in sanctions or other penalties that would harm our business.

We incur significant legal, accounting and other expenses as a public company, including costs resulting from public company reporting obligations under the Securities Exchange Act of 1934, as amended, or the Exchange Act, and regulations regarding corporate governance practices. The listing requirements of The NASDAQ Global Market require that we satisfy certain corporate governance requirements relating to director independence, distributing annual and interim reports, stockholder meetings, approvals and voting, soliciting proxies, conflicts of interest and a code of conduct. Our management and other personnel have devoted, and will continue to need to devote, a substantial amount of time to ensure that we comply with all of these requirements. Moreover, the reporting requirements, rules and regulations increase our legal and financial compliance costs and make some activities more time consuming and costly. Any changes we make to comply with these obligations may not be sufficient to allow us to satisfy our obligations as a public company on a timely basis, or at all. These reporting requirements, rules and regulations, coupled with the increase in potential litigation exposure associated with being a public company, could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors or board committees or to serve as executive officers, or to obtain certain types of insurance, including directors' and officers' insurance, on acceptable terms.

We are subject to Section 404 of The Sarbanes-Oxley Act of 2002, or Section 404, and the related rules of the SEC which generally require our management and independent registered public accounting firm to report on the effectiveness of our internal control over financial reporting. Section 404 requires an annual management assessment of the effectiveness of our internal control over financial reporting. However, for so long as we remain an emerging growth company as defined in the Jumpstart Our Business Startups Act of 2012, or JOBS Act, we intend to take advantage of certain exemptions from various reporting requirements that are applicable to public companies that are not emerging growth companies, including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404.

During the course of the review and testing of our internal control for the purpose of providing the reports required by these rules, we may identify deficiencies and be unable to remediate them before we must provide the required reports. Furthermore, if we have a material weakness in our internal control over financial reporting, we may not detect errors on a timely basis and our financial statements may be materially misstated. We or our independent registered public accounting firm may not be able to conclude on an ongoing basis that we have effective internal control over financial reporting, which could harm our operating results, cause investors to lose confidence in our reported financial information and cause the trading price of our stock to fall. In addition, as a public company we are required to file accurate and timely quarterly and annual reports with the SEC under the Exchange Act. Any failure to report our financial results on an accurate and timely basis could result in sanctions, lawsuits, delisting of our shares from The NASDAQ Global Market or other adverse consequences that would materially harm our business.

If we fail to establish or maintain proper internal controls, our ability to produce accurate financial statements or comply with applicable regulations could be impaired.

Pursuant to Section 404 of the Sarbanes-Oxley Act, our management is required annually to deliver a report that assesses the effectiveness of our internal control over financial reporting and, subject to exemptions allowed as an "emerging growth company," our independent registered public accounting firm will be required annually to deliver an attestation report on the effectiveness of our internal control over financial reporting. If we are unable to maintain effective internal control over financial reporting, we may not be able to produce accurate financial statements, and investors may therefore lose confidence in our operating results, our stock price could decline and we may be subject to litigation or regulatory enforcement actions.

Provisions in our charter documents and under Delaware law could discourage a takeover that stockholders may consider favorable and may lead to entrenchment of management.

Our amended and restated certificate of incorporation and amended and restated bylaws contain provisions that could significantly reduce the value of our shares to a potential acquirer or delay or prevent changes in control or changes in our management without the consent of our board of directors. The provisions in our charter documents include the following:

- a classified board of directors with three-year staggered terms, which may delay the ability of stockholders to change the membership of a majority of our board of directors;
- no cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates;
- the exclusive right of our board of directors to elect a director to fill a vacancy created by the expansion of the board of directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on our board of directors;
- the required approval of at least 66 2/3% of the shares entitled to vote to remove a director for cause, and the prohibition on removal of directors without cause;
- the ability of our board of directors to authorize the issuance of shares of preferred stock and to determine the price and other terms of those shares, including preferences and voting rights, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquirer;
- the ability of our board of directors to alter our bylaws without obtaining stockholder approval;
- the required approval of at least 66 2/3% of the shares entitled to vote at an election of directors to adopt, amend or repeal certain provisions of our bylaws and our amended and restated certificate of incorporation regarding the election and removal of directors;
- a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders;
- the requirement that a special meeting of stockholders may be called only by or at the direction of our board of directors pursuant to a resolution adopted by a majority of the total number of directors that our board of directors would have if there were no vacancies, which may delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors; and
- advance notice procedures that stockholders must comply with in order to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders' meeting, which may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of us. In addition, these provisions would apply even if we were to receive an offer that some stockholders may consider beneficial.

We are also subject to the anti-takeover provisions contained in Section 203 of the Delaware General Corporation Law. Under Section 203, a corporation may not, in general, engage in a business combination with any holder of 15% or more of its capital stock unless the holder has held the stock for three years or, among other exceptions, the board of directors has approved the transaction.

Claims for indemnification by our directors and officers may reduce our available funds to satisfy successful third party claims against us and may reduce the amount of money available to us.

Our amended and restated certificate of incorporation and amended and restated bylaws provide that we will indemnify our directors and officers, in each case to the fullest extent permitted by Delaware law.

In addition, as permitted by Section 145 of the Delaware General Corporation Law, our amended and restated bylaws and our indemnification agreements that we have entered into with our directors and officers provide that:

- We will indemnify our directors and officers for serving us in those capacities or for serving other business enterprises at our request, to the fullest extent permitted by Delaware law. Delaware law provides that a corporation may indemnify such person if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the registrant and, with respect to any criminal proceeding, had no reasonable cause to believe such person's conduct was unlawful.
- We may, in our discretion, indemnify employees and agents in those circumstances where indemnification is permitted by applicable law.
- We are required to advance expenses, as incurred, to our directors and officers in connection with defending a proceeding, except that such directors or officers shall undertake to repay such advances if it is ultimately determined that such person is not entitled to indemnification.
- We will not be obligated pursuant to our amended and restated bylaws to indemnify a person with respect to proceedings initiated by that person against us or our other indemnitees, except with respect to proceedings authorized by our board of directors or brought to enforce a right to indemnification.
- The rights conferred in our amended and restated bylaws are not exclusive, and we are authorized to enter into indemnification agreements with our directors, officers, employees and agents and to obtain insurance to indemnify such persons.
- We may not retroactively amend our amended and restated bylaw provisions to reduce our indemnification obligations to directors, officers, employees and agents.

Our ability to use our net operating losses to offset future taxable income, if any, may be subject to certain limitations.

In general, under Section 382 of the Internal Revenue Code of 1986, as amended, or the Code, a corporation that undergoes an "ownership change" (generally defined as a greater than 50-percentage-point cumulative change (by value) in the equity ownership of certain stockholders over a rolling three-year period) is subject to limitations on its ability to utilize its pre-change net operating losses, or NOLs, to offset future taxable income. We have experienced ownership changes that substantially limit our use of the NOLs available to us for U.S. federal income tax purposes. If we undergo additional ownership changes (some of which changes may be outside our control), our ability to utilize our NOLs could be further limited by Section 382 of the Code. Our NOLs may also be impaired under state law. Accordingly, we may not be able to utilize a material portion of our NOLs. Furthermore, our ability to utilize our NOLs is conditioned upon our attaining profitability and generating U.S. federal taxable income. We have incurred net losses since our inception and anticipate that we will continue to incur significant losses for the foreseeable future; thus, we do not know whether or when we will generate the U.S. federal taxable income necessary to utilize our NOLs. See the risk factors described above under "-Risks Related to Our Limited Operating History, Financial Condition and Capital Requirements."

We do not currently intend to pay dividends on our common stock, and, consequently, our stockholders' ability to achieve a return on their investment will depend on appreciation in the price of our common stock.

We do not currently intend to pay any cash dividends on our common stock for the foreseeable future. We currently intend to invest our future earnings, if any, to fund our growth. Therefore, our stockholders are not likely to receive any dividends on their common stock for the foreseeable future. Since we do not intend to pay dividends, our stockholders' ability to receive a return on their investment will depend on any future appreciation in the market value of our common stock. There is no guarantee that our common stock will appreciate or even maintain the price at which our holders have purchased it.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

Our corporate headquarters are located in Cambridge, Massachusetts where we occupy approximately 2,700 square feet of office space under a five-year lease. We maintain approximately 8,800 square feet of office and research laboratory space in Porton Down, United Kingdom, under a ten-year lease. We also maintain approximately 1,000 square feet of leased research laboratory space in Boston, Massachusetts.

We believe that our current and planned facilities are adequate to meet our needs for the forseeable future, and that, should it be needed, suitable additional space will be available to accommodate any such expansion of our operations.

Item 3. Legal Proceedings.

From time to time, we may become involved in various lawsuits and legal proceedings which arise in the ordinary course of business. We are currently not aware of any such legal proceedings or claims that we believe will have a material adverse effect on our business, financial condition or operating results.

Item 4. Mine Safety Disclosures.

Not Applicable.

PART II

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

Market Information

Our common stock is traded on the NASDAQ stock market under the symbol "KALV."

Holders

As of July 10, 2019 there were 39 holders of record of our common stock. The actual number of holders is greater than this number of record holders and includes stockholders who are beneficial owners but whose shares are held in street name by brokers and other nominees.

Dividends

We have never declared or paid cash dividends on our capital stock. We do not expect to pay dividends on our common stock for the foreseeable future. Instead, we anticipate that all of our earnings, if any, will be used for the operation and growth of our business. Any future determination to declare cash dividends would be subject to the discretion of our board of directors and would depend upon various factors, including our results of operations, financial condition and capital requirements, restrictions that may be imposed by applicable law and our contracts and other factors deemed relevant by our board of directors.

Securities Authorized for Issuance under Equity Compensation Plans

The following table provides information as of April 30, 2019, with respect to the shares of our common stock that may be issued under our existing equity compensation plans.

Plan Category	Number of Securities to be Issued upon Exercise of Outstanding Options, Warrants and Rights (a)	Weighted-average Exercise Price of Outstanding Options, Warrants and Rights (b)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by stockholders (1)(2)	1,704,283	$ 10.06	902,251
Equity compensation plans not approved by stockholders (3)	80,055	$ 8.49	—
Total	1,784,338		902,251

(1) Includes 159,075 shares subject to options issued pursuant to the Carbylan 2015 Incentive Plan, 175,618 shares subject to options issued pursuant to the Enterprise Management Incentives Plan and 1,369,590 shares subject to options issued pursuant to the 2017 Equity Incentive Plan. The 2017 Equity Incentive Plan contains provisions that provide for automatic increases to the authorized number of shares as of January 1st each year, of up to 4% of the outstanding shares of stock on the last day of the immediately preceding calendar year, or a lesser number of shares as approved by our board of directors. There are currently 802,251 shares available for future issuance under the 2017 Equity Incentive Plan. There are 100,000 shares of common stock available for future issuance under the 2017 Employee Stock Purchase Plan. In January 2019, the board of directors authorized the first offering period under the 2017

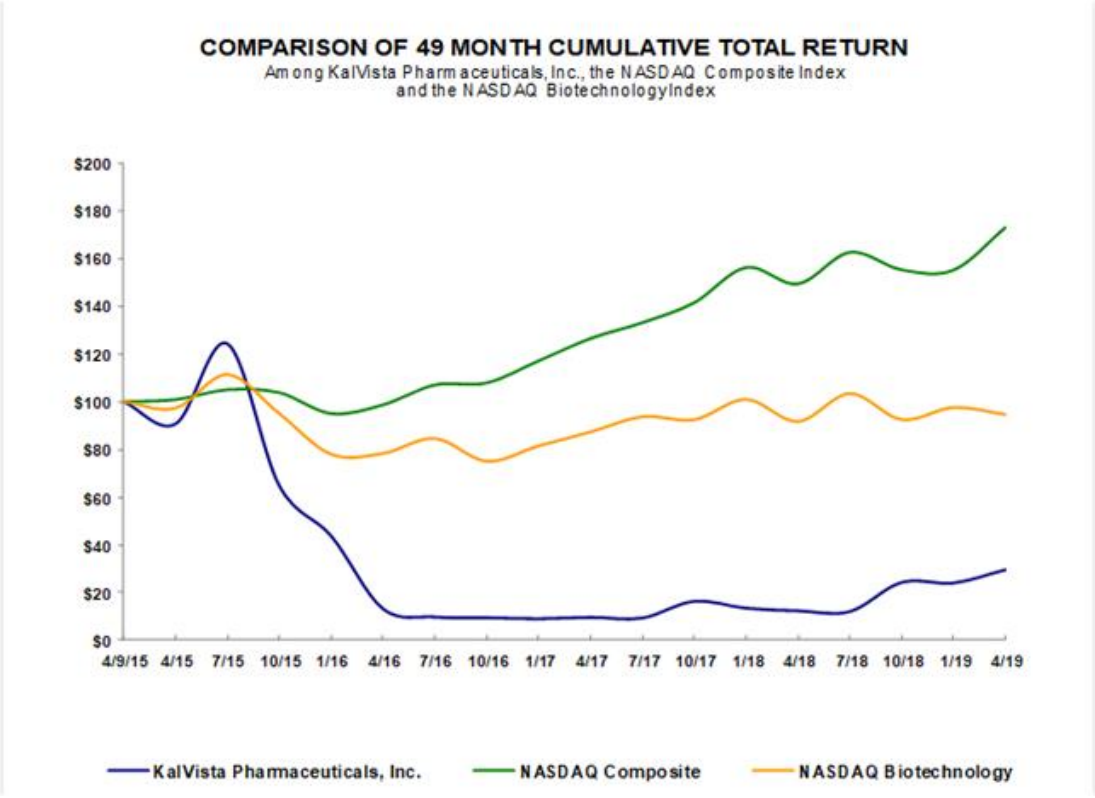
Employee Stock Purchase Plan to run from February 15, 2019 to June 30, 2019. All subsequent offering periods will run for six month periods ending June 30 and December 31 of each year.

(2) Shares reserved for issuance under the 2017 Equity Incentive Plan may be granted as restricted stock, restricted share units and other equity awards, as well as for grants of stock options and stock appreciation rights.

(3) Consists of options issued pursuant to inducement grants.

Stock Price Performance Graph

The graph below matches KalVista Pharmaceuticals, Inc.'s cumulative 49-month total shareholder return on common stock with the cumulative total returns of the NASDAQ Composite index and the NASDAQ Biotechnology index. The graph tracks the performance of a $100 investment in our common stock and in each index (with the reinvestment of all dividends) from April 9, 2015, the date our common stock became publicly traded, to April 30, 2019. Prior to November 2016 the Company was named Carbylan Therapeutics, Inc. and operated as a different entity than the current KalVista.



	4/9/15	4/15	7/15	10/15	1/16	4/16	7/16	10/16	1/17	4/17	7/17	10/17	1/18	4/18	7/18	10/18	1/19	4/19
KalVista Pharmaceuticals, Inc.	100.00	90.65	124.28	64.75	43.71	13.17	9.73	9.43	9.03	9.62	9.30	16.35	13.41	12.36	12.03	24.28	24.01	29.55
NASDAQ Composite	100.00	100.86	104.97	103.74	95.00	98.65	106.99	107.86	117.07	126.46	133.11	141.44	156.21	149.33	162.56	155.21	155.15	172.91
NASDAQ Biotechnology	100.00	97.25	111.38	94.97	77.94	78.28	84.60	75.01	81.46	87.29	93.71	92.42	100.97	91.65	103.37	92.46	97.56	94.61

Recent Sales of Unregistered Securities

None.

Item 6. Selected Financial Data.

The following selected financial data should be read in conjunction with the Consolidated Financial Statements and the Notes thereto and the section captioned “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” included elsewhere in this Annual Report on Form 10-K.

The Balance Sheet Data at April 30, 2019 and 2018 and the Statement of Operations Data for each of the three years ended April 30, 2019, 2018, and 2017 have been derived from the audited Consolidated Financial Statements for such years, included elsewhere in this Annual Report on Form 10-K. The Balance Sheet Data at April 30, 2017, 2016 and 2015, and the Statement of Operations Data for each of the two years in the period ended April 30, 2016 and 2015 have been derived from audited consolidated financial statements for such years not included in this Annual Report on Form 10-K.

	For the Years Ended April 30,				
	2019	2018	2017	2016	2015
	(in thousands, except share and per share data)				
Consolidated Statement of Operations Data:					
Revenue	$ 16,127	$ 8,394	$ 1,504	$ 2,133	$ 1,804
Operating expenses					
Research and development	35,021	18,237	12,666	14,661	8,285
General and administrative	10,926	8,862	11,177	2,653	1,608
Total operating expenses	45,947	27,099	23,843	17,314	9,893
Operating loss	(29,820)	(18,705)	(22,339)	(15,181)	(8,089)
Other income, net	9,128	2,900	3,736	3,745	863
Loss before income taxes	(20,692)	(15,805)	(18,603)	(11,436)	(7,226)
Income tax expense	124	—	—	—	—
Net loss	$ (20,816)	$ (15,805)	$ (18,603)	$ (11,436)	$ (7,226)
Net loss per share, basic and diluted	$ (1.38)	$ (1.53)	$ (4.47)	$ (26.17)	$ (34.94)
Weighted average common shares outstanding, basic and diluted	15,080,863	10,321,780	4,646,764	591,298	263,358

	April 30,				
	2019	2018	2017	2016	2015
	(in thousands)				
Consolidated Balance Sheet Data:					
Cash and cash equivalents	$ 32,006	$ 51,055	$ 30,950	$ 21,764	$ 2,526
Property and equipment, net	2,413	1,836	97	74	100
Working capital	97,494	36,164	31,180	21,422	1,950
Total assets	118,132	61,389	34,345	24,745	3,890
Total liabilities	21,394	34,136	3,018	3,249	1,840
Stockholders' equity (deficit)	96,738	27,253	31,327	(37,112)	(23,554)

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

The following discussion and analysis should be read in conjunction with our audited consolidated financial statements and the related notes that appear elsewhere in this Annual Report on Form 10-K. This discussion contains forward-looking statements reflecting our current expectations that involve risks and uncertainties. Actual results may differ materially from those discussed in these forward-looking statements due to a number of factors, including those set forth in the section entitled "Risk Factors" and elsewhere in this Annual Report on Form 10-K. For further information regarding forward-looking statements, please refer to the "Special Note Regarding Forward-Looking Statements" at the beginning of Part I of this Annual Report on Form 10-K.

Management Overview

We are a clinical stage pharmaceutical company focused on the discovery, development and commercialization of small molecule protease inhibitors for diseases with significant unmet need. Our first product candidates are inhibitors of plasma kallikrein being developed for two indications: hereditary angioedema ("HAE") and diabetic macular edema ("DME"). We apply our insights into the chemistry of proteases and, with our current programs, the biology of the plasma kallikrein system, to develop small molecule inhibitors with high selectivity, potency and bioavailability that we believe will make them successful treatments for disease.

We have created a structurally diverse portfolio of oral plasma kallikrein inhibitors and advanced multiple drug candidates into Phase 1 clinical trials in order to create best-in-class oral therapies for both HAE and DME. In December 2018, we initiated a Phase 2 clinical trial of KVD900 as a potential on-demand therapy for treatment of acute HAE attacks. We currently expect that trial to complete in late 2019. In the case of DME, we are initially developing KVD001, a plasma kallikrein inhibitor which is administered directly into the eye, and we anticipate ultimate development of orally delivered drugs. We have fully enrolled an ongoing Phase 2 trial for KVD001 that we expect to complete in the second half of 2019.

We have devoted substantially all our efforts to research and development, including clinical trials of our product candidates. We have not completed the development of any product candidates. Pharmaceutical drug product candidates, like those being developed by us, require approvals from the FDA or foreign regulatory agencies prior to commercial sales. There can be no assurance that any product candidates will receive the necessary approvals and any failure to receive approval or delay in approval may have a material adverse impact on our business and financial results. We are subject to a number of risks and uncertainties similar to those of other life science companies developing new products, including, among others, the risks related to the necessity to obtain adequate additional financing, to successfully develop product candidates, to obtain regulatory approval of product candidates, to comply with government regulations, to successfully commercialize our potential products, to the protection of proprietary technology and to our dependence on key individuals.

We have funded operations primarily through the issuance of stock, the Option Agreement, the share purchase transaction with Carbylan and grant income. As of April 30, 2019, we had an accumulated deficit of $92.5 million and $100.8 million of cash, cash equivalents and available for sale securities. Our working capital is anticipated to fund our operations for at least the next twelve months from the date the audited consolidated financial statements are issued. Accordingly, the audited consolidated financial statements have been prepared on a going concern basis.

Financial Overview

Revenue

Our revenue consists primarily of a portion of the upfront fees from the Option Agreement, which is recognized as revenue using an input method of performance completed to date comparing the total effort incurred with our estimate of total effort required to perform the related research and development activities.

In prior years, we received grant income to support our research and development activities. During the year ended April 30, 2019, there were no grant activities or related income.

Research and Development Expenses

Research and development expenses primarily consist of costs associated with our research activities, including the preclinical and clinical development of product candidates. We contract with clinical research organizations to manage our clinical trials under agreed upon budgets for each study, with oversight by our clinical program managers. All research and development costs are expensed as incurred.

We expect to continue to incur substantial expenses related to development activities for the foreseeable future as we conduct clinical development, manufacturing and toxicology studies. Product candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials, additional drug manufacturing requirements, and later stage toxicology studies such as carcinogenicity studies. The process of conducting preclinical studies and clinical trials necessary to obtain regulatory approval is costly and time consuming. The probability of success for each product candidate is affected by numerous factors, including preclinical data, clinical data, competition, manufacturing capability and commercial viability. Accordingly, we may never succeed in achieving marketing approval for any of our product candidates.

Completion dates and costs for clinical development programs as well as our research program can vary significantly for each current and future product candidate and are difficult to predict. As a result, we cannot estimate with any degree of certainty the costs associated with development of our product candidates at this point in time. We anticipate making determinations as to which programs and product candidates to pursue and how much funding to direct to each program and product candidate on an ongoing basis in response to the scientific success of early research programs, results of ongoing and future clinical trials, our ability to enter into collaborative agreements with respect to programs or potential product candidates, as well as ongoing assessments as to the commercial potential of each current or future product candidate.

General and Administrative Expenses

General and administrative expenses consist primarily of the costs associated with general management, obtaining and maintaining our patent portfolio, professional fees for accounting, auditing, consulting and legal services, and general overhead expenses.

We expect ongoing general and administrative expenses to increase in the future as we expand our operating activities, maintain and expand the patent portfolio and incur additional costs associated with the management of a public company and maintaining compliance with exchange listing and SEC requirements. These potential increases will likely include management costs, legal fees, accounting fees, directors' and officers' liability insurance premiums and expenses associated with investor relations.

Other Income, Net

Other income consists of bank interest, research and development tax credits from the United Kingdom government's tax incentive programs set up to encourage research and development in the United Kingdom, and realized and unrealized exchange rate gains/losses on cash held in foreign currencies.

Income Taxes

We historically have incurred net losses and had no corporation tax liabilities. We file U.S. Federal tax returns, as well as certain state returns. We also file returns in the United Kingdom. Under the U.K. government's research and development tax incentive scheme, we have incurred qualifying research and development expenses and filed claims for research and development tax credits in accordance with the relevant tax legislation. The research and development tax credits are paid out to us in cash and reported as other income. Because of the operating losses and the full valuation allowance provided on all deferred tax assets, including the net operating losses, no tax provision has been recognized in the years prior to the fiscal year ended April 30, 2019.

Critical Accounting Policies and Significant Judgments and Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our financial statements, which we have prepared in accordance with generally accepted accounting principles in the United States ("GAAP"). The preparation of our financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of our financial statements and the reported revenue and expenses during the reported periods. We evaluate these estimates and judgments, including those described below, on an ongoing basis. We base our estimates on historical experience, known trends and events, contractual milestones and various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. See also Note 2, "Summary of Significant Accounting Policies" to our Consolidated Financial Statements included in Item 8 of this report, which discusses the significant assumptions used in applying our accounting policies. Those accounting policies and estimates that we deem to be critical are as follows:

Revenue Recognition

We recognize revenue from research and development arrangements. In accordance with Accounting Standards Codification ("ASC") 606, "Revenue from Contracts with Customers," revenue is recognized when a customer obtains control of promised goods or services. The amount of revenue recognized reflects the consideration to which we expect to be entitled to receive in exchange for these goods and services.

Performance obligations promised in a contract are identified based on the goods and services that will be transferred to the customer that are both capable of being distinct, whereby the customer can benefit from the good or service either on its own or together with other available resources, and are distinct in the context of the contract, whereby the transfer of the good or service is separately identifiable from other promises in the contract. To the extent a contract includes multiple promised goods and services, we must apply judgment to determine whether promised goods and services are capable of being distinct in the context of the contract. If these criteria are not met, the promised goods and services are accounted for as a combined performance obligation.

The transaction price is determined based on the consideration to which we will be entitled in exchange for transferring goods and services to the customer. To the extent the transaction price includes variable consideration, we estimate the amount of variable consideration that should be included in the transaction price utilizing either the expected value method or the most likely amount method depending on the nature of the variable consideration. Variable consideration is included in the transaction price if, in our judgment, it is probable that a significant future reversal of cumulative revenue under the contract will not occur. Any estimates, including the effect of the constraint on variable consideration, are evaluated at each reporting period for any changes.

If the contract contains a single performance obligation, the entire transaction price is allocated to the single performance obligation. Contracts that contain multiple performance obligations require an allocation of the transaction price to each performance obligation on a relative standalone selling price basis unless the transaction price is variable and meets the criteria to be allocated entirely to a performance obligation or to a distinct service that forms part of a single performance obligation. The consideration to be received is allocated among the separate performance obligations based on relative standalone selling prices.

We satisfy performance obligations either over time or at a point in time. Revenue is recognized over time if either: (1) the customer simultaneously receives and consumes the benefits provided by the entity's performance (2) the entity's performance creates or enhances an asset that the customer controls as the asset is created or enhanced or (3) the entity's performance does not create an asset with an alternative use to the entity and the entity has an enforceable right to payment for performance completed to date. If the entity does not satisfy a performance obligation over time, the related performance obligation is satisfied at a point in time by transferring the control of a promised good or service to a customer. ASC 606 requires us to select a single revenue recognition method for the performance obligation that faithfully depicts our performance in transferring control of the goods and services. The guidance allows for two methods to measure progress toward complete satisfaction of a performance obligation, depending on the facts and circumstances:

Output methods - recognize revenue on the basis of direct measurements of the value to the customer of the goods or services transferred to date relative to the remaining goods or services promised under the contract (e.g., surveys of performance completed to date, appraisals of results achieved, milestones reached, time elapsed, and units of produced or units delivered); and

Input methods - recognize revenue on the basis of the entity's efforts or inputs to the satisfaction of a performance obligation (e.g., resources consumed, labor hours expended, costs incurred, or time elapsed) relative to the total expected inputs to the satisfaction of that performance obligation.

Licenses of intellectual property: If the license to our intellectual property is determined to be distinct from the other performance obligations identified in the arrangement, we must consider the nature of the intellectual property to which the customer will have rights (i.e., access at a point in time or benefit of intellectual property enhancements over time). We recognize revenue from non-refundable, up-front fees allocated to the license at a point in time/over the period the license is transferred to the customer and the customer is able to use and benefit from the license. For licenses that are bundled with other promises, we utilize judgment to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or at a point in time and, if over time, the appropriate method of measuring progress for purposes of recognizing revenue from non-refundable, up-front fees. We evaluate the measure of progress each reporting period and, if necessary, adjust the measure of performance and related revenue recognition.

Milestone payments: At the inception of each arrangement that includes development and regulatory milestone payments for promised goods and services, we evaluate the circumstances of whether the milestones will be reached and estimates the amount to be included in the transaction price that will not cause a significant revenue reversal. We will evaluate these types of payments for customer options once those options have been exercised. ASC 606 suggests two alternatives to use when estimating the amount of variable consideration: the expected value method and the most likely amount method. Under the expected value method, an entity considers the sum of probability-weighted amounts in a range of possible consideration amounts. Under the most likely amount method, an entity considers the single most likely amount in a range of possible consideration amounts. We will use the most likely amount method for development and regulatory milestone payments as management believes this method is the better predictor because we expect to be entitled to only one of two possible amounts. Additionally, management believes that the most likely amount of milestone consideration is its stated amount. If it is probable that a significant revenue reversal would not occur, the associated milestone value is included in the transaction price. The transaction price is then allocated to performance obligations on a specific basis or on a relative standalone selling price basis. We recognize revenue as or when the performance obligations under the contract are satisfied. At the end of each subsequent reporting period, we re-evaluate whether it is probable that a significant revenue reversal will not occur in future periods, and if necessary, adjusts our estimates of the overall transaction price. Any such adjustments are recorded on a cumulative catch-up basis, which would affect revenues and earnings in the period of adjustment.

Royalties: For arrangements that include sales-based royalties, including milestone payments based on the level of sales, and the license is deemed to be the predominant item to which the royalties relate, we recognize revenue at the later of: (1) when the related sales occur, or (2) when the performance obligation to which some or all of the royalty has been allocated has been satisfied (or partially satisfied).

Up-front payments: Up-front payments and fees are recorded as deferred revenue upon receipt or when due and may require deferral of revenue recognition to a future period until we perform our obligations under these arrangements. Amounts payable to us are recorded as accounts receivable when our right to consideration is unconditional. We do not assess whether a contract has a significant financing component if the expectation at contract inception is such that the period between payment by the customer and the transfer of the promised goods or services to the customer will be one year or less.

Preclinical and Clinical Trial Accruals

We base our accrued expenses related to clinical trials on estimates of patient enrollment and related expenses at clinical investigator sites as well as estimates for services received and efforts expended pursuant to contracts with multiple research institutions and contract research organizations that conduct and manage clinical trials on our

behalf. We make estimates of our accrued expenses as of each balance sheet date in our financial statements based on facts and circumstances known to us and based on contracted amounts applied to the level of patient enrollment and activity according to the clinical trial protocol. If timelines or contracts are modified based upon changes in the clinical trial protocol or scope of work to be performed, we modify our estimates of accrued expenses accordingly on a prospective basis.

If we do not identify costs that we have begun to incur, or if we underestimate or overestimate the level of services performed or the costs of these services, our actual expenses could differ from our estimates.

Results of Operations

Year Ended April 30, 2019 Compared to Year Ended April 30, 2018

The following table sets forth the key components of our results of operations for the years ended April 30, 2019 and 2018:

	Years Ended April 30,		Increase (Decrease)
	2019	2018	
	(in thousands)		
Income			
Revenue	$ 16,127	$ 8,394	$ 7,733
Operating Expenses			
Research and development expenses	35,021	18,237	16,784
General and administrative expenses	10,926	8,862	2,064
Other income			
Interest, exchange rate gain and other income	9,128	2,900	6,228

Revenue. Revenue was $16.1 million in the year ended April 30, 2019 compared to $8.4 million in the prior year. The increase of $7.7 million was due to $8.0 million of revenue from the Merck Option Agreement in the year ended April 30, 2019, which was offset by a decrease in grant revenue of $0.3 million. We expect that our reported revenues will trend downwards towards the end of this calendar year as we approach completion of the services related to the Option Agreement.

Research and Development Expenses. Research and development expenses were $35.0 million in the year ended April 30, 2019 compared to $18.2 million in the prior year, primarily due to an increase in spending on the intravitreal program and the related continuation of the Phase 2 clinical trial and early stage research activities. The impact of exchange rates on research and development expenses was a decrease of approximately $0.8 million compared to the same period in the prior year.

Research and development expenses by major programs or categories were as follows:

	Years Ended April 30,		Increase (Decrease)	
	2019	2018		
	(in thousands)			
Intravitreal	$ 10,169	$ 3,020	$ 7,149	237%
Clinical stage oral programs	6,141	4,212	1,929	46%
Additional oral programs	3,630	1,142	2,488	218%
Early stage research activities	15,081	9,863	5,218	53%
Total	$ 35,021	$ 18,237	$ 16,784	92%

Expenses for the intravitreal program were $10.2 million in the year ended April 30, 2019 compared to $3.0 million in the prior year due to the ongoing of the Phase 2 clinical trial for KVD001. We anticipate that expenses

will continue at current levels over the short term and then trend downwards as the clinical trial for KVD001 heads towards completion in the middle of fiscal year 2020.

Expenses for the clinical stage oral programs were $6.1 million in the year ended April 30, 2019 compared to $4.2 million in the prior year due to the initiation of the Phase 2 clinical trial for KVD900 and the commencement of the Phase 1 clinical trial for KVD824. We anticipate that expenses will continue to increase as the clinical trials continue for KVD900 and KVD824 in fiscal year 2020.

Expenses for the additional oral programs were $3.6 million in the year ended April 30, 2019 compared to $1.1 million in the prior year due to expenses incurred to advance KVD824 to a first-in-human study. We anticipate that expenses will continue at current levels or increase as we continue to pursue additional preclinical oral drug candidates for our HAE and DME portfolios in fiscal year 2020.

Expenses for early stage research activities were $15.1 million in the year ended April 30, 2019 compared to $9.9 million in the prior year due to increased headcount and additional projects compared to the same period in the prior year. We anticipate that expenses will continue to increase as multiple projects are assessed in discovery and drug candidates are advanced into early stage development.

General and Administrative Expenses. General and administrative expenses were $10.9 million in the year ended April 30, 2019 compared to $8.9 million in the prior year. The increase of $2.0 million was substantially due to an increase of $1.1 million in compensation expense, $0.4 million in professional fees, $0.2 million in depreciation expense and $0.3 million of other administrative expenses. We expect that these expenses will continue to increase as we build our administrative infrastructure to support our expanded research and development organization.

Other Income. Other income was $9.1 million for the year ended April 30, 2019 compared to $2.9 million for the prior year. The increase of $6.2 million was primarily due to an increase of $1.6 million in foreign currency exchange rate gains from cash and accounts payable denominated in foreign currency, $1.3 million of interest income and $3.3 million in income from research and development tax credits due to an increase in tax credit eligible spending during the year ended April 30, 2019.

Year Ended April 30, 2018 Compared to Year Ended April 30, 2017

The following table sets forth the key components of our results of operations for the years ended April 30, 2018 and 2017:

	Years Ended April 30,		Increase (Decrease)
	2018	2017	
	(in thousands)		
Income			
Revenue	$ 8,394	$ 1,504	$ 6,890
Operating Expenses			
Research and development expenses	18,237	12,666	5,571
General and administrative expenses	8,862	11,177	(2,315)
Other income			
Interest, exchange rate gain and other income	2,900	3,736	(836)

Revenue. Revenue was $8.4 million in the year ended April 30, 2018 compared to $1.5 million in the prior year. The increase of $6.9 million was due to $8.0 million of revenue from the Option Agreement in the year ended April 30, 2018, which was offset by a decrease in grant revenue of $1.1 million.

Research and Development Expenses. Research and development expenses were $18.2 million in the year ended April30, 2018 compared to $12.7 million in the prior year, primarily due to an increase in spending on the intravitreal, clinical stage oral programs, and early stage research activities which was somewhat offset by a

decrease in spending on our additional oral programs. The increase in expense also reflects an increase in the exchange rate of the British Pound Sterling ("GBP"), which is the currency in which most of our research and development expense is currently incurred. Approximately $0.7 million of the overall increase in research and development expense was due to the increase in the exchange rates.

Research and development expenses by major programs or categories were as follows:

	Years Ended April 30,		Increase (Decrease)	
	2018	2017		
	(in thousands)			
Intravitreal	$ 3,020	$ 571	$ 2,449	429%
Oral	4,212	2,785	1,427	51%
Additional oral programs	1,142	2,552	(1,410)	-55%
Early stage research activities	9,863	6,758	3,105	46%
Total	$ 18,237	$ 12,666	$ 5,571	44%

Expenses for the intravitreal program were $3.0 million in the year ended April 30, 2018 compared to $0.6 million in the prior year due to the initiation of a Phase 2 clinical trial for KVD001.

Expenses for the clinical stage oral programs were $4.2 million in the year ended April 30, 2018 compared to $2.8 million in the prior year due to the commencement of the first-in-human study for KVD900.

Expenses for the additional oral programs were $1.1 million in the year ended April 30, 2018 compared to $2.6 million in the prior year due to KVD900 entering the clinical stage of development in the year ended April 30, 2018.

Expenses for early stage research activities were $9.9 million in the year ended April 30, 2018 compared to $6.8 million in the prior year due to increased headcount and additional projects compared to the same period in the prior year.

General and Administrative Expenses. General and administrative expenses were $8.9 million in the year ended April 30, 2018 compared to $11.2 million in the prior year. The decrease of $2.3 million was substantially due to a $3.8 million decrease in professional fees attributable to the Carbylan transaction, partially offset by increases in payroll and related expenses of $0.4 million, $0.5 million of stock-based compensation and $0.6 million of other administrative expenses.

Other Income. Other income was $2.9 million for the year ended April 30, 2018 compared to $3.7 million for the prior year. The decrease of $0.8 million was primarily due to a $2.8 million decrease in foreign currency exchange rate gains from cash and accounts payable denominated in foreign currency, which was partially offset by a $2.0 million increase in income from research and development tax credits due to an increase in tax credit eligible spending during the year ended April 30, 2018.

Liquidity and Capital Resources

We have incurred losses since inception and cash outflows from operating activities for the year ended April 30, 2019. As of April 30, 2019, we have received cumulative equity funding totaling $155.9 million, $37.0 million from the Option Agreement and grant income of $8.9 million. We have an accumulated deficit of $92.5 million. We anticipate that we will continue to incur net losses for the foreseeable future as we continue the research and development efforts on our product candidates, hire additional staff, including clinical, scientific, operational, financial and management personnel, and incur additional costs associated with being a public company.

Cash Flows

The following table shows a summary of the net cash flow activity for the years ended April 30, 2019 and 2018:

	Years Ended April 30,	
	2019	2018
	(in thousands)	
Cash flows (used in) provided by operating activities	$ (36,365)	$ 10,558
Cash flows (used in) provided by investing activities	(69,422)	(1,427)
Cash flows provided by financing activities	87,943	8,986
Effect of exchange rate changes on cash	(1,205)	1,988
Net (decrease) increase in cash and cash equivalents	$ (19,049)	$ 20,105

Net cash (used in) provided by operating activities

The change in net cash used in operating activities resulted from the Merck Option Agreement, which provided $37.0 million of cash in the year ended April 30, 2018 and no cash in fiscal 2019. Exclusive of the proceeds from the Merck Option Agreement, the cash used in operations in fiscal 2018 was $26.4 million compared to cash used in operations of $36.4 million in fiscal 2019. The increase in fiscal 2019 is primarily attributable to increased operating expenses, offset by other income and increases in working capital.

Net cash (used in) provided by investing activities

Net cash used in investing activities for the year ended April 30, 2019 primarily consisted of $79.9 million of purchases of available for sale securities and capital expenditures of $1.1 million offset by sales and maturities of available securities of $11.5 million. Net cash used by investing activities for the year ended April 30, 2018 consisted of the acquisition of laboratory equipment and capital expenditures related to the offices in Cambridge, Massachusetts and Porton Down, United Kingdom.

Net cash provided by financing activities

Net cash provided by financing activities for the year ended April 30, 2019 primarily consisted of proceeds from the sale of common stock through a private placement transaction in August 2018 and a public offering in September 2018.

Operating Capital Requirements

To date, we have not generated any revenues from the sale of products and we do not have any products that have been approved for commercialization. We do not expect to generate significant product revenue unless and until we obtain regulatory approval for, and commercialize, one of our current or future product candidates. We anticipate that we will continue to incur losses for the foreseeable future, and we expect the losses to increase as we continue the development of, and seek regulatory approvals for, product candidates, and begin to commercialize any approved products. We are subject to all of the risks inherent in the development of new therapeutic products, and we may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business. We currently anticipate that, based upon our operating plans and existing capital resources, we have sufficient funding to operate for at least the next 12 months.

Until such time, if ever, as we can generate substantial revenues, we expect to finance our cash needs through a combination of equity and debt financings, collaborations, strategic partnerships and licensing arrangements. To the extent that additional capital is raised through the sale of stock or convertible debt securities, the ownership interest of existing stockholders will be diluted, and the terms of these newly issued securities may include liquidation or other preferences that adversely affect the rights of common stockholders. Debt financing, if available, may involve agreements that include increased fixed payment obligations and covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures, declaring dividends,

selling or licensing intellectual property rights and other operating restrictions that could adversely impact our ability to conduct business. Additional fundraising through collaborations, strategic partnerships or licensing arrangements with third parties may require us to relinquish valuable rights to product candidates, including our other technologies, future revenue streams or research programs, or grant licenses on terms that may not be favorable. If we are unable to raise additional funds when needed, we may be required to delay, limit, reduce or terminate product development or future commercialization efforts or grant rights to develop and commercialize its other product candidates even if we would otherwise prefer to develop and commercialize such product candidates internally.

Contractual Obligations and Commitments

We enter into contracts in the normal course of business with contract research organizations and clinical trial sites for the conduct of clinical trials, preclinical and clinical studies, professional consultants and other vendors for clinical supply manufacturing or other services. These contracts generally provide for termination on notice, and therefore are cancelable contracts and not included in the table of contractual obligations and commitments in Note 8 to the consolidated financial statements. Contractual obligations related to the expected future costs to be incurred to complete the ongoing toxicology studies and clinical trials, which have cancellation provisions, total $7.6 million at April 30, 2019. There were no long-term debt payment obligations as of April 30, 2019.

The table below summarizes our non-cancelable lease commitments:

	Payments Due by Period (In thousands)				
Contractual Obligations	**Total**	**Less Than 1 Year**	**1-3 Years**	**3-5 Years**	**More Than 5 Years**
Lease obligations	$ 2,232	$ 741	$ 802	$ 291	$ 398

As a result of the terms of grant income received in prior years, upon successful regulatory approval and following the first commercial sale of certain products, we will be required to pay royalty fees of up to $1 million within 90 days of the first commercial sale of the product subject to certain caps and follow on payments depending upon commercial success and type of product. Given the stage of development of the current pipeline of products it is not possible to predict with certainty the amount or timing of any such liability.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements as defined in the rules and regulations of the SEC.

Recent Accounting Pronouncements

For information regarding recent accounting pronouncements, please refer to Note 2, Summary of Significant Accounting Policies within our consolidated financial statements.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

Interest Rate Risk

Because of the short-term nature of the bank deposit arrangements and the very low interest rates prevailing in the United Kingdom and the United States, a sudden change in market interest rates would not be expected to have a material impact on our financial condition and/or results of operations. We do not believe that our cash or cash equivalents have significant risk of default or illiquidity.

We invest in marketable securities in accordance with our investment policy. The primary objectives of our investment policy are to preserve capital, maintain proper liquidity to meet operating needs and maximize yields. We place our excess cash with high credit quality financial institutions, commercial companies, and government agencies in order to limit the amount of credit exposure. Some of the securities we invest in may have market risk. This means that a change in prevailing interest rates may cause the principal amount of the investment to fluctuate.

Our investment exposure to market risk for changes in interest rates relates to the increase or decrease in the amount of interest income we can earn on our portfolio, changes in the market value due to changes in interest rates and other market factors as well as the increase or decrease in any realized gains and losses. Our investment portfolio includes only marketable securities and instruments with active secondary or resale markets to help ensure portfolio liquidity. An increase or decrease in interest rates along the entire interest rate yield curve would not significantly affect the fair value of our interest sensitive financial instruments, but may affect our future earnings and cash flows. We generally have the ability to hold our fixed income investments to maturity and therefore do not expect that our operating results, financial position or cash flows will be materially impacted due to a sudden change in interest rates. However, our future investment income may fall short of expectations due to changes in interest rates, or we may suffer losses in principal if forced to sell securities which have declined in market value due to changes in interest rates or other factors, such as changes in credit risk related to the securities' issuers. To minimize this risk, we schedule our investments to have maturities that coincide with our expected cash flow needs, thus avoiding the need to redeem an investment prior to its maturity date. Accordingly, we do not believe that we have material exposure to interest rate risk arising from our investments. We have not realized any significant losses from our investments.

Foreign Exchange Rate Risk

We maintain cash balances primarily in both USD and GBP to fund ongoing operations and manage foreign exchange risk. Cash, cash equivalents and available for sale securities as of April 30, 2019 was composed of $32 million in cash and cash equivalents which consisted of readily available checking and bank deposit accounts held primarily in both USD and GBP and $68.8 million of marketable securities. As of April 30, 2019, 88% of cash and cash equivalents were held in USD and 12% in GBP. We currently incur significant expense primarily in GBP and convert USD as needed to fund those expenses. We do not currently engage in exchange rate hedging or other similar activities to address our exchange rate risk. A 10% change in the exchange rate would result in an immaterial net gain or loss.

Effects of Inflation

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

Item 8. Financial Statements and Supplementary Data.

The financial statements required to be filed are listed in Item 15 and incorporated herein by reference.

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 required by Rule 13a-15(b) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), our management, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the design and operation of our disclosure controls and procedures as of April 30, 2019. 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. 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 the evaluation of our disclosure controls and procedures as of April 30, 2019 our Chief Executive Officer and Chief Financial Officer have concluded that, as of April 30, 2019, our disclosure controls and procedures were effective at the reasonable assurance level.

Management's Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined in Rules 13a-15(f) and 15d-15(f) promulgated under the Exchange Act as a process designed by, or under the supervision of, our principal executive and principal financial officers and effected by our board of directors, management and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. GAAP. Our internal control over financial reporting includes those policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect our transactions and dispositions of our assets;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. GAAP, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our management, with the participation of our principal executive officer and principal financial officer, assessed the effectiveness of our internal control over financial reporting as of April 30, 2019. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in its 2013 *Internal Control – Integrated Framework*. Based on our assessment, our management has concluded that, as of April 30, 2019, our internal control over financial reporting is effective based on those criteria.

This Annual Report on Form 10-K does not include an attestation report of our registered public accounting firm regarding internal control over financial reporting. For as long as we remain an "emerging growth company" as defined in Section 2(a) of the Securities Act of 1933, or the Securities Act, as modified by the Jumpstart Our Business Startups Act of 2012, we intend to take advantage of the exemption permitting us not to comply with the requirement that our independent registered public accounting firm provide an attestation on the effectiveness of our internal control over financial reporting.

Changes in Internal Controls over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the quarter ended April 30, 2019 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.

The information required by the Item is set forth in our 2019 Proxy Statement to be filed with the SEC within 120 days of April 30, 2019, and is incorporated by reference into this Annual Report on Form 10-K.

Item 11. Executive Compensation.

The information required by the Item is set forth in our 2019 Proxy Statement to be filed with the SEC within 120 days of April 30, 2019, and is incorporated by reference into this Annual Report on Form 10-K.

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

The information required by the Item is set forth in our 2019 Proxy Statement to be filed with the SEC within 120 days of April 30, 2019, and is incorporated by reference into this Annual Report on Form 10-K.

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

The information required by the Item is set forth in our 2019 Proxy Statement to be filed with the SEC within 120 days of April 30, 2019, and is incorporated by reference into this Annual Report on Form 10-K.

Item 14. Principal Accounting Fees and Services.

The information required by the Item is set forth in our 2019 Proxy Statement to be filed with the SEC within 120 days of April 30, 2019, and is incorporated by reference into this Annual Report on Form 10-K.

PART IV

Item 15. Exhibits, Financial Statement Schedules.

(a) The following documents are filed as part of, or incorporated by reference into, this Annual Report on Form 10-K:

(1) *Consolidated Financial Statements.* See Index to Financial Statements beginning on page F-1 of this Annual Report, which are incorporated by reference.

(2) *Financial Statement Schedules.* All schedules have been omitted because the information required to be presented in them is not applicable or is shown in the financial statements or related notes.

(3) *Exhibits.* We have filed, or incorporated into this Annual Report on Form 10-K by reference, the exhibits listed on the accompanying Exhibit Index.

(b) *Exhibits.*

Exhibit Number	Description of Document	Incorporated by reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
3.1	Amended and Restated Certificate of Incorporation.	S-1/A	333-201278	3.2	January 23, 2015	
3.2	Certificate of Amendment of Amended and Restated Certificate.	8-K	001-36830	3.1	November 23, 2016	
3.3	Certificate of Amendment of Amended and Restated Certificate.	8-K	001-36830	3.2	November 23, 2016	
3.4	Amended and Restated Bylaws.	8-K	001-36830	3.2	April 16, 2015	
4.1	Form of Common Stock Certificate.	S-1/A	333-201278	4.2	January 23, 2015	
4.2	Registration Rights Agreement, dated June 15, 2016, by and among the Registrant and the Sellers.	8-K	001-36930	10.1	November 23, 2016	
10.1#	Form of Indemnification Agreement.	S-1	333-201278	10.14	December 29, 2014	
10.2#	Carbylan 2015 Incentive Plan and forms of award agreements.	S-1/A	333-201278	10.3	January 23, 2015	
10.3#	2017 Equity Incentive Plan.	DEF 14A	001-36830	Appendix A	March 2, 2017	
10.4#	2017 Employee Stock Purchase Plan.	DEF 14A	001-36830	Appendix B	March 2, 2017	
10.5#	Amended and Restated Employment Agreement between the Registrant and T. Andrew Crockett, dated June 26, 2019.					X
10.6#	Amended and Restated Employment Agreement between the Registrant and Benjamin L. Palleiko, dated June 26, 2019.					X
10.7	Forms of Equity Agreements.	8-K	001-36830	99.1	June 29, 2018	
10.8	Office Lease Agreement by and between the Registrant and 55 Cambridge Parkway, LLC, dated May 30, 2017.	10-K	001-36830	10.12	July 27, 2017	
10.9	Underlease by and between the Registrant and Wiltshire Council, dated April 30, 2018.	8-K	001-36830	10.1	May 2, 2018	

Exhibit Number	Description of Document	Incorporated by reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.10	Option Agreement, dated October 6, 2017, by and between KalVista Pharmaceuticals Limited and Merck Sharp & Dohme Corp.	10-Q	001-36830	10.1	December 14, 2017	
10.11	Stock Purchase Agreement, dated October 6, 2017, by and between the Registrant and Merck Sharp & Dohme Corp.	10-Q	001-36830	10.2	December 14, 2017	
10.12	Voting Agreement, dated October 6, 2017, by and between the Registrant and Merck Sharp & Dohme Corp.	10-Q	001-36830	10.3	December 14, 2017	
10.13#	Amended and Restated Executive Employment Agreement dated June 26, 2019, by and between the Registrant and Andreas Maetzel.					X
10.14#	Forms of Equity Agreements under the 2017 Equity Incentive Plan.	8-K	001-36830	99.1	June 29, 2018	
10.15#	Service Agreement dated November 1, 2015, by and between KalVista Pharmaceuticals Ltd and Dr. Christopher M. Yea.	10-K	001-36830	10.15	July 27, 2018	
10.16	Form of Subscription, dated July 30, 2018.	8-K	001-36830	10.1	August 1, 2018	
10.17#	Amendment, dated January 31, 2019, to the Service Agreement dated November 1, 2015 by and between KalVista Pharmaceuticals Ltd and Dr. Christopher M. Yea.	10-Q	001-36830	10.1	March 14, 2019	
10.18#	Equity Acceleration Letter, dated March 11, 2019 by and between KalVista Pharmaceuticals Ltd and Dr. Christopher M. Yea	10-Q	001-36830	10.2	March 14, 2019	
10.19	Sales Agreement dated March 29, 2019 by and between KalVista Pharmaceuticals Ltd and Cantor Fitzgerald & Co.	8-K	001-36830	1.1	March 29, 2019	
10.21#	Amended and Restated Executive Employment Agreement by and between Registrant and Edward Feener					X
10.22#	Executive Employment Agreement by and between Registrant and Michael Smith					X
10.23#	Amendment, dated June 26, 2019, to the Service Agreement dated November 1, 2015 by and between KalVista Pharmaceuticals Ltd and Dr. Christopher M. Yea.					X
10.24	Description of the Registrant's Securities					X
21.1	Subsidiary of the Registrant.	10-K	001-36830	21.1	July 27, 2017	
23.1	Consent of Deloitte & Touche LLP.					X
24.1	Power of Attorney. (See signature page hereto.)					X

Exhibit Number	Description of Document	Incorporated by reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
31.1	Certification of Principal Executive Officer, pursuant to Rule 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
31.2	Certification of Principal Financial Officer, pursuant to Rule 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
32.1*	Certification of Chief Executive Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
32.2*	Certification of Chief Financial Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
101.INS	XBRL Instance Document.					X
101.SCH	XBRL Taxonomy Extension Schema Document.					X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.					X
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.					X
101.LAB	XBRL Taxonomy Extension Labels Linkbase Document.					X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.					X

Management contract or compensatory plan or arrangement.

* This certification is deemed not filed for purpose of section 18 of the Exchange Act or otherwise subject to the liability of that section, nor shall it be deemed incorporated by reference into any filing under the Securities Act or the Exchange Act.

** All schedules and exhibits to the Share Purchase Agreement have been omitted pursuant to Item 601(b)(2) of Regulation S-K. A copy of any omitted schedule and/or exhibit will be furnished to the Securities and Exchange Commission upon request.

Item 16. Form 10-K Summary.

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized.

KalVista Pharmaceuticals, Inc.

Date: July 15, 2019

By: /s/ T. Andrew Crockett
T. Andrew Crockett
Chief Executive Officer

Date: July 15, 2019

By: /s/ Benjamin L. Palleiko
Benjamin L. Palleiko
Chief Business Officer and Chief Financial Officer

POWER OF ATTORNEY

Each person whose individual signature appears below hereby authorizes and appoints Thomas Andrew Crockett and Benjamin L. Palleiko, and each of them, with full power of substitution and resubstitution and full power to act without the other, as his or her true and lawful attorney-in-fact and agent to act in his or her name, place and stead and to execute in the name and on behalf of each person, individually and in each capacity stated below, and to file any and all amendments to this annual report on Form 10-K and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing, ratifying and confirming all that said attorneys-in-fact and agents or any of them or their or his substitute or substitutes may lawfully do or cause to be done by virtue thereof.

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

Name	Title	Date
/s/ T. Andrew Crockett T. Andrew Crockett	Chief Executive Officer and Director (Principal Executive Officer)	July 15, 2019
/s/ Benjamin L Palleiko Benjamin L. Palleiko	Chief Business Officer and Chief Financial Officer (Principal Financial and Accounting Officer)	July 15, 2019
/s/ Martin Edwards Martin Edwards, M.D.	Director and Chairman	July 15, 2019
/s/ Albert Cha Albert Cha, M.D., Ph.D.	Director	July 15, 2019
/s/ Arnold Oronsky Arnold L. Oronsky, Ph.D.	Director	July 15, 2019
/s/ Brian J.G. Pereira Brian J.G. Pereira, M.D.	Director	July 15, 2019
/s/ Daniel Soland Daniel Soland	Director	July 15, 2019
/s/ Edward W. Unkart Edward W. Unkart	Director	July 15, 2019

KALVISTA PHARMACEUTICALS, INC.
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of KalVista Pharmaceuticals, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of KalVista Pharmaceuticals, Inc. and subsidiaries (the "Company") as of April 30, 2019 and 2018, the related consolidated statements of operations and comprehensive loss, changes in convertible preferred shares and stockholders' equity (deficit), and cash flows for each of the three years in the period ended April 30, 2019, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of April 30, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended April 30, 2019, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

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

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the 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 financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Deloitte & Touche LLP

Boston, Massachusetts
July 15, 2019

We have served as the Company's auditor since 2016.

KALVISTA PHARMACEUTICALS, INC.
Consolidated Balance Sheets
April 30, 2019 and 2018
(in thousands except share and per share amounts)

	2019	2018
Assets		
Current assets:		
Cash and cash equivalents	$ 32,006	$ 51,055
Marketable securities	68,805	—
Research and development tax credit receivable	11,315	6,834
Prepaid expenses and other current assets	3,420	1,491
Total current assets	115,546	59,380
Other assets	173	173
Property and equipment, net	2,413	1,836
Total assets	$ 118,132	$ 61,389
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 2,860	$ 1,433
Accrued expenses	5,593	3,087
Deferred revenue - current portion	9,545	18,475
Capital lease liability - current portion	54	221
Total current liabilities	18,052	23,216
Long-term liabilities:		
Deferred revenue - net of current portion	3,342	10,862
Capital lease liability - net of current portion	—	58
Total long-term liabilities	3,342	10,920
Commitments and contingencies (Note 8)		
Stockholders' equity:		
Common stock, $0.001 par value, 100,000,000 authorized		
Shares issued and outstanding: 17,277,750 at April 30, 2019 and 10,799,895 at April 30, 2018	17	11
Additional paid-in capital	191,123	100,011
Accumulated deficit	(92,476)	(71,660)
Accumulated other comprehensive loss	(1,926)	(1,109)
Total stockholders' equity	96,738	27,253
Total liabilities and stockholders' equity	$ 118,132	$ 61,389

See notes to consolidated financial statements.

KALVISTA PHARMACEUTICALS, INC.
Consolidated Statements of Operations and Comprehensive Loss
Years Ended April 30, 2019, 2018 and 2017
(in thousands, except share and per share amounts)

	2019	2018	2017
Revenue	$ 16,127	$ 8,394	$ 1,504
Operating expenses:			
Research and development expenses	35,021	18,237	12,666
General and administrative expenses	10,926	8,862	11,177
Total operating expenses	45,947	27,099	23,843
Operating loss	(29,820)	(18,705)	(22,339)
Other income:			
Interest income	1,397	82	36
Foreign currency exchange rate gain (loss)	49	(1,574)	1,371
Other income	7,682	4,392	2,329
Total other income	9,128	2,900	3,736
Loss before income taxes	(20,692)	(15,805)	(18,603)
Income tax expense	124	—	—
Net loss	(20,816)	(15,805)	(18,603)
Other comprehensive income (loss):			
Foreign currency translation adjustments	(1,257)	1,534	(2,568)
Unrealized holding gains on available-for-sale securities	440	—	—
Comprehensive loss	$ (21,633)	$ (14,271)	$ (21,171)
Net loss per share, basic and diluted	$ (1.38)	$ (1.53)	$ (4.47)
Weighted average common shares outstanding, basic and diluted	15,080,863	10,321,780	4,646,764

See notes to consolidated financial statements.

KALVISTA PHARMACEUTICALS, INC.
Consolidated Statements of Changes in Convertible Preferred Shares and Stockholders' Equity (Deficit)
Years Ended April 30, 2019, 2018 and 2017
(in thousands, except share and per share amounts)

	Series B Preferred Stock		Series A Preferred Stock		Total Preferred Stock	
	Number of Shares	Amount	Number of Shares	Amount	Shares	Amount
Balance, May 1, 2016	8,422,898	$ 33,002	15,900,000	$ 25,606	24,322,898	$ 58,608
Issuance of ordinary shares			—	—		—
Carbylan transaction	(8,422,898)	(33,002)	(15,900,000)	(25,606)	(24,322,898)	(58,608)
Stock-based compensation expense	—	—	—	—	—	—
Net loss	—	—	—	—	—	—
Foreign currency translation adjustments	—	—	—	—	—	—
Balance, April 30, 2017	—	—	—	—	—	—
Issuance of common stock	—	—	—	—	—	—
Issuance of common stock from stock options exercised	—	—	—	—	—	—
Stock-based compensation expense	—	—	—	—	—	—
Net loss	—	—	—	—	—	—
Foreign currency translation adjustments	—	—	—	—	—	—
Balance, April 30, 2018	—	—	—	—	—	—
Issuance of common stock	—	—	—	—	—	—
Issuance of common stock from stock options exercised	—	—	—	—	—	—
Stock-based compensation expense	—	—	—	—	—	—
Net loss	—	—	—	—	—	
Foreign currency translation adjustments	—	—	—	—	—	—
Unrealized holding gains from available-for-sale securities	—	—	—	—	—	—
Balance, April 30, 2019	—	$ —	—	$ —	$ —	$ —

	Ordinary Shares		Common Stock		Additional Paid-in	Accumulated	Accumulated Other Comprehensive	Total Stockholders' Equity
	Shares	Amount	Shares	Amount	Capital	Deficit	Income (Loss)	(Deficit)
Balance, May 1, 2016	2,167,367	$ 3	—	$ —	$ 212	$ (37,252)	$ (75)	$ (37,112)
Issuance of ordinary shares	396,719	2	—	—	—	—	—	2
Carbylan transaction	(2,564,086)	(5)	9,713,042	10	89,209	—	—	89,214
Stock-based compensation expense	—	—	—	—	394	—	—	394
Net loss	—	—	—	—	—	(18,603)	—	(18,603)
Foreign currency translation adjustments	—	—	—	—	—	—	(2,568)	(2,568)
Balance, April 30, 2017	—	—	9,713,042	10	89,815	(55,855)	(2,643)	31,327
Issuance of common stock	—	—	1,070,589	1	9,100	—	—	9,101
Issuance of common stock from stock options exercised	—	—	16,264	—	36	—	—	36
Stock-based compensation expense	—	—	—	—	1,060	—	—	1,060
Net loss	—	—	—	—	—	(15,805)	—	(15,805)
Foreign currency translation adjustments	—	—	—	—	—	—	1,534	1,534
Balance, April 30, 2018	—	—	10,799,895	11	100,011	(71,660)	(1,109)	27,253
Issuance of common stock	—	—	6,382,320	6	87,904	—	—	87,910
Issuance of common stock from employee awards exercised	—	—	95,535	—	242	—	—	242
Stock-based compensation expense	—	—	—	—	2,966	—	—	2,966
Net loss	—	—	—	—	—	(20,816)	—	(20,816)
Foreign currency translation adjustments	—	—	—	—	—	—	(1,257)	(1,257)
Unrealized holding gains from available-for-sale securities	—	—	—	—	—	—	440	440
Balance, April 30, 2019	—	$ —	17,277,750	$ 17	$ 191,123	$ (92,476)	$ (1,926)	$ 96,738

See notes to consolidated financial statements.

KALVISTA PHARMACEUTICALS, INC.
Consolidated Statements of Cash Flows
Years Ended April 30, 2019, 2018 and 2017
(in thousands)

	2019	2018	2017
Cash flows from operating activities:			
Net loss	$ (20,816)	$ (15,805)	$ (18,603)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:			
Depreciation and amortization	378	180	40
Stock-based compensation expense	2,966	1,060	394
Realized (gain) loss from available for sale securities	(23)	—	—
Foreign currency remeasurement loss	(80)	(651)	(1,371)
Changes in operating assets and liabilities, net of changes from business acquired:			
Research and development tax credit receivable	(4,883)	(4,256)	(600)
Grants and other receivables	—	319	29
Prepaid expenses and other current assets	(1,979)	(746)	(81)
Other assets	—	(123)	—
Accounts payable	1,534	217	(1,599)
Accrued expenses	2,665	1,132	(1,931)
Deferred revenue	(16,127)	29,231	—
Net cash provided by (used in) operating activities	(36,365)	10,558	(23,722)
Cash flows from investing activities:			
Cash acquired in transaction	—	—	34,139
Purchases of available for sale securities	(79,889)	—	—
Sales and maturities of available for sale securities	11,548	—	—
Acquisition of property and equipment	(1,081)	(1,427)	(74)
Net cash provided by (used in) investing activities	(69,422)	(1,427)	34,065
Cash flows from financing activities:			
Proceeds from issuance of common stock, net of issuance costs of $4,390 in the year ended April 30, 2019	87,910	9,137	—
Proceeds from issuance of common stock from exercise of stock options	242	—	2
Capital lease principal payments	(209)	(151)	—
Net cash provided by financing activities	87,943	8,986	2
Effect of exchange rate changes on cash and cash equivalents	(1,205)	1,988	(1,159)
Net (decrease) increase in cash and cash equivalents	(19,049)	20,105	9,186
Cash and cash equivalents, beginning year	51,055	30,950	21,764
Cash and cash equivalents, end of year	$ 32,006	$ 51,055	$ 30,950
Supplemental disclosures of cash flow information:			
Conversion of preferred stock and ordinary shares to common stock	$ —	$ —	$ 58,613
Capital leases	$ —	$ 513	$ —
Acquisition of property and equipment in accounts payable	$ —	$ 291	$ —

See notes to consolidated financial statements.

Note 1. Description of Business, Basis of Presentation and Going Concern

KalVista Pharmaceuticals, Inc. ("KalVista" or the "Company") is a clinical stage pharmaceutical company focused on the discovery, development and commercialization of small molecule protease inhibitors for diseases with significant unmet need. The Company's first product candidates are inhibitors of plasma kallikrein being developed for two indications: hereditary angioedema ("HAE") and diabetic macular edema ("DME"). The Company applies its insights into the chemistry of proteases and, with current programs, the biology of the plasma kallikrein system, to develop small molecule inhibitors with high selectivity, potency and bioavailability that it believes will make them successful treatments for disease.

KalVista has created a structurally diverse portfolio of oral plasma kallikrein inhibitors and advanced multiple drug candidates into clinical trials in order to create best-in-class oral therapies for both HAE and DME. In December 2018, the Company initiated a Phase 2 clinical study of KVD900 as a potential on-demand therapy for acute HAE attacks. This study is expected to complete in late 2019. In the case of DME, the Company is initially developing a plasma kallikrein inhibitor which is administered directly into the eye and anticipates ultimate development of orally delivered drugs. In December 2017 KalVista commenced a Phase 2 clinical trial of KVD001, the Company's most advanced DME drug candidate, that it anticipates will complete in the second half of 2019.

On November 21, 2016, KalVista Pharmaceuticals Limited ("KalVista Limited"), completed a share purchase transaction with Carbylan Therapeutics Inc. ("Carbylan"). Following the completion of the transaction, the Company was renamed KalVista Pharmaceuticals, Inc. and KalVista Limited became a wholly-owned subsidiary of the Company. The business being conducted by the Company became primarily the business conducted by KalVista Limited and KalVista Limited was identified as the acquirer for accounting purposes. The Company's financial statement presentation reflects the business of KalVista Limited for the periods prior to November 21, 2016 and the combined results of operations of KalVista Limited and Carbylan for the periods thereafter. The results of operations of the Carbylan business in the periods subsequent to acquisition date are not material.

In October 2017, KalVista Limited and Merck Sharp & Dohme Corp. ("Merck") entered into an option agreement (the "Option Agreement") under which the Company granted to Merck an option to acquire KVD001 through a period following completion of a Phase 2 clinical trial. The Company also granted to Merck a similar option to acquire investigational orally delivered molecules for DME (the "Oral DME Compounds") that the Company will continue to develop as part of its ongoing research and development activities, through a period following the completion of a Phase 2 clinical trial. Under the terms of the Option Agreement, Merck paid to the Company a non-refundable upfront fee of $37 million in November 2017. See Note 6 for further discussion of the arrangement with Merck.

The Company's headquarters is located in Cambridge, Massachusetts, with research activities located in Porton Down, United Kingdom and Boston, Massachusetts.

The Company has devoted substantially all of its efforts to research and development, including clinical trials of its product candidates. The Company has not completed the development of any product candidates. Pharmaceutical drug product candidates, like those being developed by the Company, require approvals from the U.S. Food and Drug Administration ("FDA") or foreign regulatory agencies prior to commercial sales. There can be no assurance that any product candidates will receive the necessary approvals and any failure to receive approval or delay in approval may have a material adverse impact on the Company's business and financial results. The Company has not yet commenced commercial operations. The Company is subject to a number of risks and uncertainties similar to those of other life science companies developing new products, including, among others, the risks related to the necessity to obtain adequate additional financing, to successfully develop product candidates, to obtain regulatory approval of product candidates, to comply with government regulations, to successfully commercialize its potential products, to the protection of proprietary technology and to the dependence on key individuals.

The Company has funded its operations primarily through the issuance of stock, the Option Agreement, the share purchase transaction with Carbylan, and grant income. As of April 30, 2019, the Company had an accumulated deficit of $92.5 million and cash, cash equivalents and available for sale securities totaling $100.8 million. The Company's working capital, primarily cash, is anticipated to fund the Company's operations for at least 12 months beyond the date of issuance of the consolidated financial statements. Accordingly, the consolidated financial statements have been prepared on a going concern basis.

The Company will need to expend substantial resources for research and development, including costs associated with the clinical testing of its product candidates and will need to obtain additional financing to fund its operations and to conduct trials for its product candidates. The Company will seek to finance future cash needs through equity offerings, future grants, corporate partnerships and product sales.

The Company has never been profitable and has incurred significant operating losses in each year since inception. Cash requirements may vary materially from those now planned because of changes in the Company's focus and direction of its research and development programs, competitive and technical advances, patent developments, regulatory changes or other developments. Additional financing will be required to continue operations after the Company exhausts its current cash resources and to continue its long-term plans for clinical trials and new product development. There can be no assurance that any such financing can be obtained by the Company, or if obtained, what the terms thereof may be, or that any amount that the Company is able to raise will be adequate to support the Company's working capital requirements until it achieves profitable operations. If adequate additional working capital is not secured when needed, the Company may be required to make reductions in spending, extend payment terms with suppliers, liquidate assets where possible and/or suspend or curtail planned research programs. Any of these actions could materially harm the Company's business and prospects.

Note 2. Summary of Significant Accounting Policies

Principles of consolidation: The accompanying consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

Use of estimates: The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and disclosure of contingent assets and liabilities, at the date of the consolidated financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates.

Foreign currency: The functional currency of the Company's foreign subsidiary is the Great Britain Pound Sterling. Assets and liabilities of the foreign subsidiary are translated using the exchange rate existing on each respective balance sheet date. Revenues and expenses are translated using average exchange rates prevailing throughout the year. The translation adjustments resulting from this process are included as a component of the accumulated other comprehensive loss. In addition, the Company's foreign subsidiary engages in transactions and holds balances denominated and settled in currencies other than the functional currency, and transaction gains or losses are recorded in the consolidated statement of operations.

Segment Reporting: The chief operating decision maker, the CEO, manages the Company's operations as a single operating segment for the purposes of assessing performance and making operating decisions.

Cash and cash equivalents: Cash and cash equivalents consist of bank deposits and money market accounts. Cash equivalents are carried at cost which approximates fair value due to their short-term nature. The Company considers all highly-liquid investments with an original maturity of 90 days or less to be cash equivalents.

The Company maintains its cash and cash equivalent balances with financial institutions that management believes are of high credit quality. The Company's cash and cash equivalent accounts at times may exceed federally insured limits. The Company has not experienced any losses in such accounts. The Company believes it is not exposed to any significant credit risk of cash and cash equivalents.

Research and development tax credit receivable: The research and development tax credit receivable consists of research and development expenses that have been claimed as research and development tax credits in accordance with the relevant U.K. tax legislation. These refundable tax credits are payable to the Company in cash and are carried on the consolidated balance sheet at the amount claimed and expected to be received from the U.K. government.

Property and equipment: Property and equipment are stated at cost less accumulated depreciation. Expenditures for repairs and maintenance are charged to expense as incurred. Upon retirement or sale, the costs of the assets disposed of and the related accumulated depreciation are eliminated from the accounts and any resulting gain or loss is reflected in the statement of operations. Depreciation is provided using the straight-line method over the estimated useful lives of the assets, which are as follows:

Asset Classification	Estimated Useful Life
Machinery and equipment	1-5 Years
Computer equipment	3-4 Years
Motor vehicles	4 Years
Leasehold improvements	5 Years or term of lease, if shorter

The Company assesses the impairment of long-lived assets whenever events or changes in circumstances indicate that the carrying value of such assets, or asset groups, may not be recoverable. Whenever events or changes in circumstances suggest that the carrying amount of long-lived assets may not be recoverable, the future undiscounted cash flows expected to be generated by the asset, or asset groups, from its use or eventual disposition is estimated. If the sum of the expected future undiscounted cash flows is less than the carrying amount of those assets, or asset groups, an impairment loss is recognized based on the excess of the carrying amount over the fair value of the assets, or asset groups.

Revenue recognition: The Company recognizes revenue from research and development arrangements and grant income. In accordance with Accounting Standards Codification (“ASC”) 606, “Revenue from Contracts with Customers,” revenue is recognized when a customer obtains control of promised goods or services. The amount of revenue recognized reflects the consideration to which the Company expects to be entitled to receive in exchange for these goods and services.

Performance obligations promised in a contract are identified based on the goods and services that will be transferred to the customer that are both capable of being distinct, whereby the customer can benefit from the good or service either on its own or together with other available resources, and are distinct in the context of the contract, whereby the transfer of the good or service is separately identifiable from other promises in the contract. To the extent a contract includes multiple promised goods and services, the Company must apply judgment to determine whether promised goods and services are capable of being distinct and distinct in the context of the contract. If these criteria are not met, the promised goods and services are accounted for as a combined performance obligation.

The transaction price is determined based on the consideration to which the Company will be entitled in exchange for transferring goods and services to the customer. To the extent the transaction price includes variable consideration, the Company estimates the amount of variable consideration that should be included in the transaction price utilizing either the expected value method or the most likely amount method depending on the nature of the variable consideration. Variable consideration is included in the transaction price if, in the Company’s judgment, it is probable that a significant future reversal of cumulative revenue under the contract will not occur. Any estimates, including the effect of the constraint on variable consideration, are evaluated at each reporting period for any changes.

If the contract contains a single performance obligation, the entire transaction price is allocated to the single performance obligation. Contracts that contain multiple performance obligations require an allocation of the transaction price to each performance obligation on a relative standalone selling price basis unless the transaction price is variable and meets the criteria to be allocated entirely to a performance obligation or to a distinct service that

forms part of a single performance obligation. The consideration to be received is allocated among the separate performance obligations based on relative standalone selling prices.

The Company satisfies performance obligations either over time or at a point in time. Revenue is recognized over time if either: (1) the customer simultaneously receives and consumes the benefits provided by the entity's performance (2) the entity's performance creates or enhances an asset that the customer controls as the asset is created or enhanced or (3) the entity's performance does not create an asset with an alternative use to the entity and the entity has an enforceable right to payment for performance completed to date. If the entity does not satisfy a performance obligation over time, the related performance obligation is satisfied at a point in time by transferring the control of a promised good or service to a customer. ASC 606 requires the Company to select a single revenue recognition method for the performance obligation that faithfully depicts the Company's performance in transferring control of the goods and services. The guidance allows for two methods to measure progress toward complete satisfaction of a performance obligation, depending on the facts and circumstances:

Output methods - recognize revenue on the basis of direct measurements of the value to the customer of the goods or services transferred to date relative to the remaining goods or services promised under the contract (e.g., surveys of performance completed to date, appraisals of results achieved, milestones reached, time elapsed, and units of produced or units delivered); and

Input methods - recognize revenue on the basis of the entity's efforts or inputs to the satisfaction of a performance obligation (e.g., resources consumed, labor hours expended, costs incurred, or time elapsed) relative to the total expected inputs to the satisfaction of that performance obligation.

Licenses of intellectual property: If the license to the Company's intellectual property is determined to be distinct from the other performance obligations identified in the arrangement, the Company must consider the nature of the intellectual property to which the customer will have rights (i.e., access at a point in time or benefit of intellectual property enhancements over time). The Company recognizes revenue from non-refundable, up-front fees allocated to the license at a point in time/over the period the license is transferred to the customer and the customer is able to use and benefit from the license. For licenses that are bundled with other promises, the Company utilizes judgment to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or at a point in time and, if over time, the appropriate method of measuring progress for purposes of recognizing revenue from non-refundable, up-front fees. The Company evaluates the measure of progress each reporting period and, if necessary, adjusts the measure of performance and related revenue recognition.

Milestone payments: At the inception of each arrangement that includes development and regulatory milestone payments for promised goods and services, the Company evaluates the circumstances of whether the milestones will be reached and estimates the amount to be included in the transaction price that will not cause a significant revenue reversal. The Company will evaluate these types of payments for customer options once those options have been exercised. ASC 606 suggests two alternatives to use when estimating the amount of variable consideration: the expected value method and the most likely amount method. Under the expected value method, an entity considers the sum of probability-weighted amounts in a range of possible consideration amounts. Under the most likely amount method, an entity considers the single most likely amount in a range of possible consideration amounts. The Company will use the most likely amount method for development and regulatory milestone payments as management believes this method is the better predictor because the Company expects to be entitled to only one of two possible amounts. Additionally, management believes that the most likely amount of milestone consideration is its stated amount. If it is probable that a significant revenue reversal would not occur, the associated milestone value is included in the transaction price. The transaction price is then allocated to performance obligations on a specific basis or on a relative standalone selling price basis. The Company recognizes revenue as or when the performance obligations under the contract are satisfied. At the end of each subsequent reporting period, the Company re-evaluates whether it is probable that a significant revenue reversal will not occur in future periods, and if necessary, adjusts its estimates of the overall transaction price. Any such adjustments are recorded on a cumulative catch-up basis, which would affect revenues and earnings in the period of adjustment.

Royalties: For arrangements that include sales-based royalties, including milestone payments based on the level of sales, and the license is deemed to be the predominant item to which the royalties relate, the Company

recognizes revenue at the later of: (1) when the related sales occur, or (2) when the performance obligation to which some or all of the royalty has been allocated has been satisfied (or partially satisfied).

Up-front payments: Up-front payments and fees are recorded as deferred revenue upon receipt or when due and may require deferral of revenue recognition to a future period until the Company performs its obligations under these arrangements. Amounts payable to the Company are recorded as accounts receivable when the Company's right to consideration is unconditional. The Company does not assess whether a contract has a significant financing component if the expectation at contract inception is such that the period between payment by the customer and the transfer of the promised goods or services to the customer will be one year or less.

Contract Balances: The Company recognizes a contract asset when the Company transfers goods or services to a customer before the customer pays consideration or before payment is due, excluding any amounts presented as a receivable (i.e., accounts receivable). A contract asset is an entity's right to consideration in exchange for goods or services that the entity has transferred to a customer. The contract liabilities (i.e. deferred revenue) primarily relate to contracts where the Company has received payment but has not yet satisfied the related performance obligations. The advance consideration received from customers for R&D services and/or licenses is a contract liability, recorded as deferred revenue, until the underlying performance obligations are transferred to the customer.

Research and development: Research and development costs are expensed as incurred and include, but are not limited to:

- Employee-related expenses including salaries, benefits, travel, and share-based compensation expense for research and development personnel;
- Costs associated with preclinical and development activities;
- Costs associated with regulatory operations.

Income taxes: The Company uses the asset and liability method for accounting for income taxes. Under this method, deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective income tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The Company evaluates the realizability of its deferred tax assets and establishes a valuation allowance when it is more likely than not that all or a portion of deferred tax assets will not be realized. The Company has provided a full valuation allowance on its deferred tax assets.

Relative to accounting for uncertainties in tax positions, the Company recognizes the tax benefit of tax positions to the extent that the benefit will more likely than not be realized. The determination as to whether the tax benefit will more likely than not be realized is based upon the technical merits of the tax position as well as consideration of the available facts and circumstances. For those tax positions where it is more likely than not that a tax benefit will be sustained, the Company records the largest amount of tax benefit with a greater than 50% likelihood of being realized upon ultimate settlement with a taxing authority having full knowledge of all relevant information. For those income tax positions where it is not more likely than not that a tax benefit will be sustained, the Company does not recognize a tax benefit in the financial statements.

The Company recognizes interest and penalties related to uncertain tax positions, if any, as a component of income tax expense. As the Company has no uncertain tax positions, there were no interest or penalties charges recognized in the statement of operations for any years.

Stock based compensation: The Company accounts for stock based compensation arrangements at fair value. The fair value is recognized over the period during which the recipient is required to provide services (usually the vesting period), on a straight-line basis.

Net Loss per Share: Basic and diluted net loss per share is presented in conformity with the two-class method required for participating securities. Under the two-class method, basic net loss per share is computed by dividing the net loss attributable to common stockholders by the weighted average number of common shares outstanding

during the period. Net loss attributable to common stockholders is determined by allocating undistributed earnings between holders of common and convertible preferred shares, based on the contractual dividend rights contained in the preferred share agreement. Where there is an undistributed loss, no amount is allocated to the convertible preferred shares. Diluted net loss per share is computed by dividing net loss by the sum of the weighted average number of common stock and the number of dilutive potential common stock equivalents outstanding during the period. Potential dilutive common share equivalents consist of the incremental common shares issuable upon the exercise of vested share options or the conversion of preferred stock.

Potential dilutive common share equivalents consist of:

	April 30,		
	2019	2018	2017
Stock options and awards	1,784,338	388,366	148,469

In computing diluted earnings per share, common stock equivalents are not considered in periods in which a net loss is reported, as the inclusion of the common stock equivalents would be anti-dilutive. As a result, there is no difference between the Company's basic and diluted loss per share in the periods presented (in thousands, except share and per share amounts):

Basic and diluted net loss per share	April 30,		
	2019	2018	2017
Net loss	$ (20,816)	$ (15,805)	$ (18,603)
Less: dividend on Series A	—	—	(935)
Less: dividend on Series B	—	—	(1,237)
Loss available to common stockholders	(20,816)	(15,805)	(20,775)
Weighted average common shares, basic and diluted	15,080,863	10,321,780	4,646,764
Net loss per share, basic and diluted	$ (1.38)	$ (1.53)	$ (4.47)

The weighted average shares outstanding, reported loss per share and potential dilutive common share equivalents for the periods prior to November 21, 2016, the date of the Carbylan transaction, have been retrospectively adjusted to reflect historical weighted-average number of common shares outstanding multiplied by the exchange ratio established in the share purchase agreement.

Fair value measurement: The Company classifies fair value measurements using a three level hierarchy that prioritizes the inputs used to measure fair value. This hierarchy requires entities to maximize the use of observable inputs and minimize the use of unobservable inputs. The three levels of inputs used to measure fair value are as follows: Level 1, quoted market prices in active markets for identical assets or liabilities; Level 2, observable inputs other than quoted market prices included in Level 1, such as quoted market prices for markets that are not active or other inputs that are observable or can be corroborated by observable market data; and Level 3, unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities, including certain pricing models, discounted cash flow methodologies and similar techniques that use significant unobservable inputs. These fair values are obtained from independent pricing services, which utilize Level 1 and Level 2 inputs.

The following table summarizes the cash and cash equivalents and marketable securities measured at fair value on a recurring basis as of April 30, 2019:

	Level 1	Level 2	Level 3	Balance at April 30, 2019
Cash and cash equivalents	$ 30,044	$ 1,962	$ —	$ 32,006
Marketable securities:				
Corporate debt securities	—	56,487	—	56,487
U.S. government agency securities	—	12,318	—	12,318
	$ 30,044	$ 70,767	$ —	$ 100,811

Recently adopted accounting pronouncements: In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards update ("ASU") 2014-09, "Revenue from Contracts with Customers," requiring an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. The updated standard replaced most existing revenue recognition guidance in U.S. GAAP when it became effective and permits the use of either the retrospective or cumulative effect transition method. The Company adopted the updated standard May 1, 2018 using the modified retrospective method of adoption for all open contracts, while all comparative prior periods continue to be presented under ASC 605, "Revenue Recognition." The Company's only significant revenue generating arrangement is the arrangement with Merck. The adoption of this guidance on the consolidated financial statements had no impact on the date of adoption and through April 30, 2019, other than the enhanced footnote disclosures.

Recently issued accounting pronouncements not yet adopted: In February 2016, the FASB issued new lease accounting guidance in ASU No. 2016-02, "Leases" (Topic 842). Under the new guidance, lessees will be required to recognize for all leases (with the exception of short term leases) at the commencement date: (1) a lease liability, which is a lessee's obligation to make lease payments arising from a lease, measured on a discounted basis; and (2) a right of use asset, which is an asset that represents the lessee's right to use, or control the use of, a specified asset for the lease term. The new lease guidance is effective for the Company beginning May 1, 2019. As a result of implementing Topic 842, the Company expects to record total right of use assets of approximately $1.9 million with offsetting liabilities of approximately the same amount.

Note 3. Marketable Securities

The objectives of the Company's investment policy are to ensure the safety and preservation of invested funds, as well as to maintain liquidity sufficient to meet cash flow requirements. The Company invests its excess cash in high-credit quality financial institutions, commercial companies, and government agencies in order to limit the amount of its credit exposure. The Company has not realized any significant losses from its investments.

The Company classifies all of its investments as available-for-sale. Unrealized gains and losses on investments are recognized in comprehensive loss, unless an unrealized loss is considered to be other than temporary, in which case the unrealized loss is charged to operations. The Company periodically reviews its investments for other than temporary declines in fair value below cost basis and whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. The Company believes the individual unrealized losses represent temporary declines primarily resulting from interest rate changes. Realized gains and losses are reflected in interest and other income in the consolidated statements of operations and comprehensive loss and are determined using the specific identification method with transactions recorded on a settlement date basis.

The following tables summarize the fair value of the Company's investments by type:

	April 30, 2019			
	Amortized Cost	Unrealized Gains	Unrealized Losses	Estimated Fair Value
Corporate debt securities	$ 56,083	$ 405	$ (1)	$ 56,487
Obligation of the U.S. Government and its agencies	12,282	36	—	12,318
Total investments	$ 68,365	$ 441	$ (1)	$ 68,805

The following table summarizes the scheduled maturity for the Company's investments at April 30, 2019:

	April 30, 2019
Maturing in one year or less	$ 38,805
Maturing after one year through two years	21,780
Maturing after two years	8,220
Total investments	$ 68,805

Note 4. Property and Equipment

At April 30, 2019 and 2018, property and equipment consisted of (in thousands):

	2019	2018
Laboratory equipment	$ 1,391	$ 1,277
Office equipment	36	33
Furniture & fixtures	175	76
Leasehold improvements	1,707	1,005
	3,309	2,391
Less accumulated depreciation	(896)	(555)
	$ 2,413	$ 1,836

For the years ended April 30, 2019, 2018 and 2017, depreciation expense was $378,000, $180,000 and $40,000, respectively. At April 30, 2019, the Company had laboratory equipment under a capital lease with a cost of $505,000 and accumulated depreciation of $242,000.

Note 5. Accrued Expenses

At April 30, 2019 and 2018, accrued expenses consisted of (in thousands):

	2019	2018
Accrued research expense	$ 3,065	$ 1,192
Accrued compensation	1,949	1,393
Accrued professional fees	186	164
Other accrued expenses	393	338
	$ 5,593	$ 3,087

Note 6. Merck Arrangement

On October 6, 2017, the Company's wholly-owned U.K. based subsidiary KalVista Pharmaceuticals Limited ("KalVista Limited) and Merck Sharp & Dohme Corp. ("Merck") entered into an option agreement (the "Option Agreement"). The Company is the guarantor of KalVista Limited's obligations under the Merck Option Agreement.

Under the terms of the Option Agreement, the Company, through KalVista Limited, has granted to Merck an option to acquire KVD001 through a period following completion of a Phase 2 clinical trial. The Company, through KalVista Limited, has also granted to Merck a similar option to acquire investigational orally delivered molecules for DME that the Company will continue to develop as part of its ongoing research and development activities, through a period following the completion of a Phase 2 clinical trial. The Company, through KalVista Limited, also granted to Merck a non-exclusive license to use the compounds solely for research purposes, and is required to use its diligent efforts to develop the two compounds through the completion of Phase 2 clinical trials. The Company will fund and retain control over the planned Phase 2 clinical trial of KVD001 as well as development of the investigational oral DME compounds through Phase 2 clinical trials unless Merck determines to exercise its options earlier, at which point Merck will take responsibility for all development and commercialization activities for the compounds. The Company's development efforts under the Option Agreement are governed by a joint steering committee consisting of equal representatives from the Company and Merck.

Under the terms of the Option Agreement, Merck paid a non-refundable upfront fee of $37 million to KalVista Limited in November 2017. If Merck exercises both options under the Option Agreement, KalVista Limited could receive up to an additional $715 million composed of option exercise payments and clinical, regulatory, and sales-based milestone payments. In addition, the Company is eligible for tiered royalties on global net sales ranging from mid-single digits to double digit percentages. Merck may terminate the Option Agreement at any time upon written notice to the Company. KalVista Limited may terminate the Option Agreement in the event of Merck's material breach of the Option Agreement, subject to cure.

Concurrent with the Option Agreement, the Company and Merck also entered into a stock purchase agreement (the "Stock Purchase Agreement") pursuant to which Merck paid approximately $9.1 million to purchase 1,070,589 new shares of the Company's common stock at a price of $8.50 per share.

The Company determined that the Option Agreement and the Stock Purchase Agreement were negotiated and executed contemporaneously, are for a single commercial objective and therefore should be combined as one arrangement for accounting purposes. The aggregate proceeds from the arrangement were allocated to the equity arrangement and to the revenue arrangement.

Accounting under ASC 605

The Company determined that the deliverables under the Option Agreement included (i) a non-exclusive license to use the two compounds solely for research purposes, (ii) research and development services related to the development of KVD001 through completion of a Phase 2 clinical trial, (iii) research and development services related to the development of the Oral DME Compounds, and (iv) unregistered shares of the Company's common stock. The Company has concluded that the common stock deliverable identified at the inception of the arrangement has standalone value from the other deliverables and therefore represents a separate unit of accounting, which was measured at fair value and $9.1 million was recognized in stockholders' equity. The Company further determined that the research license granted did not have standalone value from the respective research and development services, as the license could not be used on its own by Merck for its intended purpose of developing and commercializing KVD001 and the Oral DME Compounds on a standalone basis. As a result, the research license was combined with the respective research and development services for KVD001 and the Oral DME Compounds as two units of accounting. The Company determined that neither vendor-specific objective evidence or third-party evidence was available for either of the units of accounting identified at arrangement inception. Accordingly, the selling price of each unit of accounting was developed using management's best estimate of selling price. The Company developed the best estimate of selling price for the KVD001 Unit of Accounting and Oral DME Unit of Accounting by applying an analysis of discounted cash flows and the allocable arrangement consideration of $37.0 million was allocated among the separate units of accounting using the relative selling price method. The amounts allocated to each unit of accounting were being recognized as revenue on a proportional performance basis.

Accounting under ASC 606

The Company evaluated the revenue arrangement in accordance with the provisions of ASC 606 upon the adoption of this guidance on May 1, 2018. The Company determined that the revenue arrangement contains the following promised services: (i) a non-exclusive license to use the two compounds solely for research purposes, (ii)

research and development services related to the development of KVD001 through completion of a Phase 2 clinical trial, and (iii) research and development services related to the development of the Oral DME Compounds.

The Company has determined that Merck's options to acquire KVD001 and the Oral DME Compounds are customer options. Merck is not contractually obligated to exercise the options. The Company has determined that Merck's options to acquire KVD001 and the Oral DME Compounds are not priced below their standalone selling prices and do not grant the customer a material right. Consequently, the Company determined that Merck's options are not performance obligations at the inception of the arrangement.

The Company further determined that the research license granted is not distinct from the respective research and development services, as the license could not be used on its own by Merck for its intended purpose of developing and commercializing KVD001 and the Oral DME Compounds and is significantly interdependent with the respective research and development services. As a result, the research license has been combined with the respective research and development services for KVD001 and the Oral DME Compounds as two performance obligations (the "KVD001 Performance Obligation" and the "Oral DME Performance Obligation").

Therefore, the Company has identified two performance obligations under the revenue arrangement as follows: (i) the KVD001 Performance Obligation, and (ii) the Oral DME Performance Obligation. The transaction price that is allocable at inception of the arrangement is comprised of the non-refundable upfront payment of $37.0 million and the payment for the common stock of $9.1 million. The Company allocated the $9.1 million payment to the common stock, as this represented the fair value of the shares issued based on arm's length negotiations between the Company and Merck. The amount allocated to the common stock was recorded in stockholders' equity at the date of issuance. The Company allocated the remaining transaction price of $37.0 million to the remaining performance obligations using the relative standalone selling price.

There is uncertainty that the events to obtain and the development and regulatory milestones will be achieved given the nature of clinical development and the stage of the research. The development and regulatory milestones will be constrained until the Company is sure that a significant revenue reversal will not occur. The royalties and sales-based milestones relate predominantly to a license of intellectual property and are determined by sales or usage-based thresholds. The royalties and sales-based milestones will be accounted for under the sales-based royalty recognition exception and the Company will not recognize revenue until the subsequent sale of a licensed product (achievement of sales-based milestone) occurs.

The Company developed the standalone selling price for the KVD001 Performance Obligation and Oral DME Performance by applying an analysis of discounted cash flows and the transaction price was allocated among the separate performance obligations using the relative standalone selling price method. The amount allocated to each Performance Obligation will be recognized as revenue using an input method of performance completed to date comparing the total effort incurred with the Company's estimate of total effort required to perform the R&D services for each respective performance obligation. For the fiscal years ended April 30, 2019 and 2018, the Company recognized approximately $16.1 million and $8.0 million of revenue with respect to the arrangement with Merck, all of which was recognized from the deferred revenue balance. As of April 30, 2019, deferred revenue on the consolidated balance sheet is $12.9 million, which is related to the remaining unsatisfied performance obligations in this arrangement. Approximately $9.5 million related to the unsatisfied performance obligation is expected to be satisfied in the next 12 months and the remaining $3.4 million will be satisfied in the four years thereafter. Upon adoption of ASC 606 on May 1, 2018, the Company concluded that there was no change in the amount or timing of revenue recognition as compared to its historical practices for this arrangement. Accordingly, there was no adjustment upon adoption.

Note 7. Stock-Based Compensation

The Company has three plans that provide for equity-based compensation. Two are legacy plans that were maintained by Carbylan and KalVista Limited and for which no further grants are to be made. Under the 2017 Equity Incentive Plan ("2017 Plan"), 2,586,589 shares of the Company's common stock are reserved for issuance upon exercise of stock options. As of April 30, 2019, 802,251 stock options remain available for grant under the 2017 Plan.

Initial awards generally vest 25% after one year and then ratably on a monthly basis over the next three years. Recurring grants typically vest on a monthly basis over four years. Stock option grants expire after ten years.

The Company recognizes stock-based compensation expense over the requisite service period based on the grant date fair value of the award. The Company has elected to use the Black-Scholes option pricing model to determine the fair value of awards granted. The determination of the fair value of stock-based awards utilizing the Black-Scholes model is affected by the share price and a number of assumptions, including expected volatility, expected life, risk-free interest rate and expected dividends. Due to insufficient history of the Company's stock price, the stock-price volatility assumption is based on the historical volatility of a peer group of publicly traded companies. The expected life of the awards is estimated based on the simplified method. The risk-free interest rate assumption is based on observed interest rates appropriate for the terms of the awards. The dividend yield assumption is based on history and expectation of paying no dividends. Forfeitures have not been material in the periods presented.

The fair value of the share-based awards was measured with the following weighted-average assumptions for the fiscal years ended April 30:

	2019	2018	2017
Risk-free interest rate	2.90	1.94	2.08
Expected life of the options	6.25 years	6.25 years	6.25 years
Expected volatility of the underlying stock	77.2%	76.9%	82.3%
Expected dividend rate	0%	0%	0%

Stock-based compensation was reflected in the Company's consolidated statement of operations and comprehensive loss as follows (in thousands):

	Year ended April 30,		
	2019	2018	2017
Research and development	$ 2,005	$ 320	$ 143
General and administrative	961	740	251
Total stock-based compensation expense	$ 2,966	$ 1,060	$ 394

A summary of option activity for the year ended April 30, 2019 and changes during the years then ended is presented below:

	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life	Aggregate Intrinsic Value
Outstanding at May 1, 2018	918,694	$ 5.87	8.51	$ 3,465
Exercised	(53,035)	4.56		
Granted	895,200	13.84		
Cancelled	(21,521)	11.01		
Outstanding at April 30, 2019	1,739,338	$ 9.95	8.47	$ 22,807
Exercisable at April 30, 2019	707,667	$ 6.93	7.81	$ 11,370
Vested and expected to vest at April 30, 2019	1,739,338	$ 9.95	8.47	$ 22,807

The weighted-average grant date fair value of stock options granted during the years ended, April 30, 2019, 2018 and 2017 was $9.62, $4.87, and $5.68, respectively. The cash received and intrinsic value of options exercised was not material in the periods presented.

As of April 30, 2019, there was $8.7 million of unrecognized compensation expense related to unvested awards, which is expected to be recognized over a weighted-average period of 2.8 years.

Note 8. Commitments and Contingencies

Clinical Studies: The Company enters into contractual agreements with contract research organizations in connection with preclinical and toxicology studies and clinical trials. Amounts due under these agreements are invoiced to the Company on predetermined schedules during the course of the toxicology studies and clinical trials and are not refundable regardless of the outcome. The Company has a contractual obligation related to the expected future costs to be incurred to complete the ongoing toxicology studies and clinical trials. The remaining commitment, which has cancellation provisions, totaled $7.6 million at April 30, 2019.

Lease commitments: The Company is party to several operating leases for office and laboratory space as well as certain lab equipment. Rent expense was $0.7 million, $0.6 million and $0.5 million for the years ended April 30, 2019, 2018 and 2017, respectively, and is reflected in general and administrative expenses and research and development expenses as determined by the underlying activities.

Future minimum payments under these leases as of April 30, 2019 are as follows (in thousands):

Year ended April 30:	Capital Leases	Operating Leases
2020	$ 54	$ 687
2021	—	474
2022	—	328
2023	—	194
2024 and thereafter	—	495
Total minimum lease payments	54	$ 2,178
Less amounts representing interest	—	
Present value of minimum payments	54	
Current portion	54	
Long-term portion	$ —	

Indemnification: In the normal course of business, the Company enters into contracts and agreements that contain a variety of representations and warranties and provide for general indemnification. The Company's exposure under these agreements is unknown because it involves future claims that may be made against the Company but have not yet been made. To date, the Company has not paid any claims or been required to defend any action related to its indemnification obligations. However, the Company may record charges in the future as a result of these indemnification obligations. No amounts associated with such indemnifications have been recorded to date.

Contingencies: From time to time, the Company may have certain contingent liabilities that arise in the ordinary course of business activities. The Company accrues a liability for such matters when it is probable that future expenditures will be made and such expenditures can be reasonably estimated. There were no contingent liabilities requiring accrual at April 30, 2019 and 2018.

As a result of the terms of grant income received in prior years, upon successful regulatory approval and following the first commercial sale of certain products, the Company will be required to pay royalty fees of up to $1 million within 90 days of the first commercial sale of the product subject to certain caps and follow on payments depending upon commercial success and type of product. Given the stage of development of the current pipeline of products it is not possible to predict with certainty the amount or timing of any such liability.

Note 9. Income Taxes

The components of the Company's loss before income taxes for the years ended April 30, 2019, 2018 and 2017 consisted of the following:

	2019	2018	2017
Domestic	$ (5,006)	$ (4,020)	$ (2,110)
Foreign	(15,686)	(11,785)	(16,493)
	$ (20,692)	$ (15,805)	$ (18,603)

For the year ended April 30, 2019, the Company has recorded a U.S. Federal income tax expense of $124,000. Prior to fiscal year 2019, the company incurred net losses since inception and has not historically recorded a benefit or expense related to income taxes.

A reconciliation between the effective tax rates and statutory rates for the years ended April 30, is as follows:

	2019	2018	2017
Income tax benefit at U.S. federal statutory rate	21.0%	30.4%	34.0%
Foreign rate differential	(0.9)%	(4.3)%	(11.7)%
Nondeductible expenses - UK R&D credit	(5.9)%	(16.3)%	(9.2)%
Other	(0.9)%	(4.5)%	(1.3)%
Effect of change in tax rates	—	(3.6)%	—
U.S. tax on international operations	(7.6)%	—	—
Valuation allowance	(6.3)%	(1.7)%	(11.8)%
	(0.6)%	—	—

The tax effect of significant temporary differences representing deferred tax assets and liabilities as of April 30, 2019 and 2018 is as follows (in thousands):

	2019	2018
Net operating loss (“NOL”) carryforwards	$ 7,424	$ 6,596
Other	968	240
Valuation allowance	(8,392)	(6,836)
Net deferred tax asset	$ —	$ —

Management of the Company has determined it is more likely than not that the Company will not recognize the benefits of net deferred tax assets, the majority of which are NOLs, and has provided a valuation allowance for the full amount of deferred tax assets as of as of April 30, 2019 and 2018, respectively. During the years ended April 30, 2019, 2018, and 2017 the valuation allowance changed by $1.6 million, $1.0 million and $3.0 million, respectively. Realization of deferred tax assets is dependent upon the generation of future taxable income.

As of April 30, 2019, the Company fully utilized all available NOL carryforwards for federal income tax purposes. The Company also has NOL carryforwards for state income taxes of $3.9 million that begin to expire in 2036 and NOL carryforwards for U.K. income taxes of $33.3 million that do not expire. The ability to utilize the Company’s domestic net operating losses is limited due to changes in ownership as defined by Section 382 of the Internal Revenue Code (the “Code”). Under the provisions of Sections 382 and 383 of the Code, a change of control, as defined in the Code, imposes an annual limitation on the amount of the Company’s net operating loss and tax credit carryforwards, and other tax attributes that can be used to reduce future tax liabilities. The Company determined that ownership changes occurred as a result of the Carbylan transaction in November 2016 and a public offering in September 2018. As a result of this ownership change, the Company’s U.S. federal and California NOL carryforwards may be limited. It is estimated that the effect of Section 382 will generally limit the amount of the net operating loss carryforwards of KalVista that are available to offset future taxable income to approximately $5.0 million, annually.

In December 2017, the Tax Cuts and Jobs Act (“TCJA”) was signed into law. Among other things, the TCJA permanently lowers the corporate federal income tax rate to 21% from the existing maximum rate of 35%, effective for tax years including or commencing January 1, 2018. As a result of the reduction of the corporate federal income tax rate to 21%, U.S. GAAP requires companies to revalue their deferred tax assets and deferred tax liabilities as of

the date of enactment, with the resulting tax effects accounted for in the reporting period of enactment. This revaluation resulted in a reduction of the Company's deferred tax assets of $578,000 and a corresponding reduction in the valuation allowance. As a result, there was no impact on our consolidated statements of operations from the reduction in tax rate.

The Company recognizes the financial statement effects of a tax position when it becomes more likely than not, based upon the technical merits, that the position will be sustained upon examination. The Company has no unrecognized tax benefits as of April 30, 2019 and 2018, respectively. The Company does not expect any material changes in the next 12 months in unrecognized tax benefits. The Company has not recognized interest and penalties related to uncertain tax positions.

Note 10. Defined Contribution Plans

Participation in a personal pension plan is available to all U.K. based employees of the Company upon commencement of their employment. Employer contributions are made in accordance with the terms and conditions of the employment contract. Employees may contribute in accordance with the prevailing statutory limitations. Employees of the U.S. parent company are eligible to participate in the Company's 401(k) Plan. The Company matches up to 4% of employee contributions to the Plan. Total employer contributions to both plans for the years ended April 30, 2019, 2018 and 2017 were $237,000, $219,000 and $90,000 respectively.

Note 11. Other Income

As of April 30, 2019 and 2018, the Company had research and development tax credits receivable totaling $11.3 million and $6.8 million, respectively. This tax credit is related to a tax scheme for small and medium enterprises in the United Kingdom as well as an R&D expenditure credit system that allows the Company to file a claim for cash credit in proportion to the Company's R&D expenditure for the year. This amount is included in other income, as it is a refundable credit that does not depend on the Company's ongoing tax status or position. The Company recognized $7.6 million, $4.4 million and $2.3 million related to these programs in the years ended April 30, 2019, 2018 and 2017, respectively. In the year ended April 30, 2019, other income also included $52,000 of realized gains from the sale of available for sale securities.

Note 12. Unaudited Quarterly Financial Information (in thousands):

Fiscal year 2019	Quarter ended July 31, 2018	Quarter ended October 31, 2018	Quarter ended January 31, 2019	Quarter ended April 30, 2019
Revenue	$ 3,718	$ 5,592	$ 3,890	$ 2,926
Operating expenses	10,727	10,485	10,550	14,186
Net loss	(5,030)	(3,304)	(3,956)	(8,526)
Net loss per share	$ (0.47)	$ (0.22)	$ (0.23)	$ (0.49)

Fiscal year 2018	Quarter ended July 31, 2017	Quarter ended October 31, 2017	Quarter ended January 31, 2018	Quarter ended April 30, 2018
Revenue	$ 96	$ 1,127	$ 2,331	$ 4,840
Operating expenses	5,549	7,064	6,677	7,809
Net loss	(4,928)	(4,986)	(5,234)	(657)
Net loss per share	$ (0.51)	$ (0.50)	$ (0.49)	$ (0.06)

AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT

This Amended and Restated Executive Employment Agreement ("**Agreement**") is made and entered into on this 26th day of June, 2019 by and between KalVista Pharmaceuticals, Inc., a Delaware corporation (the "**Company**"), and T. Andrew Crockett (hereinafter, the "**Executive**").

RECITALS

WHEREAS, the Executive is currently employed by the Company;

WHEREAS, the terms of Executive's employment with the Company are set forth in an Executive Employment Agreement by and between the Company and the Executive previously entered into on the 14th day of March, 2017 (the "**First Agreement**);

WHEREAS, the Company and the Executive now desire to amend and restate the First Agreement;

WHEREAS, the Company and Employee intend that this Agreement shall supersede and replace the First Agreement; and

WHEREAS, the Company desires to continue to employ the Executive and the Executive desires to continue to be employed by the Company on the terms herein described.

NOW, THEREFORE, in consideration of the premises and mutual covenants set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are mutually acknowledged, the Company and the Executive hereby agree as follows:

1. Employment. The Company hereby agrees to employ the Executive and the Executive hereby agrees to serve the Company during the Term of Employment on the terms and conditions set forth herein.

2. Position and Duties of Executive. During the Term of Employment, the Executive shall be employed and serve as the CEO of the Company, and shall have such duties typically associated with such titles, including, without limitation supervising operations and management of the Company and its subsidiaries. The Executive shall faithfully and diligently perform all services as may be assigned to him by the Board, and shall exercise such power and authority as may from time to time be delegated to him by the Board. The Executive shall devote his full business time, attention and efforts to the performance of his duties under this Agreement, render such services to the best of his ability, and use his reasonable best efforts to promote the interests of the Company. The Executive shall not engage in any other business or occupation during the Term of Employment, including, without limitation, any activity that (i) conflicts with the interests of the Company or its subsidiaries, (ii) interferes with the proper and efficient performance of his duties for the Company, or (iii) interferes with the exercise of his judgment in the Company's best interests. Notwithstanding the foregoing or any other provision of this Agreement, it shall not be a breach or violation of this Agreement for the Executive to (w) serve on up to two outside corporate or scientific advisory boards with prior notice to the Company, (x) serve on civic or charitable boards or committees, (y) deliver lectures or fulfill speaking engagements, or (z) manage personal investments, so long as any such activities do not interfere with or detract from the performance of the Executive's responsibilities to the Company in accordance with this Agreement.

3. Compensation and Benefits.

(a) ***Base Salary***. The Executive shall receive a Base Salary at the annual rate of $556,120.00, effective as of May 1, 2019, during the Term of Employment, with such Base Salary payable in installments consistent with the Company's normal payroll schedule, subject to applicable withholding and other taxes. The Base Salary shall be reviewed, at least annually, for merit increases and may, by action and in the

discretion of the Board (or its Compensation Committee), be increased at any time or from time to time, but may not be decreased from the then current Base Salary.

(b) ***Bonuses***. During the Term of Employment, the Executive shall participate in the Company's annual incentive compensation plan, program and/or arrangements applicable to senior-level executives, as established and modified from time to time by the Compensation Committee of the Board in its sole discretion. During the Term of Employment, the Executive shall have a target bonus opportunity under such plan or program equal to 55% of his current Base Salary (the "**Target Bonus**"), based on satisfaction of performance criteria to be established by the Compensation Committee of the Board within the first three months of each fiscal year that begins during the Term of Employment. Payment of annual incentive compensation awards shall be made in the same manner and at the same time that other senior-level executives receive their annual incentive compensation awards, but in no event later than 2 ½ months following the last day of the applicable Company fiscal year, and, except as otherwise provided herein, will be subject to the Executive's continued employment through the last day of the applicable Company fiscal year.

(c) ***Compensation/Benefit Programs***. During the Term of Employment, the Executive shall be entitled to participate in all medical, dental, hospitalization, accidental death and dismemberment, disability, travel and life insurance plans, and any and all other plans as are presently and hereinafter offered by the Company to its executive personnel, including savings, pension, profit-sharing and deferred compensation plans, subject to the general eligibility and participation provisions set forth in such plans.

(d) ***Equity Awards***. During the Term of Employment, the Executive shall be eligible to be granted Equity Awards. The number and type of such Equity Awards, and the terms and conditions thereof, shall be determined by the Board or the Compensation Committee of the Board, in its discretion

(e) ***Vacation***. The Executive shall be entitled to 25 days of paid vacation each calendar year during the Term of Employment, subject to the terms of the Company's then effective vacation or paid time off policy.

(f) ***Reimbursement of Reasonable Business Expenses***. Subject to submission of proper substantiation by the Executive, and subject to such rules and guidelines as the Company may from time to time adopt with respect to the reimbursement of reasonable business expenses of executive personnel, the Company shall reimburse the Executive for all reasonable expenses actually paid or incurred by the Executive during the Term of Employment in the course of and pursuant to the business of the Company. The Executive shall account to the Company in writing for all expenses for which reimbursement is sought and shall supply to the Company copies of all relevant invoices, receipts or other evidence reasonably requested by the Company.

4. Termination.

(a) ***General***. The Term of Employment shall terminate upon the earliest to occur of (i) the Executive's death, (ii) a termination by the Company by reason of the Executive's Disability, (iii) a termination by the Company with or without Cause, or (iv) a termination by Executive with or without Good Reason. Upon any termination of Executive's employment for any reason, except as may otherwise be requested by the Company in writing and agreed upon in writing by Executive, the Executive shall resign from any and all directorships, committee memberships or any other positions Executive holds with the Company or any of its Related Entities.

(b) ***Termination by the Company for Cause***. The Company shall at all times have the right, upon written notice to the Executive, to terminate the Term of Employment for Cause. In no event shall a termination of the Executive's employment for Cause occur unless the Company gives written notice to the Executive in accordance with this Agreement stating with reasonable specificity the events or actions that constitute Cause. In the event that the Term of Employment is terminated by the Company for Cause, Executive shall be entitled only to the Accrued Obligations.

(c) ***Disability***. The Company shall have the option, in accordance with applicable law, to terminate the Term of Employment upon written notice to the Executive at any time during which the Executive is suffering from a Disability. In the event that the Term of Employment is terminated due to the Executive's Disability, the Executive shall be entitled to (i) the Accrued Obligations and (ii) any insurance benefits to which he and his beneficiaries are entitled as a result of his Disability.

(d) ***Death***. In the event that the Term of Employment is terminated due to the Executive's death, the Executive's estate shall be entitled to (i) the Accrued Obligations and (ii) any insurance benefits to which he and his beneficiaries are entitled as a result of his death.

(e) ***Termination Without Cause outside of a Change in Control of the Company or Resignation With Good Reason outside of a Change in Control of the Company***. The Company may terminate the Term of Employment without Cause, and the Executive may terminate the Term of Employment for Good Reason, at any time upon written notice. If the Term of Employment is terminated by the Company without Cause (other than due to the Executive's death or Disability) or by the Executive for Good Reason, in either case prior to the date of a Change in Control or more than two years after a Change in Control, the Executive shall be entitled to the following:

(i) The Accrued Obligations;

(ii) A lump sum payment equal to 15 months of Executive's then-current Base Salary;

(iii) Provided that the Executive timely elects continued coverage under COBRA, the Company will reimburse the Executive for the monthly COBRA cost of continued health and dental coverage of the Executive and his qualified beneficiaries paid by the Executive under the health and dental plans of the Company, less the amount that the Executive would be required to contribute for health and dental coverage if the Executive were an active employee of the Company, for 15 months (or, if less, for the duration that such COBRA coverage is available to Executive). Notwithstanding the above, if the Company determines in its sole discretion that it cannot provide the COBRA benefits described herein without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), the Company shall in lieu thereof provide Executive with a taxable lump sum payment in an amount equal to the then-unreimbursed monthly COBRA premiums.

(f) ***Termination by Executive Without Good Reason***. The Executive may terminate his employment without Good Reason by providing the Company 30 days' written notice of such termination. In the event of a termination of employment by the Executive under this Section 4(f), the Executive shall be entitled only to the Accrued Obligations. In the event of termination of the Executive's employment under this Section 4(f), the Company may, in its sole and absolute discretion, by written notice, accelerate such date of termination and still have it treated as a termination without Good Reason.

(g) ***Termination Without Cause in connection with a Change in Control of the Company or Resignation With Good Reason in connection with a Change in Control of the Company***. If the Executive's employment is terminated by the Company (or any entity to which the obligations and benefits under this Agreement have been assigned pursuant to Section 9(b)) without Cause or by the Executive for Good Reason, in either case during the two year period immediately following a Change in Control, then the Executive shall be entitled to the following:

(i) The Accrued Obligations;

(ii) A lump sum payment equal to 21 months of Executive's then-current Base Salary;

(iii) A lump sum payment equal to the Executive's full Target Bonus for the fiscal year in which the Termination Date occurs;

(iv) Provided that the Executive timely elects continued coverage under COBRA, the Company will reimburse the Executive for the monthly COBRA cost of continued health and dental coverage of the Executive and his qualified beneficiaries paid by the Executive under the health and dental plans of the Company, less the amount that the Executive would be required to contribute for health and dental coverage if the Executive were an active employee of the Company, for 21 months (or, if less, for the duration that such COBRA coverage is available to Executive). Notwithstanding the above, if the Company determines in its sole discretion that it cannot provide the COBRA benefits described herein without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), the Company shall in lieu thereof provide Executive with a taxable lump sum payment in an amount equal to the then-unreimbursed monthly COBRA premiums. Notwithstanding the foregoing, the Company shall provide Executive with a taxable lump sum payment in an amount equal to the then-unreimbursed monthly COBRA premiums for months 19-21.

(v) All then-unvested Equity Awards will vest in full.

(h) ***Release***. All rights, payments and benefits due to the Executive under this Section 4 (other than the Accrued Obligations) shall be conditioned on the Executive's execution of a general release of claims against the Company and its affiliates substantially in the form attached hereto as Exhibit B (the "**Release**") and on that Release becoming irrevocable within 60 days following the Termination Date. The severance described in this Section 4 (other than Accrued Obligations) shall be paid no later than the first business day following the sixtieth (60th) day following the termination of employment of Executive and in compliance with the timeframe required under Section 409A as set forth herein, and the first payment will include the payments due and owing prior to that payment date but for the application of this sentence. If the Straddle Period (as defined below) spans two (2) calendar years, then the cash payments under this Section 4 (other than Accrued Obligations) shall first be made on the first business day in the second calendar year that occurs after the expiration of the sixty (60)-day period in which the Release must be delivered and effective, as described in this Section 4. The "**Straddle Period**" shall mean the sixty (60)-day period following a termination of employment in which the Release is to be executed and become irrevocable pursuant to this Section 4.

(i) ***Section 280G Certain Reductions of Payments by the Company***.

(1) Anything in this Agreement to the contrary notwithstanding, in the event it shall be determined that any payment or distribution by the Company to or for the benefit of the Executive, whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise (a "**Payment**"), would be nondeductible by the Company for Federal income tax purposes because of Section 280G of the Code, then the aggregate present value of amounts payable or distributable to or for the benefit of the Executive pursuant to this Agreement (such payments or distributions pursuant to this Agreement are hereinafter referred to as "**Agreement Payments**") shall be reduced to the Reduced Amount. The "**Reduced Amount**" shall be an amount expressed in present value that avoids any Payment being nondeductible by the Company because of Section 280G of the Code. To the extent necessary to avoid imposition of the Excise Tax, the amounts payable or benefits to be provided to the Executive shall be reduced such that the reduction of compensation to be provided to the Executive is minimized. In applying this principle, the reduction shall be made in a manner consistent with the requirements of Section 409A of the Code, and where two economically equivalent amounts are subject to reduction but payable at different times, such amounts shall be reduced on a pro rata basis (but not below zero). Anything to the contrary notwithstanding, if the Reduced Amount is zero and it is determined further that any Payment which is not an Agreement Payment would nevertheless be nondeductible by the Company for Federal income tax purposes because of Section 280G of the Code, then the aggregate present value of Payments which are not Agreement Payments shall also be reduced (but not below zero) to an amount expressed in present value which maximizes the aggregate present value of Payments without causing any Payment to be nondeductible by the Company because of Section 280G of the Code. If a

reduction of any Payment is required pursuant to this Section 4(i), such reduction shall occur to the amounts in the order that results in the greatest economic present value of all payments and benefits actually made or provided to the Executive. For purposes of this Section 4(i), present value shall be determined in accordance with Section 280G(d)(4) of the Code.

(2) All determinations required to be made under this Section 4(i) shall be made by a tax or compensation consulting firm of national reputation selected by the Company (the "**Consulting Firm**"), which shall provide detailed supporting calculations both to the Company and the Executive within 20 business days of the date of termination or such earlier time as is requested by the Company and an opinion to the Executive that he has substantial authority not to report any excise tax on his Federal income tax return with respect to any Payments. Any such determination by the Consulting Firm shall be binding upon the Company and the Executive. Within five business days thereafter, the Company shall pay to or distribute to or for the benefit of the Executive such amounts as are then due to the Executive under this Agreement. All fees and expenses of the Consulting Firm incurred in connection with the determinations contemplated by this Section 4(i) shall be borne by the Company.

(3) As a result of the uncertainty in the application of Section 280G of the Code at the time of the initial determination by the Consulting Firm hereunder, it is possible that Payments will have been made by the Company which should not have been made ("**Overpayment**") or that additional Payments which will not have been made by the Company could have been made ("**Underpayment**"), in each case, consistent with the calculations required to be made hereunder. In the event that the Consulting Firm, based upon the assertion of a deficiency by the Internal Revenue Service against the Executive which the Consulting Firm believes has a high probability of success, determines that an Overpayment has been made, any such Overpayment paid or distributed by the Company to or for the benefit of the Executive shall be promptly repaid to the Company by the Executive. In the event that the Consulting Firm, based upon controlling precedent or other substantial authority, determines that an Underpayment has occurred, any such Underpayment shall be promptly paid by the Company to or for the benefit of the Executive together with interest at the applicable federal rate provided for in Section 7872(f)(2) of the Code.

(j) ***Cooperation***. Following the Term of Employment, the Executive shall give his assistance and cooperation willingly, upon reasonable advance notice with due consideration for his other business or personal commitments, in any matter relating to his position with the Company, or his expertise or experience as the Company may reasonably request, including his attendance and truthful testimony where deemed appropriate by the Company, with respect to any investigation or the Company's defense or prosecution of any existing or future claims or litigations or other proceedings relating to matters in which he was involved or potentially had knowledge by virtue of his employment with the Company. In no event shall his cooperation materially interfere with his services for a subsequent employer or other similar service recipient. To the extent permitted by law, the Company agrees that (i) it shall promptly reimburse the Executive for his reasonable and documented expenses in connection with his rendering assistance and/or cooperation under this Section 4(j) upon his presentation of documentation for such expenses and (ii) the Executive shall be reasonably compensated for any continued material services as required under this Section 4(j).

(k) ***Return of Company Property***. Following the Termination Date, the Executive or his personal representative shall return all Company property in his possession, including but not limited to all computer equipment (hardware and software), telephones, facsimile machines, cell phones and other communication devices, credit cards, office keys, security access cards, badges, identification cards and all copies (including drafts) of any documentation or information (however stored) relating to the business of the Company, its customers and clients or its prospective customers and clients.

(l) ***Compliance with Section 409A***.

(i) ***General***. It is the intention of both the Company and the Executive that the benefits and rights to which the Executive could be entitled pursuant to this Agreement comply with Section

409A of the Code and the Treasury Regulations and other guidance promulgated or issued thereunder ("**Section 409A**"), to the extent that the requirements of Section 409A are applicable thereto, and the provisions of this Agreement shall be construed in a manner consistent with that intention.

(ii) ***Distributions on Account of Separation from Service***. If and to the extent required to comply with Section 409A, no payment or benefit required to be paid under this Agreement on account of termination of the Executive's employment shall be made unless and until the Executive incurs a "separation from service" within the meaning of Section 409A.

(iii) ***Six Month Delay for Specified Employees***. If the Executive is a "specified employee" (within the meaning of Section 409A(a)(2)(B)(i) of the Code), then no payment or benefit that is payable on account of the Executive's "separation from service", as that term is defined for purposes of Section 409A, shall be made before the date that is six months after the Executive's "separation from service" (or, if earlier, the date of the Executive's death) if and to the extent that such payment or benefit constitutes deferred compensation (or may be nonqualified deferred compensation) under Section 409A and such deferral is required to comply with the requirements of Section 409A. Any payment or benefit delayed by reason of the prior sentence shall be paid out or provided in a single lump sum at the end of such required delay period in order to catch up to the original payment schedule.

(iv) ***Treatment of Each Installment as a Separate Payment***. For purposes of applying the provisions of Section 409A to this Agreement, each separately identified amount to which the Executive is entitled under this Agreement shall be treated as a separate payment. In addition, any series of installment payments under this Agreement shall be treated as a right to a series of separate payments.

(v) ***Taxable Reimbursements and In-Kind Benefits***.

(A) Any reimbursements by the Company to the Executive of any eligible expenses under this Agreement that are not excludable from the Executive's income for Federal income tax purposes (the "**Taxable Reimbursements**") shall be made by no later than the last day of the taxable year of the Executive following the year in which the expense was incurred.

(B) The amount of any Taxable Reimbursements, and the value of any in-kind benefits to be provided to the Executive, during any taxable year of the Executive shall not affect the expenses eligible for reimbursement, or in-kind benefits to be provided, in any other taxable year of the Executive.

(C) The right to Taxable Reimbursement, or in-kind benefits, shall not be subject to liquidation or exchange for another benefit.

(vi) ***Section 409A Compliance***. Notwithstanding the foregoing, the Company does not make any representation to the Executive that the payments or benefits provided under this Agreement are exempt from, or satisfy, the requirements of Section 409A, and the Company shall have no liability or other obligation to indemnify or hold harmless the Executive or any beneficiary of the Executive for any tax, additional tax, interest or penalties that the Executive or any beneficiary of the Executive may incur in the event that any provision of this Agreement, or any amendment or modification thereof, or any other action taken with respect thereto, is deemed to violate any of the requirements of Section 409A.

5. Restrictive Covenants.

(a) ***Confidential Information***. The Executive shall execute and agree to be bound by the terms of the Company's Employee Invention Assignment, Confidentiality and Non-Competition Agreement (the "***EIIA***") as provided therein.

(b) ***Insider Trading Policies***. Executive agrees that he shall comply with and be bound by the Company's insider trading policies with respect to the securities of the Company as now in effect or hereafter adopted or amended.

(c) ***Clawback Provisions***. All incentive and equity awards and payments shall be subject to the clawback policy of the Company, as now in effect or hereafter adopted or amended, and all applicable laws and rules and regulations of the stock exchanges and public market on which the securities of the Company are traded.

(d) ***Injunction***. It is recognized and hereby acknowledged by the parties hereto that a breach by the Executive of any of the covenants contained in this Section 5 or the EIIA may cause irreparable harm and damage to the Company, and its Related Entities, the monetary amount of which may be virtually impossible to ascertain. As a result, the Executive recognizes and hereby acknowledges that the Company and its Related Entities shall be entitled to seek an injunction from any court of competent jurisdiction enjoining and restraining any violation of any or all of the covenants contained in this Section 5 or the EIIA by the Executive or any of his affiliates, associates, partners or agents, either directly or indirectly, and that such right to injunction shall be cumulative and in addition to whatever other remedies the Company may possess.

6. Representations and Warranties of Executive. The Executive represents and warrants to the Company that:

(a) The Executive's employment will not conflict with or result in his breach of any agreement to which he is a party or otherwise may be bound;

(b) The Executive has not violated, and in connection with his employment with the Company will not violate, any non-solicitation, non-competition or other similar covenant or agreement of a prior employer by which he is or may be bound; and

(c) In connection with Executive's employment with the Company, he will not use any confidential or proprietary information that he may have obtained in connection with employment with any prior employer; and

7. Indemnification. Subject to limitations imposed by law, the Company shall indemnify and hold harmless the Executive to the fullest extent permitted by law from and against any and all claims, damages, expenses (including attorneys' fees), judgments, penalties, fines, settlements, and all other liabilities incurred or paid by him in connection with the investigation, defense, prosecution, settlement or appeal of any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative and to which the Executive was or is a party or is threatened to be made a party by reason of the fact that the Executive is or was an officer, employee or agent of the Company, or by reason of anything done or not done by the Executive in any such capacity or capacities, provided that the Executive acted in good faith, in a manner that was not grossly negligent or constituted willful misconduct and in a manner he reasonably believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful.

8. Definitions. When used in this Agreement, the following terms shall have the following meanings:

(a) ***Accrued Obligations***" means:

(i) all accrued but unpaid Base Salary through the end of the Term of Employment;

(ii) any unpaid or unreimbursed expenses incurred in accordance with Company policy to the extent incurred during the Term of Employment;

(iii) any accrued but unpaid benefits provided under the Company's employee benefit plans, subject to and in accordance with the terms of those plans;

(iv) any unpaid Bonus with respect to any completed fiscal year that has ended on or prior to the end of the Term of Employment; and

(v) any accrued but unused vacation pay.

(b) "***Base Salary***" means the salary provided for in Section 3(a) hereof or any increased salary granted to Executive pursuant to Section 3(a) hereof.

(c) "***Beneficial Owner***" and "***Beneficial Ownership***" shall have the meaning ascribed to such terms in Rule 13d-3 promulgated under the Securities Exchange Act of 1934, as amended.

(d) "***Board***" means the Board of Directors of the Company.

(e) "***Bonus***" means any bonus payable to the Executive pursuant to Section 3(b) hereof.

(f) "***Cause***" means any of the following:

(i) Executive's conviction of or plea of nolo contendere to a felony or to any crime involving moral turpitude;

(ii) willful misconduct or gross negligence by the Executive resulting, in either case, in material economic or reputational harm to the Company or any of Related Entities;

(iii) a willful failure by the Executive to carry out the reasonable and lawful directions of the Board and failure by the Executive to remedy the failure within thirty (30) days after receipt of written notice of same, by the Board;

(iv) fraud, embezzlement, theft or dishonesty of a material nature by the Executive against the Company or any Related Entity, or a willful material violation by the Executive of a policy or procedure of the Company or any Related Entity, resulting, in any case, in material, reputational or economic harm to the Company or any Related Entity; or

(v) a willful material breach by the Executive of this Agreement and failure by the Executive to remedy the material breach within 30 days after receipt of written notice of same, by the Board.

(g) "***CEO***" means the Chief Executive Officer of the Company.

(h) "***Change in Control***" means the occurrence of any of the following events: (i) any Person becomes the Beneficial Owner, directly or indirectly, of securities of the Company representing more than fifty percent (50%) of the total voting power represented by the Company's then-outstanding voting securities; provided, however, that for purposes of this subclause (i) the acquisition of additional securities by any one Person who is considered to own more than fifty percent (50%) of the total voting power of the securities of the Company will not be considered a Change in Control; (ii) the consummation of the sale or disposition by the Company of all or substantially all of the Company's assets; (iii) the consummation of a merger or consolidation of the Company with any other corporation, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or

its parent) at least fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity or its parent outstanding immediately after such merger or consolidation; or (iv) a change in the effective control of the Company that occurs on the date that a majority of members of the Board is replaced during any twelve (12) month period by members of the Board whose appointment or election is not endorsed by a majority of the members of the Board prior to the date of the appointment or election. For purpose of this subclause (iv), if any Person is considered to be in effective control of the Company, the acquisition of additional control of the Company by the same Person will not be considered a Change in Control. For purposes of this definition, Persons will be considered to be acting as a group if they are owners of a corporation that enters into a merger, consolidation, purchase or acquisition of stock, or similar business transaction with the Company.

(i) "***COBRA***" means the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended from time to time.

(j) "***Code***" means the Internal Revenue Code of 1986, as amended.

(k) "***Commencement Date***" means the date of this Agreement.

(l) "***Disability***" means the Executive's inability, or failure, to perform the essential functions of his position, with or without reasonable accommodation, for any period of six months or more in any 12 month period, by reason of any medically determinable physical or mental impairment.

(m) "***Equity Awards***" means any stock options, restricted stock, restricted stock units, stock appreciation rights, phantom stock or other equity based awards granted by the Company to the Executive.

(n) "***Excise Tax***" means any excise tax imposed by Section 4999 of the Code, together with any interest and penalties imposed with respect thereto, or any interest or penalties are incurred by the Executive with respect to any such excise tax.

(o) "***Good Reason***" means the occurrence of any of the following events or conditions, without the Executive's express written consent:

(i) a material diminution in the Executive's authority, duties, or responsibilities, provided, however, that the mere acquisition or merger of the Company by itself shall not constitute a material diminution in the Executive's authority, duties, or responsibilities;

(ii) a material reduction by the Company in the Executive's annual Base Salary (which for purposes hereof is deemed to constitute a reduction of greater than 10%, unless such reduction applies as part of a salary reduction program and such program includes similar reductions to all of the Executive's direct reports); or

(iii) the relocation of the Executive's principal place of employment to a location more than 50 miles from the Executive's principal place of employment immediately prior to the Executive's termination.

With respect to each of subsection (i), (ii) and (iii) above, the Executive must provide notice to the Company of the condition giving rise to "Good Reason" within 30 days of the initial existence of such condition, and the Company will have 30 days following such notice to remedy such condition. The Executive must resign the Executive's employment no later than 30 days following the Company's failure to cure the Good Reason or written notice to the Executive that it will decline to do so.

(p) "***Group***" shall have the meaning ascribed to such term in Section 13(d) of the Securities Exchange Act of 1934.

(q) "***Person***" shall have the meaning ascribed to such term in Section 3(a)(9) of the Securities Exchange Act of 1934 and used in Sections 13(d) and 14(d) thereof.

(r) "***Related Entity***" means any Person controlling, controlled by or under common control with the Company or any of its subsidiaries. For this purpose, the terms "controlling," "controlled by" and "under common control with" mean the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of a Person, whether through the ownership of voting securities, as trustee or executor, by contract or otherwise, including (without limitation) the ownership, directly or indirectly, of securities having the power to elect a majority of the board of directors or similar body governing the affairs of such Person.

(s) "***Target Bonus***" has the meaning described in Section 3(b).

(t) "***Term of Employment***" means the period during which the Executive shall be employed by the Company pursuant to the terms of this Agreement, which period shall begin on the Commencement Date and continue until terminated in accordance with Section 4 hereof.

(u) "***Termination Date***" means the date on which the Term of Employment ends.

9. Miscellaneous Provisions.

(a) ***Taxes***. All payments or transfers of property made by the Company to the Executive or his estate or beneficiaries shall be subject to the withholding of such amounts relating to taxes as the Company may reasonably determine it should withhold pursuant to any applicable law or regulation.

(b) ***Assignment***. The Company shall have the right to assign this Agreement and its rights and obligations hereunder in whole, but not in part, to any corporation or other entity with or into which the Company may hereafter merge or consolidate or to which the Company may transfer all or substantially all of its assets, if in any such case said corporation or other entity shall by operation of law or expressly in writing assume all obligations of the Company hereunder as fully as if it had been originally made a party hereto, but may not otherwise assign this Agreement or its rights and obligations hereunder. The Executive may not assign or transfer this Agreement or any rights or obligations hereunder.

(c) ***Governing Law***. Except as expressly set forth herein, this letter agreement and the rights and obligations of the parties hereto shall be construed in accordance with the laws of the Commonwealth of Massachusetts, without giving effect to the principles of conflict of laws.

(d) ***Arbitration and Class Action Waiver***. Executive and the Company agree to submit to mandatory binding arbitration any and all claims arising out of or related to Executive's employment with the Company and the termination thereof, including, but not limited to, claims for unpaid wages, wrongful termination, torts, stock or stock options or other ownership interest in the Company, and/or discrimination (including harassment), except as set forth below, based upon any federal, state or local ordinance, statute, regulation or constitutional provision except that each party may, at its, his or her option, seek injunctive relief in court related to the improper use, disclosure or misappropriation of a party's private, proprietary, confidential or trade secret information (collectively, "**Arbitrable Claims**"). Further, to the fullest extent permitted by law, Executive and the Company agree that no class or collective actions can be asserted in arbitration or otherwise. All claims, whether in arbitration or otherwise, must be brought solely in Executive's or the Company's individual capacity, and not as a plaintiff or class member in any purported class or collective proceeding.

THE PARTIES HEREBY WAIVE ANY RIGHTS THEY MAY HAVE TO TRIAL BY JURY IN REGARD TO ARBITRABLE CLAIMS. THE PARTIES FURTHER WAIVE ANY RIGHTS THEY MAY HAVE TO PURSUE OR PARTICIPATE IN A CLASS OR COLLECTIVE ACTION PERTAINING TO ANY ARBITRABLE CLAIMS BETWEEN YOU AND THE COMPANY.

Notwithstanding anything to the contrary herein, nothing in this Arbitration and Class Action Waiver section restricts Executive's right to pursue claims in court (a) on a representative action basis under applicable law or (b) for any alleged sexual harassment or any alleged unlawful discriminatory practices related to sexual harassment.

This Agreement does not restrict Executive's right to file administrative claims Executive may bring before any government agency where, as a matter of law, the parties may not restrict the employee's ability to file such claims (including, but not limited to, the National Labor Relations Board, the Equal Employment Opportunity Commission and the Department of Labor). However, the parties agree that, to the fullest extent permitted by law, arbitration shall be the exclusive remedy for the subject matter of such administrative claims. The arbitration shall be conducted in Boston, Massachusetts through JAMS before a single neutral arbitrator, in accordance with the JAMS employment arbitration rules then in effect. The JAMS rules may be found and reviewed at http://www.jamsadr.com/rules-employment-arbitration. If Executive is unable to access these rules, please let the Company know and Executive will be provided with a hardcopy. The arbitrator shall issue a written decision that contains the essential findings and conclusions on which the decision is based. Executive and the Company agree that this Arbitration and Class Action Waiver Provision shall be governed by the Federal Arbitration Act. Should any portion of this provision be found unenforceable, it shall be severed and the remaining provisions shall remain in full force and effect.

(e) ***Entire Agreement***. This Agreement, together with the exhibit attached hereto, constitutes the entire agreement between the patties hereto with respect to the subject matter hereof and, upon its effectiveness, shall supersede all prior agreements, understandings and arrangements, both oral and written, between the Executive and the Company (or any of its Related Entities) with respect to such subject matter. This Agreement may not be modified in any way unless by a written instrument signed by both the Company and the Executive.

(f) ***Notices***. All notices required or permitted to be given hereunder shall be in writing and shall be personally delivered by courier, sent by registered or certified mail, return receipt requested or sent by confirmed facsimile transmission addressed as set forth herein. Notices personally delivered, sent by facsimile or sent by overnight courier shall be deemed given on the date of delivery and notices mailed in accordance with the foregoing shall be deemed given upon receipt by the addressee, as evidenced by the return receipt thereof. Notice shall be sent (i) if to the Company, addressed to the Company's headquarters, Attention: the Company's Board, and (ii) if to the Executive, to his address as reflected on the payroll records of the Company, or to such other address as either party shall request by notice to the other in accordance with this provision.

(g) ***Benefits; Binding Effect.*** This Agreement shall be for the benefit of and binding upon the parties hereto and their respective heirs, personal representatives, legal representatives, successors and, where permitted and applicable, assigns, including, without limitation, any successor to the Company, whether by merger, consolidation, sale of stock, sale of assets or otherwise.

(h) ***Right to Consult with Counsel***. The Executive acknowledges having read and considered all of the provisions of this Agreement carefully, and having had the opportunity to consult with counsel of his own choosing, and, given this, the Executive agrees that the obligations created hereby are not unreasonable.

(i) ***Severability***. The invalidity of any one or more of the words, phrases, sentences, clauses, provisions, sections or articles contained in this Agreement shall not affect the enforceability of the remaining portions of this Agreement or any part thereof, all of which are inserted conditionally on their being valid in law, and, in the event that any one or more of the words, phrases, sentences, clauses, provisions, sections or articles contained in this Agreement shall be declared invalid, this Agreement shall be construed as if such invalid word or words, phrase or phrases, sentence or sentences, clause or clauses, provisions or provisions, section or sections or article or articles had not been inserted. If such invalidity is caused by length of time or

size of area, or both, the otherwise invalid provision will be considered to be reduced to a period or area which would cure such invalidity.

(j) ***Waivers***. The waiver by either party hereto of a breach or violation of any term or provision of this Agreement shall not operate nor be construed as a waiver of any subsequent breach or violation.

(k) ***Damages; Attorneys' Fees***. Nothing contained herein shall be construed to prevent the Company or the Executive from seeking and recovering from the other damages sustained by either or both of them as a result of its or his breach of any term or provision of this Agreement. Each party shall bear its own costs and attorneys' fees.

(l) ***No Set-off or Mitigation***. The Company's obligation to make the payments provided for in this Agreement and otherwise to perform its obligations hereunder shall not be affected by any set off, counterclaim, recoupment, defense or other claim, right or action which the Company may have against the Executive or others. In the event of any termination of the Executive's employment under this Agreement, he shall be under no obligation to seek other employment or otherwise in any way to mitigate the amount of any payment provided for hereunder.

(m) ***Section Headings***. The article, section and paragraph headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement.

(n) ***No Third Party Beneficiary***. The Related Entities are intended third party beneficiaries of this Agreement. Otherwise, nothing expressed or implied in this Agreement is intended, or shall be construed, to confer upon or give any person other than the Company, the parties hereto and their respective heirs, personal representatives, legal representatives, successors and permitted assigns, any rights or remedies under or by reason of this Agreement.

(o) ***Counterparts***. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together shall constitute one and the same instrument and agreement.

[Signature Page to Amended and Restated Executive Employment Agreement Follows]

IN WITNESS WHEREOF, the undersigned have executed this Agreement on the date first above written.

Company	**Executive**
KalVista Pharmaceuticals, Inc.	/s/ T. Andrew Crockett
/s/ Albert Cha	T. Andrew Crockett
Print Name: Albert Cha	
Title: Director	

[Signature Page to Amended and Restated Executive Employment Agreement]

Exhibit B

General Release of Claims

1. T. Andrew Crockett ("**Executive**"), for himself and his family, heirs, executors, administrators, legal representatives and their respective successors and assigns, in exchange for the consideration received pursuant to Section [4(e)] [4(g)] of the Amended and Restated Executive Employment Agreement (the "**Severance Benefits**") to which this release is attached as Exhibit B (the "**Employment Agreement**"), does hereby release and forever discharge KalVista Pharmaceuticals, Inc. (the "**Company**"), its subsidiaries, affiliated companies, successors and assigns, and its current or former directors, officers, employees, shareholders or agents in such capacities (collectively with the Company, the "**Released Partie**s") from any and all actions, causes of action, suits, controversies, claims and demands whatsoever, for or by reason of any matter, cause or thing whatsoever, whether known or unknown including, but not limited to, all claims under any applicable laws arising under or in connection with Executive's employment or termination thereof, whether for tort, breach of express or implied employment contract, wrongful discharge, intentional infliction of emotional distress, or defamation or injuries incurred on the job or incurred as a result of loss of employment. Without limiting the generality of the release provided above, Executive expressly waives any and all claims under Age Discrimination in Employment Act ("**ADEA**") that he may have as of the date hereof. Executive further understands that, by signing this General Release of Claims, he is in fact waiving, releasing and forever giving up any claim under the ADEA as well as all other laws within the scope of this paragraph 1 that may have existed on or prior to the date hereof. Notwithstanding anything in this paragraph 1 to the contrary, this General Release of Claims shall not apply to (i) any rights to receive any payments or benefits to which the Executive is entitled under COBRA, (ii) any rights or claims that may arise as a result of events occurring after the date this General Release of Claims is executed, (iii) any indemnification and advancement rights Executive may have as a former employee, officer or director of the Company or its subsidiaries or affiliated companies (including any rights under Section 7 of the Employment Agreement), (iv) any claims for benefits under any directors' and officers' liability policy maintained by the Company or its subsidiaries or affiliated companies in accordance with the terms of such policy, (v) rights to vested benefits under the Company's 401(k) plan, and (vi) any rights as a holder of equity securities of the Company.

2. Executive understands that nothing in this Release shall in any way limit or prohibit Executive from engaging in any Protected Activity. For purposes of this Release, "**Protected Activity**" shall mean filing a charge, complaint, or report with, or otherwise communicating, cooperating, or participating in any investigation or proceeding that may be conducted by, any federal, state or local government agency or commission, including the Securities and Exchange Commission, the Equal Employment Opportunity Commission, the Occupational Safety and Health Administration, and the National Labor Relations Board ("**Government Agencies**"). Executive understands that in connection with such Protected Activity, Executive is permitted to disclose documents or other information as permitted by law, and without giving notice to, or receiving authorization from, the Company. Notwithstanding the foregoing, Executive agrees to take all reasonable precautions to prevent any unauthorized use or disclosure of any information that may constitute Company confidential information to any parties other than the Government Agencies. Executive further understands that "Protected Activity" does not include the disclosure of any Company attorney-client privileged communications. In addition, pursuant to the Defend Trade Secrets Act of 2016, Executive is notified that an individual will not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret that (i) is made in confidence to a federal, state, or local government official (directly or indirectly) or to an attorney solely for the purpose of reporting or investigating a suspected violation of law, or (ii) is made in a complaint or other document filed in a lawsuit or other proceeding, if (and only if) such filing is made under seal. In addition, an individual who files a lawsuit for retaliation by an employer for reporting a suspected violation of law may disclose the trade secret to the individual's attorney and use the trade secret information in the court proceeding, if the individual files any document containing the trade secret under seal and does not disclose the trade secret, except pursuant to court order. This Release does not limit Executive's right to receive an award for information provided to any Government Agencies.

3. Executive represents that he has not filed against the Released Parties any complaints, charges, or lawsuits arising out of his employment, or any other matter arising on or prior to the date of this General Release of Claims, and covenants and agrees that he will never individually or with any person file, or commence the filing of any lawsuits, complaints or proceedings with any governmental agency, or against the Released Parties with respect to any of the matters released by Executive pursuant to paragraph 1 hereof; provided, that nothing herein shall prevent Executive from filing a charge or complaint with the Equal Employment Opportunity Commission ("**EEOC**") or similar federal or state agency or the Executive's ability to participate in any investigation or proceeding conducted by such agency. Nothing in this paragraph shall serve to limit, restrain or impair Executive's rights under paragraph 2 above.

4. Executive acknowledges that, in the absence of his execution of this General Release of Claims, the Severance Benefits would not otherwise be due to him.

5. Executive acknowledges and agrees that he received adequate consideration in exchange for agreeing to the covenants contained in Section 5 of the Employment Agreement and the EIAA (as defined therein), that such covenants remain reasonable and necessary to protect the legitimate business interests of the Company and its affiliates and that he will continue to comply with those covenants.

6. Executive hereby acknowledges that the Company has informed him that he has up to 21 days to sign this General Release of Claims and he may knowingly and voluntarily waive that 21 day period by signing this General Release of Claims earlier. Executive also understands that he shall have seven days following the date on which he signs this General Release of Claims within which to revoke it by providing a written notice of his revocation to the Company.

7. Executive acknowledges and agrees that this General Release of Claims will be governed by and construed and enforced in accordance with the internal laws of the State of Massachusetts applicable to contracts made and to be performed entirely within such State.

8. Executive acknowledges that he has read this General Release of Claims, that he has been advised that he should consult with an attorney before he executes this general release of claims, and that he understands all of its terms and executes it voluntarily and with full knowledge of its significance and the consequences thereof.

9. This General Release of Claims shall become irrevocable on the eighth day following Executive's execution of this General Release of Claims, unless previously revoked in accordance with paragraph 6, above.

Intending to be legally bound hereby, Executive has executed this General Release of Claims on _____, 20__.

Executive

T. Andrew Crockett

Exhibit 10.6

AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT

This Amended and Restated Executive Employment Agreement ("**Agreement**") is made and entered into on this 26th day of June, 2019 by and between KalVista Pharmaceuticals, Inc., a Delaware corporation (the "**Company**"), and Benjamin L. Palleiko (hereinafter, the "**Executive**").

RECITALS

WHEREAS, the Executive is currently employed by the Company;

WHEREAS, the terms of Executive's employment with the Company are set forth in an Executive Employment Agreement by and between the Company and the Executive previously entered into on the 14th day of March, 2017 (the "**First Agreement**);

WHEREAS, the Company and the Executive now desire to amend and restate the First Agreement;

WHEREAS, the Company and Employee intend that this Agreement shall supersede and replace the First Agreement; and

WHEREAS, the Company desires to continue to employ the Executive and the Executive desires to continue to be employed by the Company on the terms herein described.

NOW, THEREFORE, in consideration of the premises and mutual covenants set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are mutually acknowledged, the Company and the Executive hereby agree as follows:

1. Employment. The Company hereby agrees to employ the Executive and the Executive hereby agrees to serve the Company during the Term of Employment on the terms and conditions set forth herein.

2. Position and Duties of Executive. During the Term of Employment, the Executive shall be employed and serve as the Chief Financial Officer and Chief Business Officer of the Company, and shall have such duties typically associated with such titles, including, without limitation supervising operations and management of the Company and its subsidiaries. The Executive shall faithfully and diligently perform all services as may be assigned to him by the CEO, and shall exercise such power and authority as may from time to time be delegated to him by the CEO. The Executive shall devote his full business time, attention and efforts to the performance of his duties under this Agreement, render such services to the best of his ability, and use his reasonable best efforts to promote the interests of the Company. The Executive shall not engage in any other business or occupation during the Term of Employment, including, without limitation, any activity that (i) conflicts with the interests of the Company or its subsidiaries, (ii) interferes with the proper and efficient performance of his duties for the Company, or (iii) interferes with the exercise of his judgment in the Company's best interests. Notwithstanding the foregoing or any other provision of this Agreement, it shall not be a breach or violation of this Agreement for the Executive to (w) serve on up to two outside corporate or scientific advisory boards with prior notice to the Company, (x) serve on civic or charitable boards or committees, (y) deliver lectures or fulfill speaking engagements, or (z) manage personal investments, so long as any such activities do not interfere with or detract from the performance of the Executive's responsibilities to the Company in accordance with this Agreement.

3. Compensation and Benefits.

(a) ***Base Salary***. The Executive shall receive a Base Salary at the annual rate of $435,000.00, effective as of May 1, 2019, during the Term of Employment, with such Base Salary payable in installments consistent with the Company's normal payroll schedule, subject to applicable withholding and other taxes. The Base Salary shall be reviewed, at least annually, for merit increases and may, by action and in the discretion of

the Board (or its Compensation Committee), be increased at any time or from time to time, but may not be decreased from the then current Base Salary.

(b) ***Bonuses***. During the Term of Employment, the Executive shall participate in the Company's annual incentive compensation plan, program and/or arrangements applicable to senior-level executives, as established and modified from time to time by the Compensation Committee of the Board in its sole discretion. During the Term of Employment, the Executive shall have a target bonus opportunity under such plan or program equal to 40% of his current Base Salary (the "**Target Bonus**"), based on satisfaction of performance criteria to be established by the Compensation Committee of the Board within the first three months of each fiscal year that begins during the Term of Employment. Payment of annual incentive compensation awards shall be made in the same manner and at the same time that other senior-level executives receive their annual incentive compensation awards, but in no event later than 2 ½ months following the last day of the applicable Company fiscal year, and, except as otherwise provided herein, will be subject to the Executive's continued employment through the last day of the applicable Company fiscal year.

(c) ***Compensation/Benefit Programs***. During the Term of Employment, the Executive shall be entitled to participate in all medical, dental, hospitalization, accidental death and dismemberment, disability, travel and life insurance plans, and any and all other plans as are presently and hereinafter offered by the Company to its executive personnel, including savings, pension, profit-sharing and deferred compensation plans, subject to the general eligibility and participation provisions set forth in such plans.

(d) ***Equity Awards***. During the Term of Employment, the Executive shall be eligible to be granted Equity Awards. The number and type of such Equity Awards, and the terms and conditions thereof, shall be determined by the Board or the Compensation Committee of the Board, in its discretion

(e) ***Vacation***. The Executive shall be entitled to 25 days of paid vacation each calendar year during the Term of Employment, subject to the terms of the Company's then effective vacation or paid time off policy.

(f) ***Reimbursement of Reasonable Business Expenses***. Subject to submission of proper substantiation by the Executive, and subject to such rules and guidelines as the Company may from time to time adopt with respect to the reimbursement of reasonable business expenses of executive personnel, the Company shall reimburse the Executive for all reasonable expenses actually paid or incurred by the Executive during the Term of Employment in the course of and pursuant to the business of the Company. The Executive shall account to the Company in writing for all expenses for which reimbursement is sought and shall supply to the Company copies of all relevant invoices, receipts or other evidence reasonably requested by the Company.

4. Termination.

(a) ***General***. The Term of Employment shall terminate upon the earliest to occur of (i) the Executive's death, (ii) a termination by the Company by reason of the Executive's Disability, (iii) a termination by the Company with or without Cause, or (iv) a termination by Executive with or without Good Reason. Upon any termination of Executive's employment for any reason, except as may otherwise be requested by the Company in writing and agreed upon in writing by Executive, the Executive shall resign from any and all directorships, committee memberships or any other positions Executive holds with the Company or any of its Related Entities.

(b) ***Termination by the Company for Cause***. The Company shall at all times have the right, upon written notice to the Executive, to terminate the Term of Employment for Cause. In no event shall a termination of the Executive's employment for Cause occur unless the Company gives written notice to the Executive in accordance with this Agreement stating with reasonable specificity the events or actions that constitute Cause. In the event that the Term of Employment is terminated by the Company for Cause, Executive shall be entitled only to the Accrued Obligations.

(c) ***Disability***. The Company shall have the option, in accordance with applicable law, to terminate the Term of Employment upon written notice to the Executive at any time during which the Executive is suffering from a Disability. In the event that the Term of Employment is terminated due to the Executive's Disability, the Executive shall be entitled to (i) the Accrued Obligations and (ii) any insurance benefits to which he and his beneficiaries are entitled as a result of his Disability.

(d) ***Death***. In the event that the Term of Employment is terminated due to the Executive's death, the Executive's estate shall be entitled to (i) the Accrued Obligations and (ii) any insurance benefits to which he and his beneficiaries are entitled as a result of his death.

(e) ***Termination Without Cause outside of a Change in Control of the Company or Resignation With Good Reason outside of a Change in Control of the Company***. The Company may terminate the Term of Employment without Cause, and the Executive may terminate the Term of Employment for Good Reason, at any time upon written notice. If the Term of Employment is terminated by the Company without Cause (other than due to the Executive's death or Disability) or by the Executive for Good Reason, in either case prior to the date of a Change in Control or more than two years after a Change in Control, the Executive shall be entitled to the following:

(i) The Accrued Obligations;

(ii) A lump sum payment equal to 12 months of Executive's then-current Base Salary;

(iii) Provided that the Executive timely elects continued coverage under COBRA, the Company will reimburse the Executive for the monthly COBRA cost of continued health and dental coverage of the Executive and his qualified beneficiaries paid by the Executive under the health and dental plans of the Company, less the amount that the Executive would be required to contribute for health and dental coverage if the Executive were an active employee of the Company, for 12 months (or, if less, for the duration that such COBRA coverage is available to Executive). Notwithstanding the above, if the Company determines in its sole discretion that it cannot provide the COBRA benefits described herein without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), the Company shall in lieu thereof provide Executive with a taxable lump sum payment in an amount equal to the then-unreimbursed monthly COBRA premiums.

(f) ***Termination by Executive Without Good Reason***. The Executive may terminate his employment without Good Reason by providing the Company 30 days' written notice of such termination. In the event of a termination of employment by the Executive under this Section 4(f), the Executive shall be entitled only to the Accrued Obligations. In the event of termination of the Executive's employment under this Section 4(f), the Company may, in its sole and absolute discretion, by written notice, accelerate such date of termination and still have it treated as a termination without Good Reason.

(g) ***Termination Without Cause in connection with a Change in Control of the Company or Resignation With Good Reason in connection with a Change in Control of the Company***. If the Executive's employment is terminated by the Company (or any entity to which the obligations and benefits under this Agreement have been assigned pursuant to Section 9(b)) without Cause or by the Executive for Good Reason, in either case during the two year period immediately following a Change in Control, then the Executive shall be entitled to the following:

(i) The Accrued Obligations;

(ii) A lump sum payment equal to 15 months of Executive's then-current Base Salary;

(iii) A lump sum payment equal to the Executive's full Target Bonus for the fiscal year in which the Termination Date occurs;

(iv) Provided that the Executive timely elects continued coverage under COBRA, the Company will reimburse the Executive for the monthly COBRA cost of continued health and dental coverage of the Executive and his qualified beneficiaries paid by the Executive under the health and dental plans of the Company, less the amount that the Executive would be required to contribute for health and dental coverage if the Executive were an active employee of the Company, for 15 months (or, if less, for the duration that such COBRA coverage is available to Executive). Notwithstanding the above, if the Company determines in its sole discretion that it cannot provide the COBRA benefits described herein without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), the Company shall in lieu thereof provide Executive with a taxable lump sum payment in an amount equal to the then-unreimbursed monthly COBRA premiums.

(v) All then-unvested Equity Awards will vest in full.

(h) ***Release***. All rights, payments and benefits due to the Executive under this Section 4 (other than the Accrued Obligations) shall be conditioned on the Executive's execution of a general release of claims against the Company and its affiliates substantially in the form attached hereto as Exhibit B (the "**Release**") and on that Release becoming irrevocable within 60 days following the Termination Date. The severance described in this Section 4 (other than Accrued Obligations) shall be paid no later than the first business day following the sixtieth (60th) day following the termination of employment of Executive and in compliance with the timeframe required under Section 409A as set forth herein, and the first payment will include the payments due and owing prior to that payment date but for the application of this sentence. If the Straddle Period (as defined below) spans two (2) calendar years, then the cash payments under this Section 4 (other than Accrued Obligations) shall first be made on the first business day in the second calendar year that occurs after the expiration of the sixty (60)-day period in which the Release must be delivered and effective, as described in this Section 4. The "**Straddle Period**" shall mean the sixty (60)-day period following a termination of employment in which the Release is to be executed and become irrevocable pursuant to this Section 4.

(i) ***Section 280G Certain Reductions of Payments by the Company***.

(1) Anything in this Agreement to the contrary notwithstanding, in the event it shall be determined that any payment or distribution by the Company to or for the benefit of the Executive, whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise (a "**Payment**"), would be nondeductible by the Company for Federal income tax purposes because of Section 280G of the Code, then the aggregate present value of amounts payable or distributable to or for the benefit of the Executive pursuant to this Agreement (such payments or distributions pursuant to this Agreement are hereinafter referred to as "**Agreement Payments**") shall be reduced to the Reduced Amount. The "**Reduced Amount**" shall be an amount expressed in present value that avoids any Payment being nondeductible by the Company because of Section 280G of the Code. To the extent necessary to avoid imposition of the Excise Tax, the amounts payable or benefits to be provided to the Executive shall be reduced such that the reduction of compensation to be provided to the Executive is minimized. In applying this principle, the reduction shall be made in a manner consistent with the requirements of Section 409A of the Code, and where two economically equivalent amounts are subject to reduction but payable at different times, such amounts shall be reduced on a pro rata basis (but not below zero). Anything to the contrary notwithstanding, if the Reduced Amount is zero and it is determined further that any Payment which is not an Agreement Payment would nevertheless be nondeductible by the Company for Federal income tax purposes because of Section 280G of the Code, then the aggregate present value of Payments which are not Agreement Payments shall also be reduced (but not below zero) to an amount expressed in present value which maximizes the aggregate present value of Payments without causing any Payment to be nondeductible by the Company because of Section 280G of the Code. If a reduction of any Payment is required pursuant to this Section 4(i), such reduction shall occur to the amounts in the order that results in the greatest economic present value of all payments and benefits actually made or provided to the Executive. For purposes of this Section 4(i), present value shall be determined in accordance with Section 280G(d)(4) of the Code.

(2) All determinations required to be made under this Section 4(i) shall be made by a tax or compensation consulting firm of national reputation selected by the Company (the "**Consulting Firm**"), which shall provide detailed supporting calculations both to the Company and the Executive within 20 business days of the date of termination or such earlier time as is requested by the Company and an opinion to the Executive that he has substantial authority not to report any excise tax on his Federal income tax return with respect to any Payments. Any such determination by the Consulting Firm shall be binding upon the Company and the Executive. Within five business days thereafter, the Company shall pay to or distribute to or for the benefit of the Executive such amounts as are then due to the Executive under this Agreement. All fees and expenses of the Consulting Firm incurred in connection with the determinations contemplated by this Section 4(i) shall be borne by the Company.

(3) As a result of the uncertainty in the application of Section 280G of the Code at the time of the initial determination by the Consulting Firm hereunder, it is possible that Payments will have been made by the Company which should not have been made ("**Overpayment**") or that additional Payments which will not have been made by the Company could have been made ("**Underpayment**"), in each case, consistent with the calculations required to be made hereunder. In the event that the Consulting Firm, based upon the assertion of a deficiency by the Internal Revenue Service against the Executive which the Consulting Firm believes has a high probability of success, determines that an Overpayment has been made, any such Overpayment paid or distributed by the Company to or for the benefit of the Executive shall be promptly repaid to the Company by the Executive. In the event that the Consulting Firm, based upon controlling precedent or other substantial authority, determines that an Underpayment has occurred, any such Underpayment shall be promptly paid by the Company to or for the benefit of the Executive together with interest at the applicable federal rate provided for in Section 7872(f)(2) of the Code.

(j) ***Cooperation***. Following the Term of Employment, the Executive shall give his assistance and cooperation willingly, upon reasonable advance notice with due consideration for his other business or personal commitments, in any matter relating to his position with the Company, or his expertise or experience as the Company may reasonably request, including his attendance and truthful testimony where deemed appropriate by the Company, with respect to any investigation or the Company's defense or prosecution of any existing or future claims or litigations or other proceedings relating to matters in which he was involved or potentially had knowledge by virtue of his employment with the Company. In no event shall his cooperation materially interfere with his services for a subsequent employer or other similar service recipient. To the extent permitted by law, the Company agrees that (i) it shall promptly reimburse the Executive for his reasonable and documented expenses in connection with his rendering assistance and/or cooperation under this Section 4(j) upon his presentation of documentation for such expenses and (ii) the Executive shall be reasonably compensated for any continued material services as required under this Section 4(j).

(k) ***Return of Company Property***. Following the Termination Date, the Executive or his personal representative shall return all Company property in his possession, including but not limited to all computer equipment (hardware and software), telephones, facsimile machines, cell phones and other communication devices, credit cards, office keys, security access cards, badges, identification cards and all copies (including drafts) of any documentation or information (however stored) relating to the business of the Company, its customers and clients or its prospective customers and clients.

(l) ***Compliance with Section 409A***.

(i) ***General***. It is the intention of both the Company and the Executive that the benefits and rights to which the Executive could be entitled pursuant to this Agreement comply with Section 409A of the Code and the Treasury Regulations and other guidance promulgated or issued thereunder ("**Section 409A**"), to the extent that the requirements of Section 409A are applicable thereto, and the provisions of this Agreement shall be construed in a manner consistent with that intention.

(ii) ***Distributions on Account of Separation from Service***. If and to the extent required to comply with Section 409A, no payment or benefit required to be paid under this Agreement on account of termination of the Executive's employment shall be made unless and until the Executive incurs a "separation from service" within the meaning of Section 409A.

(iii) ***Six Month Delay for Specified Employees***. If the Executive is a "specified employee" (within the meaning of Section 409A(a)(2)(B)(i) of the Code), then no payment or benefit that is payable on account of the Executive's "separation from service", as that term is defined for purposes of Section 409A, shall be made before the date that is six months after the Executive's "separation from service" (or, if earlier, the date of the Executive's death) if and to the extent that such payment or benefit constitutes deferred compensation (or may be nonqualified deferred compensation) under Section 409A and such deferral is required to comply with the requirements of Section 409A. Any payment or benefit delayed by reason of the prior sentence shall be paid out or provided in a single lump sum at the end of such required delay period in order to catch up to the original payment schedule.

(iv) ***Treatment of Each Installment as a Separate Payment***. For purposes of applying the provisions of Section 409A to this Agreement, each separately identified amount to which the Executive is entitled under this Agreement shall be treated as a separate payment. In addition, any series of installment payments under this Agreement shall be treated as a right to a series of separate payments.

(v) ***Taxable Reimbursements and In-Kind Benefits***.

(A) Any reimbursements by the Company to the Executive of any eligible expenses under this Agreement that are not excludable from the Executive's income for Federal income tax purposes (the "**Taxable Reimbursements**") shall be made by no later than the last day of the taxable year of the Executive following the year in which the expense was incurred.

(B) The amount of any Taxable Reimbursements, and the value of any in-kind benefits to be provided to the Executive, during any taxable year of the Executive shall not affect the expenses eligible for reimbursement, or in-kind benefits to be provided, in any other taxable year of the Executive.

(C) The right to Taxable Reimbursement, or in-kind benefits, shall not be subject to liquidation or exchange for another benefit.

(vi) ***Section 409A Compliance***. Notwithstanding the foregoing, the Company does not make any representation to the Executive that the payments or benefits provided under this Agreement are exempt from, or satisfy, the requirements of Section 409A, and the Company shall have no liability or other obligation to indemnify or hold harmless the Executive or any beneficiary of the Executive for any tax, additional tax, interest or penalties that the Executive or any beneficiary of the Executive may incur in the event that any provision of this Agreement, or any amendment or modification thereof, or any other action taken with respect thereto, is deemed to violate any of the requirements of Section 409A.

5. Restrictive Covenants.

(a) ***Confidential Information***. The Executive shall execute and agree to be bound by the terms of the Company's Employee Invention Assignment, Confidentiality and Non-Competition Agreement (the "***EIIA***") as provided therein.

(b) ***Insider Trading Policies***. Executive agrees that he shall comply with and be bound by the Company's insider trading policies with respect to the securities of the Company as now in effect or hereafter adopted or amended.

(c) ***Clawback Provisions***. All incentive and equity awards and payments shall be subject to the clawback policy of the Company, as now in effect or hereafter adopted or amended, and all applicable laws and rules and regulations of the stock exchanges and public market on which the securities of the Company are traded.

(d) ***Injunction***. It is recognized and hereby acknowledged by the parties hereto that a breach by the Executive of any of the covenants contained in this Section 5 or the EIIA may cause irreparable harm and damage to the Company, and its Related Entities, the monetary amount of which may be virtually impossible to ascertain. As a result, the Executive recognizes and hereby acknowledges that the Company and its Related Entities shall be entitled to seek an injunction from any court of competent jurisdiction enjoining and restraining any violation of any or all of the covenants contained in this Section 5 or the EIIA by the Executive or any of his affiliates, associates, partners or agents, either directly or indirectly, and that such right to injunction shall be cumulative and in addition to whatever other remedies the Company may possess.

6. Representations and Warranties of Executive. The Executive represents and warrants to the Company that:

(a) The Executive's employment will not conflict with or result in his breach of any agreement to which he is a party or otherwise may be bound;

(b) The Executive has not violated, and in connection with his employment with the Company will not violate, any non-solicitation, non-competition or other similar covenant or agreement of a prior employer by which he is or may be bound; and

(c) In connection with Executive's employment with the Company, he will not use any confidential or proprietary information that he may have obtained in connection with employment with any prior employer; and

7. Indemnification. Subject to limitations imposed by law, the Company shall indemnify and hold harmless the Executive to the fullest extent permitted by law from and against any and all claims, damages, expenses (including attorneys' fees), judgments, penalties, fines, settlements, and all other liabilities incurred or paid by him in connection with the investigation, defense, prosecution, settlement or appeal of any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative and to which the Executive was or is a party or is threatened to be made a party by reason of the fact that the Executive is or was an officer, employee or agent of the Company, or by reason of anything done or not done by the Executive in any such capacity or capacities, provided that the Executive acted in good faith, in a manner that was not grossly negligent or constituted willful misconduct and in a manner he reasonably believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful.

8. Definitions. When used in this Agreement, the following terms shall have the following meanings:

(a) ***Accrued Obligations***" means:

(i) all accrued but unpaid Base Salary through the end of the Term of Employment;

(ii) any unpaid or unreimbursed expenses incurred in accordance with Company policy to the extent incurred during the Term of Employment;

(iii) any accrued but unpaid benefits provided under the Company's employee benefit plans, subject to and in accordance with the terms of those plans;

(iv) any unpaid Bonus with respect to any completed fiscal year that has ended on or prior to the end of the Term of Employment; and

(v) any accrued but unused vacation pay.

(b) "***Base Salary***" means the salary provided for in Section 3(a) hereof or any increased salary granted to Executive pursuant to Section 3(a) hereof.

(c) "***Beneficial Owner***" and "***Beneficial Ownership***" shall have the meaning ascribed to such terms in Rule 13d-3 promulgated under the Securities Exchange Act of 1934, as amended.

(d) "***Board***" means the Board of Directors of the Company.

(e) "***Bonus***" means any bonus payable to the Executive pursuant to Section 3(b) hereof.

(f) "***Cause***" means any of the following:

(i) Executive's conviction of or plea of nolo contendere to a felony or to any crime involving moral turpitude;

(ii) willful misconduct or gross negligence by the Executive resulting, in either case, in material economic or reputational harm to the Company or any of Related Entities;

(iii) a willful failure by the Executive to carry out the reasonable and lawful directions of the CEO and failure by the Executive to remedy the failure within thirty (30) days after receipt of written notice of same, by the CEO;

(iv) fraud, embezzlement, theft or dishonesty of a material nature by the Executive against the Company or any Related Entity, or a willful material violation by the Executive of a policy or procedure of the Company or any Related Entity, resulting, in any case, in material, reputational or economic harm to the Company or any Related Entity; or

(v) a willful material breach by the Executive of this Agreement and failure by the Executive to remedy the material breach within 30 days after receipt of written notice of same, by the CEO.

(g) "***CEO***" means the Chief Executive Officer of the Company.

(h) "***Change in Control***" means the occurrence of any of the following events: (i) any Person becomes the Beneficial Owner, directly or indirectly, of securities of the Company representing more than fifty percent (50%) of the total voting power represented by the Company's then-outstanding voting securities; provided, however, that for purposes of this subclause (i) the acquisition of additional securities by any one Person who is considered to own more than fifty percent (50%) of the total voting power of the securities of the Company will not be considered a Change in Control; (ii) the consummation of the sale or disposition by the Company of all or substantially all of the Company's assets; (iii) the consummation of a merger or consolidation of the Company with any other corporation, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or its parent) at least fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity or its parent outstanding immediately after such merger or consolidation; or (iv) a change in the effective control of the Company that occurs on the date that a majority of members of the Board is replaced during any twelve (12) month period by members of the Board whose appointment or election is not endorsed by a majority of the members of the Board prior to the date of the appointment or election. For purpose of this subclause (iv), if any Person is considered to be in effective control of the Company, the acquisition of additional control of the

Company by the same Person will not be considered a Change in Control. For purposes of this definition, Persons will be considered to be acting as a group if they are owners of a corporation that enters into a merger, consolidation, purchase or acquisition of stock, or similar business transaction with the Company.

(i) "***COBRA***" means the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended from time to time.

(j) "***Code***" means the Internal Revenue Code of 1986, as amended.

(k) "***Commencement Date***" means the date of this Agreement.

(l) "***Disability***" means the Executive's inability, or failure, to perform the essential functions of his position, with or without reasonable accommodation, for any period of six months or more in any 12 month period, by reason of any medically determinable physical or mental impairment.

(m) "***Equity Awards***" means any stock options, restricted stock, restricted stock units, stock appreciation rights, phantom stock or other equity based awards granted by the Company to the Executive.

(n) "***Excise Tax***" means any excise tax imposed by Section 4999 of the Code, together with any interest and penalties imposed with respect thereto, or any interest or penalties are incurred by the Executive with respect to any such excise tax.

(o) "***Good Reason***" means the occurrence of any of the following events or conditions, without the Executive's express written consent:

(i) a material diminution in the Executive's authority, duties, or responsibilities, provided, however, that the mere acquisition or merger of the Company by itself shall not constitute a material diminution in the Executive's authority, duties, or responsibilities;

(ii) a material reduction by the Company in the Executive's annual Base Salary (which for purposes hereof is deemed to constitute a reduction of greater than 10%, unless such reduction applies as part of a salary reduction program and such program includes similar reductions to all of the Executive's direct reports); or

(iii) the relocation of the Executive's principal place of employment to a location more than 50 miles from the Executive's principal place of employment immediately prior to the Executive's termination.

With respect to each of subsection (i), (ii) and (iii) above, the Executive must provide notice to the Company of the condition giving rise to "Good Reason" within 30 days of the initial existence of such condition, and the Company will have 30 days following such notice to remedy such condition. The Executive must resign the Executive's employment no later than 30 days following the Company's failure to cure the Good Reason or written notice to the Executive that it will decline to do so.

(p) "***Group***" shall have the meaning ascribed to such term in Section 13(d) of the Securities Exchange Act of 1934.

(q) "***Person***" shall have the meaning ascribed to such term in Section 3(a)(9) of the Securities Exchange Act of 1934 and used in Sections 13(d) and 14(d) thereof.

(r) "***Related Entity***" means any Person controlling, controlled by or under common control with the Company or any of its subsidiaries. For this purpose, the terms "controlling," "controlled by" and "under common control with" mean the possession, directly or indirectly, of the power to direct or cause the direction of

the management and policies of a Person, whether through the ownership of voting securities, as trustee or executor, by contract or otherwise, including (without limitation) the ownership, directly or indirectly, of securities having the power to elect a majority of the board of directors or similar body governing the affairs of such Person.

(s) "***Target Bonus***" has the meaning described in Section 3(b).

(t) "***Term of Employment***" means the period during which the Executive shall be employed by the Company pursuant to the terms of this Agreement, which period shall begin on the Commencement Date and continue until terminated in accordance with Section 4 hereof.

(u) "***Termination Date***" means the date on which the Term of Employment ends.

9. Miscellaneous Provisions.

(a) ***Taxes***. All payments or transfers of property made by the Company to the Executive or his estate or beneficiaries shall be subject to the withholding of such amounts relating to taxes as the Company may reasonably determine it should withhold pursuant to any applicable law or regulation.

(b) ***Assignment***. The Company shall have the right to assign this Agreement and its rights and obligations hereunder in whole, but not in part, to any corporation or other entity with or into which the Company may hereafter merge or consolidate or to which the Company may transfer all or substantially all of its assets, if in any such case said corporation or other entity shall by operation of law or expressly in writing assume all obligations of the Company hereunder as fully as if it had been originally made a party hereto, but may not otherwise assign this Agreement or its rights and obligations hereunder. The Executive may not assign or transfer this Agreement or any rights or obligations hereunder.

(c) ***Governing Law***. Except as expressly set forth herein, this letter agreement and the rights and obligations of the parties hereto shall be construed in accordance with the laws of the Commonwealth of Massachusetts, without giving effect to the principles of conflict of laws.

(d) ***Arbitration and Class Action Waiver***. Executive and the Company agree to submit to mandatory binding arbitration any and all claims arising out of or related to Executive's employment with the Company and the termination thereof, including, but not limited to, claims for unpaid wages, wrongful termination, torts, stock or stock options or other ownership interest in the Company, and/or discrimination (including harassment), except as set forth below, based upon any federal, state or local ordinance, statute, regulation or constitutional provision except that each party may, at its, his or her option, seek injunctive relief in court related to the improper use, disclosure or misappropriation of a party's private, proprietary, confidential or trade secret information (collectively, "**Arbitrable Claims**"). Further, to the fullest extent permitted by law, Executive and the Company agree that no class or collective actions can be asserted in arbitration or otherwise. All claims, whether in arbitration or otherwise, must be brought solely in Executive's or the Company's individual capacity, and not as a plaintiff or class member in any purported class or collective proceeding.

THE PARTIES HEREBY WAIVE ANY RIGHTS THEY MAY HAVE TO TRIAL BY JURY IN REGARD TO ARBITRABLE CLAIMS. THE PARTIES FURTHER WAIVE ANY RIGHTS THEY MAY HAVE TO PURSUE OR PARTICIPATE IN A CLASS OR COLLECTIVE ACTION PERTAINING TO ANY ARBITRABLE CLAIMS BETWEEN YOU AND THE COMPANY.

Notwithstanding anything to the contrary herein, nothing in this Arbitration and Class Action Waiver section restricts Executive's right to pursue claims in court (a) on a representative action basis under applicable law or (b) for any alleged sexual harassment or any alleged unlawful discriminatory practices related to sexual harassment.

This Agreement does not restrict Executive's right to file administrative claims Executive may bring before any government agency where, as a matter of law, the parties may not restrict the employee's ability to file such claims (including, but not limited to, the National Labor Relations Board, the Equal Employment Opportunity Commission and the Department of Labor). However, the parties agree that, to the fullest extent permitted by law, arbitration shall be the exclusive remedy for the subject matter of such administrative claims. The arbitration shall be conducted in Boston, Massachusetts through JAMS before a single neutral arbitrator, in accordance with the JAMS employment arbitration rules then in effect. The JAMS rules may be found and reviewed at http://www.jamsadr.com/rules-employment-arbitration. If Executive is unable to access these rules, please let the Company know and Executive will be provided with a hardcopy. The arbitrator shall issue a written decision that contains the essential findings and conclusions on which the decision is based. Executive and the Company agree that this Arbitration and Class Action Waiver Provision shall be governed by the Federal Arbitration Act. Should any portion of this provision be found unenforceable, it shall be severed and the remaining provisions shall remain in full force and effect.

(e) ***Entire Agreement***. This Agreement, together with the exhibit attached hereto, constitutes the entire agreement between the patties hereto with respect to the subject matter hereof and, upon its effectiveness, shall supersede all prior agreements, understandings and arrangements, both oral and written, between the Executive and the Company (or any of its Related Entities) with respect to such subject matter. This Agreement may not be modified in any way unless by a written instrument signed by both the Company and the Executive.

(f) ***Notices***. All notices required or permitted to be given hereunder shall be in writing and shall be personally delivered by courier, sent by registered or certified mail, return receipt requested or sent by confirmed facsimile transmission addressed as set forth herein. Notices personally delivered, sent by facsimile or sent by overnight courier shall be deemed given on the date of delivery and notices mailed in accordance with the foregoing shall be deemed given upon receipt by the addressee, as evidenced by the return receipt thereof. Notice shall be sent (i) if to the Company, addressed to the Company's headquarters, Attention: the Company's CEO, and (ii) if to the Executive, to his address as reflected on the payroll records of the Company, or to such other address as either party shall request by notice to the other in accordance with this provision.

(g) ***Benefits; Binding Effect***. This Agreement shall be for the benefit of and binding upon the parties hereto and their respective heirs, personal representatives, legal representatives, successors and, where permitted and applicable, assigns, including, without limitation, any successor to the Company, whether by merger, consolidation, sale of stock, sale of assets or otherwise.

(h) ***Right to Consult with Counsel***. The Executive acknowledges having read and considered all of the provisions of this Agreement carefully, and having had the opportunity to consult with counsel of his own choosing, and, given this, the Executive agrees that the obligations created hereby are not unreasonable.

(i) ***Severability***. The invalidity of any one or more of the words, phrases, sentences, clauses, provisions, sections or articles contained in this Agreement shall not affect the enforceability of the remaining portions of this Agreement or any part thereof, all of which are inserted conditionally on their being valid in law, and, in the event that any one or more of the words, phrases, sentences, clauses, provisions, sections or articles contained in this Agreement shall be declared invalid, this Agreement shall be construed as if such invalid word or words, phrase or phrases, sentence or sentences, clause or clauses, provisions or provisions, section or sections or article or articles had not been inserted. If such invalidity is caused by length of time or size of area, or both, the otherwise invalid provision will be considered to be reduced to a period or area which would cure such invalidity.

(j) ***Waivers***. The waiver by either party hereto of a breach or violation of any term or provision of this Agreement shall not operate nor be construed as a waiver of any subsequent breach or violation.

(k) ***Damages; Attorneys' Fees***. Nothing contained herein shall be construed to prevent the Company or the Executive from seeking and recovering from the other damages sustained by either or both of them as a result of its or his breach of any term or provision of this Agreement. Each party shall bear its own costs and attorneys' fees.

(l) ***No Set-off or Mitigation***. The Company's obligation to make the payments provided for in this Agreement and otherwise to perform its obligations hereunder shall not be affected by any set off, counterclaim, recoupment, defense or other claim, right or action which the Company may have against the Executive or others. In the event of any termination of the Executive's employment under this Agreement, he shall be under no obligation to seek other employment or otherwise in any way to mitigate the amount of any payment provided for hereunder.

(m) ***Section Headings***. The article, section and paragraph headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement.

(n) ***No Third Party Beneficiary***. The Related Entities are intended third party beneficiaries of this Agreement. Otherwise, nothing expressed or implied in this Agreement is intended, or shall be construed, to confer upon or give any person other than the Company, the parties hereto and their respective heirs, personal representatives, legal representatives, successors and permitted assigns, any rights or remedies under or by reason of this Agreement.

(o) ***Counterparts***. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together shall constitute one and the same instrument and agreement.

[Signature Page to Amended and Restated Executive Employment Agreement Follows]

IN WITNESS WHEREOF, the undersigned have executed this Agreement on the date first above written.

Company	**Executive**
KalVista Pharmaceuticals, Inc.	/s/ Benjamin L. Palleiko
/s/ T. Andrew Crockett	Benjamin L. Palleiko

Print Name: T. Andrew Crockett

Title: Chief Executive Officer

[Signature Page to Amended and Restated Executive Employment Agreement]

Exhibit B

General Release of Claims

1. Benjamin L. Palleiko ("**Executive**"), for himself and his family, heirs, executors, administrators, legal representatives and their respective successors and assigns, in exchange for the consideration received pursuant to Section [4(e)] [4(g)] of the Amended and Restated Executive Employment Agreement (the "**Severance Benefits**") to which this release is attached as Exhibit B (the "**Employment Agreement**"), does hereby release and forever discharge KalVista Pharmaceuticals, Inc. (the "**Company**"), its subsidiaries, affiliated companies, successors and assigns, and its current or former directors, officers, employees, shareholders or agents in such capacities (collectively with the Company, the "**Released Partie**s") from any and all actions, causes of action, suits, controversies, claims and demands whatsoever, for or by reason of any matter, cause or thing whatsoever, whether known or unknown including, but not limited to, all claims under any applicable laws arising under or in connection with Executive's employment or termination thereof, whether for tort, breach of express or implied employment contract, wrongful discharge, intentional infliction of emotional distress, or defamation or injuries incurred on the job or incurred as a result of loss of employment. Without limiting the generality of the release provided above, Executive expressly waives any and all claims under Age Discrimination in Employment Act ("**ADEA**") that he may have as of the date hereof. Executive further understands that, by signing this General Release of Claims, he is in fact waiving, releasing and forever giving up any claim under the ADEA as well as all other laws within the scope of this paragraph 1 that may have existed on or prior to the date hereof. Notwithstanding anything in this paragraph 1 to the contrary, this General Release of Claims shall not apply to (i) any rights to receive any payments or benefits to which the Executive is entitled under COBRA, (ii) any rights or claims that may arise as a result of events occurring after the date this General Release of Claims is executed, (iii) any indemnification and advancement rights Executive may have as a former employee, officer or director of the Company or its subsidiaries or affiliated companies (including any rights under Section 7 of the Employment Agreement), (iv) any claims for benefits under any directors' and officers' liability policy maintained by the Company or its subsidiaries or affiliated companies in accordance with the terms of such policy, (v) rights to vested benefits under the Company's 401(k) plan, and (vi) any rights as a holder of equity securities of the Company.

2. Executive understands that nothing in this Release shall in any way limit or prohibit Executive from engaging in any Protected Activity. For purposes of this Release, "**Protected Activity**" shall mean filing a charge, complaint, or report with, or otherwise communicating, cooperating, or participating in any investigation or proceeding that may be conducted by, any federal, state or local government agency or commission, including the Securities and Exchange Commission, the Equal Employment Opportunity Commission, the Occupational Safety and Health Administration, and the National Labor Relations Board ("**Government Agencies**"). Executive understands that in connection with such Protected Activity, Executive is permitted to disclose documents or other information as permitted by law, and without giving notice to, or receiving authorization from, the Company. Notwithstanding the foregoing, Executive agrees to take all reasonable precautions to prevent any unauthorized use or disclosure of any information that may constitute Company confidential information to any parties other than the Government Agencies. Executive further understands that "Protected Activity" does not include the disclosure of any Company attorney-client privileged communications. In addition, pursuant to the Defend Trade Secrets Act of 2016, Executive is notified that an individual will not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret that (i) is made in confidence to a federal, state, or local government official (directly or indirectly) or to an attorney solely for the purpose of reporting or investigating a suspected violation of law, or (ii) is made in a complaint or other document filed in a lawsuit or other proceeding, if (and only if) such filing is made under seal. In addition, an individual who files a lawsuit for retaliation by an employer for reporting a suspected violation of law may disclose the trade secret to the individual's attorney and use the trade secret information in the court proceeding, if the individual files any document containing the trade secret under seal and does not disclose the trade secret, except pursuant to court order. This Release does not limit Executive's right to receive an award for information provided to any Government Agencies.

3. Executive represents that he has not filed against the Released Parties any complaints, charges, or lawsuits arising out of his employment, or any other matter arising on or prior to the date of this General Release of Claims, and covenants and agrees that he will never individually or with any person file, or commence the filing of any lawsuits, complaints or proceedings with any governmental agency, or against the Released Parties with respect to any of the matters released by Executive pursuant to paragraph 1 hereof; provided, that nothing herein shall prevent Executive from filing a charge or complaint with the Equal Employment Opportunity Commission ("**EEOC**") or similar federal or state agency or the Executive's ability to participate in any investigation or proceeding conducted by such agency. Nothing in this paragraph shall serve to limit, restrain or impair Executive's rights under paragraph 2 above.

4. Executive acknowledges that, in the absence of his execution of this General Release of Claims, the Severance Benefits would not otherwise be due to him.

5. Executive acknowledges and agrees that he received adequate consideration in exchange for agreeing to the covenants contained in Section 5 of the Employment Agreement and the EIAA (as defined therein), that such covenants remain reasonable and necessary to protect the legitimate business interests of the Company and its affiliates and that he will continue to comply with those covenants.

6. Executive hereby acknowledges that the Company has informed him that he has up to 21 days to sign this General Release of Claims and he may knowingly and voluntarily waive that 21 day period by signing this General Release of Claims earlier. Executive also understands that he shall have seven days following the date on which he signs this General Release of Claims within which to revoke it by providing a written notice of his revocation to the Company.

7. Executive acknowledges and agrees that this General Release of Claims will be governed by and construed and enforced in accordance with the internal laws of the State of Massachusetts applicable to contracts made and to be performed entirely within such State.

8. Executive acknowledges that he has read this General Release of Claims, that he has been advised that he should consult with an attorney before he executes this general release of claims, and that he understands all of its terms and executes it voluntarily and with full knowledge of its significance and the consequences thereof.

9. This General Release of Claims shall become irrevocable on the eighth day following Executive's execution of this General Release of Claims, unless previously revoked in accordance with paragraph 6, above.

Intending to be legally bound hereby, Executive has executed this General Release of Claims on _____, 20__.

Executive

Benjamin L. Palleiko

Exhibit 10.13

AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT

This Amended and Restated Executive Employment Agreement ("**Agreement**") is made and entered into on this 26th day of June, 2019 by and between KalVista Pharmaceuticals, Inc., a Delaware corporation (the "**Company**"), and Andreas Maetzel (hereinafter, the "**Executive**").

RECITALS

WHEREAS, the Executive is currently employed by the Company;

WHEREAS, the terms of Executive's employment with the Company are set forth in an Executive Employment Agreement by and between the Company and the Executive previously entered into on the 21st day of August, 2017 (the "**First Agreement**);

WHEREAS, the Company and the Executive now desire to amend and restate the First Agreement;

WHEREAS, the Company and Employee intend that this Agreement shall supersede and replace the First Agreement; and

WHEREAS, the Company desires to continue to employ the Executive and the Executive desires to continue to be employed by the Company on the terms herein described.

NOW, THEREFORE, in consideration of the premises and mutual covenants set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are mutually acknowledged, the Company and the Executive hereby agree as follows:

1. Employment. The Company hereby agrees to employ the Executive and the Executive hereby agrees to serve the Company during the Term of Employment on the terms and conditions set forth herein. It is anticipated that Executive will relocate to the Boston metropolitan area at a time to be mutually agreed upon by the Company and Executive.

2. Position and Duties of Executive. During the Term of Employment, the Executive shall be employed and serve as the SVP Medical of the Company, and shall have such duties typically associated with such titles, including, without limitation supervising operations and management of the Company and its subsidiaries. The Executive shall faithfully and diligently perform all services as may be assigned to him by the CEO, and shall exercise such power and authority as may from time to time be delegated to him by the CEO. The Executive shall devote his full business time, attention and efforts to the performance of his duties under this Agreement, render such services to the best of his ability, and use his reasonable best efforts to promote the interests of the Company. The Executive shall not engage in any other business or occupation during the Term of Employment, including, without limitation, any activity that (i) conflicts with the interests of the Company or its subsidiaries, (ii) interferes with the proper and efficient performance of his duties for the Company, or (iii) interferes with the exercise of his judgment in the Company's best interests. Notwithstanding the foregoing or any other provision of this Agreement, it shall not be a breach or violation of this Agreement for the Executive to (x) serve on civic or charitable boards or committees, (y) deliver lectures or fulfill speaking engagements, or (z) manage personal investments, so long as any such activities do not interfere with or detract from the performance of the Executive's responsibilities to the Company in accordance with this Agreement.

3. Compensation and Benefits.

(a) ***Base Salary***. The Executive shall receive a Base Salary at the annual rate of $355,000.00, effective as of May 1, 2019, during the Term of Employment, with such Base Salary payable in installments consistent with the Company's normal payroll schedule, subject to applicable withholding and other taxes. The Base Salary shall be reviewed, at least annually.

(b) ***Bonuses***. During the Term of Employment, the Executive shall participate in the Company's annual incentive compensation plan, program and/or arrangements applicable to senior-level executives, as established and modified from time to time by the Compensation Committee of the Board in its sole discretion. During the Term of Employment, the Executive shall have a target bonus opportunity under such plan or program equal to 35% of his current Base Salary (the "**Target Bonus**"), based on satisfaction of performance criteria to be established by the Compensation Committee of the Board within the first three months of each fiscal year that begins during the Term of Employment. Payment of annual incentive compensation awards shall be made in the same manner and at the same time that other senior-level executives receive their annual incentive compensation awards, but in no event later than 2 ½ months following the last day of the applicable Company fiscal year, and, except as otherwise provided herein, will be subject to the Executive's continued employment through the last day of the applicable Company fiscal year.

(c) ***Compensation/Benefit Programs***. During the Term of Employment, the Executive shall be entitled to participate in all medical, dental, hospitalization, accidental death and dismemberment, disability, travel and life insurance plans, and any and all other plans as are presently and hereinafter offered by the Company to its executive personnel, including savings, pension, profit-sharing and deferred compensation plans, subject to the general eligibility and participation provisions set forth in such plans.

(d) ***Equity Awards***. During the Term of Employment, the Executive shall be eligible to be granted Equity Awards. The number and type of such Equity Awards, and the terms and conditions thereof, shall be determined by the Board or the Compensation Committee of the Board, in its discretion

(e) ***Vacation***. The Executive shall be entitled to paid vacation each calendar year during the Term of Employment, in accordance with and subject to the terms of the Company's then effective vacation or paid time off policy.

(f) ***Relocation Expenses***. Subject to submission of proper substantiation by the Executive, and subject to such rules and guidelines as the Company may from time to time adopt with respect to the reimbursement of reasonable business expenses of executive personnel, the Company shall reimburse you for your relocation expenses up to a maximum of $25,000.

(g) ***Reimbursement of Reasonable Business Expenses***. Subject to submission of proper substantiation by the Executive, and subject to such rules and guidelines as the Company may from time to time adopt with respect to the reimbursement of reasonable business expenses of executive personnel, the Company shall reimburse the Executive for all reasonable expenses actually paid or incurred by the Executive during the Term of Employment in the course of and pursuant to the business of the Company. In accordance with and subject to the Company's standard travel and business expense reimbursement policy, the Company will reimburse the Executive for reasonable travel expenses incurred traveling to the Company's offices in Boston, Massachusetts (if the Executive remains located in North Carolina) and the United Kingdom. The Executive shall account to the Company in writing for all expenses for which reimbursement is sought and shall supply to the Company copies of all relevant invoices, receipts or other evidence reasonably requested by the Company.

4. Termination.

(a) ***General***. The Term of Employment shall terminate upon the earliest to occur of (i) the Executive's death, (ii) a termination by the Company by reason of the Executive's Disability, (iii) a termination by the Company with or without Cause, or (iv) a termination by Executive with or without Good Reason. Upon any termination of Executive's employment for any reason, except as may otherwise be requested by the Company in writing and agreed upon in writing by Executive, the Executive shall resign from any and all directorships, committee memberships or any other positions Executive holds with the Company or any of its Related Entities.

(b) ***Termination by the Company for Cause***. The Company shall at all times have the right, upon written notice to the Executive, to terminate the Term of Employment for Cause. In no event shall a

termination of the Executive's employment for Cause occur unless the Company gives written notice to the Executive in accordance with this Agreement stating with reasonable specificity the events or actions that constitute Cause. In the event that the Term of Employment is terminated by the Company for Cause, Executive shall be entitled only to the Accrued Obligations.

(c) ***Disability***. The Company shall have the option, in accordance with applicable law, to terminate the Term of Employment upon written notice to the Executive at any time during which the Executive is suffering from a Disability. In the event that the Term of Employment is terminated due to the Executive's Disability, the Executive shall be entitled to (i) the Accrued Obligations and (ii) any insurance benefits to which he and his beneficiaries are entitled as a result of his Disability.

(d) ***Death***. In the event that the Term of Employment is terminated due to the Executive's death, the Executive's estate shall be entitled to (i) the Accrued Obligations and (ii) any insurance benefits to which he and his beneficiaries are entitled as a result of his death.

(e) ***Termination Without Cause outside of a Change in Control of the Company or Resignation With Good Reason outside of a Change in Control of the Company***. The Company may terminate the Term of Employment without Cause, and the Executive may terminate the Term of Employment for Good Reason, at any time upon written notice. If the Term of Employment is terminated by the Company without Cause (other than due to the Executive's death or Disability) or by the Executive for Good Reason, in either case prior to the date of a Change in Control or more than two years after a Change in Control, the Executive shall be entitled to the following:

(i) The Accrued Obligations;

(ii) A lump sum payment equal to 9 months of Executive's then-current Base Salary;

(iii) Provided that the Executive timely elects continued coverage under COBRA, the Company will reimburse the Executive for the monthly COBRA cost of continued health and dental coverage of the Executive and his qualified beneficiaries paid by the Executive under the health and dental plans of the Company, less the amount that the Executive would be required to contribute for health and dental coverage if the Executive were an active employee of the Company, for 9 months (or, if less, for the duration that such COBRA coverage is available to Executive). Notwithstanding the above, if the Company determines in its sole discretion that it cannot provide the COBRA benefits described herein without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), the Company shall in lieu thereof provide Executive with a taxable lump sum payment in an amount equal to the then-unreimbursed monthly COBRA premiums.

(f) ***Termination by Executive Without Good Reason***. The Executive may terminate his employment without Good Reason by providing the Company 30 days' written notice of such termination. In the event of a termination of employment by the Executive under this Section 4(f), the Executive shall be entitled only to the Accrued Obligations. In the event of termination of the Executive's employment under this Section 4(f), the Company may, in its sole and absolute discretion, by written notice, accelerate such date of termination and still have it treated as a termination without Good Reason.

(g) ***Termination Without Cause in connection with a Change in Control of the Company or Resignation With Good Reason in connection with a Change in Control of the Company***. If the Executive's employment is terminated by the Company (or any entity to which the obligations and benefits under this Agreement have been assigned pursuant to Section 9(b)) without Cause or by the Executive for Good Reason, in either case during the two year period immediately following a Change in Control, then the Executive shall be entitled to the following:

(i) The Accrued Obligations;

(ii) A lump sum payment equal to 12 months of Executive's then-current Base Salary;

(iii) A lump sum payment equal to the Executive's full Target Bonus for the fiscal year in which the Termination Date occurs;

(iv) Provided that the Executive timely elects continued coverage under COBRA, the Company will reimburse the Executive for the monthly COBRA cost of continued health and dental coverage of the Executive and his qualified beneficiaries paid by the Executive under the health and dental plans of the Company, less the amount that the Executive would be required to contribute for health and dental coverage if the Executive were an active employee of the Company, for 12 months (or, if less, for the duration that such COBRA coverage is available to Executive). Notwithstanding the above, if the Company determines in its sole discretion that it cannot provide the COBRA benefits described herein without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), the Company shall in lieu thereof provide Executive with a taxable lump sum payment in an amount equal to the then-unreimbursed monthly COBRA premiums.

(v) All then-unvested Equity Awards will vest in full.

(h) ***Release***. All rights, payments and benefits due to the Executive under this Section 4 (other than the Accrued Obligations) shall be conditioned on the Executive's execution of a general release of claims against the Company and its affiliates substantially in the form attached hereto as Exhibit B (the "**Release**") and on that Release becoming irrevocable within 60 days following the Termination Date. The severance described in this Section 4 (other than Accrued Obligations) shall be paid no later than the first business day following the sixtieth (60th) day following the termination of employment of Executive and in compliance with the timeframe required under Section 409A as set forth herein, and the first payment will include the payments due and owing prior to that payment date but for the application of this sentence. If the Straddle Period (as defined below) spans two (2) calendar years, then the cash payments under this Section 4 (other than Accrued Obligations) shall first be made on the first business day in the second calendar year that occurs after the expiration of the sixty (60)-day period in which the Release must be delivered and effective, as described in this Section 4. The "**Straddle Period**" shall mean the sixty (60)-day period following a termination of employment in which the Release is to be executed and become irrevocable pursuant to this Section 4.

(i) ***Section 280G Certain Reductions of Payments by the Company***.

(1) Anything in this Agreement to the contrary notwithstanding, in the event it shall be determined that any payment or distribution by the Company to or for the benefit of the Executive, whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise (a "**Payment**"), would be nondeductible by the Company for Federal income tax purposes because of Section 280G of the Code, then the aggregate present value of amounts payable or distributable to or for the benefit of the Executive pursuant to this Agreement (such payments or distributions pursuant to this Agreement are hereinafter referred to as "**Agreement Payments**") shall be reduced to the Reduced Amount. The "**Reduced Amount**" shall be an amount expressed in present value that avoids any Payment being nondeductible by the Company because of Section 280G of the Code. To the extent necessary to avoid imposition of the Excise Tax, the amounts payable or benefits to be provided to the Executive shall be reduced such that the reduction of compensation to be provided to the Executive is minimized. In applying this principle, the reduction shall be made in a manner consistent with the requirements of Section 409A of the Code, and where two economically equivalent amounts are subject to reduction but payable at different times, such amounts shall be reduced on a pro rata basis (but not below zero). Anything to the contrary notwithstanding, if the Reduced Amount is zero and it is determined further that any Payment which is not an Agreement Payment would nevertheless be nondeductible by the Company for Federal income tax purposes because of Section 280G of the Code, then the aggregate present value of Payments which are not Agreement Payments shall also be reduced (but not below zero) to an amount expressed in present

value which maximizes the aggregate present value of Payments without causing any Payment to be nondeductible by the Company because of Section 280G of the Code. If a reduction of any Payment is required pursuant to this Section 4(i), such reduction shall occur to the amounts in the order that results in the greatest economic present value of all payments and benefits actually made or provided to the Executive. For purposes of this Section 4(i), present value shall be determined in accordance with Section 280G(d)(4) of the Code.

(2) All determinations required to be made under this Section 4(i) shall be made by a tax or compensation consulting firm of national reputation selected by the Company (the "**Consulting Firm**"), which shall provide detailed supporting calculations both to the Company and the Executive within 20 business days of the date of termination or such earlier time as is requested by the Company and an opinion to the Executive that he has substantial authority not to report any excise tax on his Federal income tax return with respect to any Payments. Any such determination by the Consulting Firm shall be binding upon the Company and the Executive. Within five business days thereafter, the Company shall pay to or distribute to or for the benefit of the Executive such amounts as are then due to the Executive under this Agreement. All fees and expenses of the Consulting Firm incurred in connection with the determinations contemplated by this Section 4(i) shall be borne by the Company.

(3) As a result of the uncertainty in the application of Section 280G of the Code at the time of the initial determination by the Consulting Firm hereunder, it is possible that Payments will have been made by the Company which should not have been made ("**Overpayment**") or that additional Payments which will not have been made by the Company could have been made ("**Underpayment**"), in each case, consistent with the calculations required to be made hereunder. In the event that the Consulting Firm, based upon the assertion of a deficiency by the Internal Revenue Service against the Executive which the Consulting Firm believes has a high probability of success, determines that an Overpayment has been made, any such Overpayment paid or distributed by the Company to or for the benefit of the Executive shall be promptly repaid to the Company by the Executive. In the event that the Consulting Firm, based upon controlling precedent or other substantial authority, determines that an Underpayment has occurred, any such Underpayment shall be promptly paid by the Company to or for the benefit of the Executive together with interest at the applicable federal rate provided for in Section 7872(f)(2) of the Code.

(j) ***Cooperation***. Following the Term of Employment, the Executive shall give his assistance and cooperation willingly, upon reasonable advance notice with due consideration for his other business or personal commitments, in any matter relating to his position with the Company, or his expertise or experience as the Company may reasonably request, including his attendance and truthful testimony where deemed appropriate by the Company, with respect to any investigation or the Company's defense or prosecution of any existing or future claims or litigations or other proceedings relating to matters in which he was involved or potentially had knowledge by virtue of his employment with the Company. In no event shall his cooperation materially interfere with his services for a subsequent employer or other similar service recipient. To the extent permitted by law, the Company agrees that (i) it shall promptly reimburse the Executive for his reasonable and documented expenses in connection with his rendering assistance and/or cooperation under this Section 4(j) upon his presentation of documentation for such expenses and (ii) the Executive shall be reasonably compensated for any continued material services as required under this Section 4(j).

(k) ***Return of Company Property***. Following the Termination Date, the Executive or his personal representative shall return all Company property in his possession, including but not limited to all computer equipment (hardware and software), telephones, facsimile machines, cell phones and other communication devices, credit cards, office keys, security access cards, badges, identification cards and all copies (including drafts) of any documentation or information (however stored) relating to the business of the Company, its customers and clients or its prospective customers and clients.

(l) ***Compliance with Section 409A***.

(i) ***General***. It is the intention of both the Company and the Executive that the benefits and rights to which the Executive could be entitled pursuant to this Agreement comply with Section 409A of the Code and the Treasury Regulations and other guidance promulgated or issued thereunder ("**Section 409A**"), to the extent that the requirements of Section 409A are applicable thereto, and the provisions of this Agreement shall be construed in a manner consistent with that intention.

(ii) ***Distributions on Account of Separation from Service***. If and to the extent required to comply with Section 409A, no payment or benefit required to be paid under this Agreement on account of termination of the Executive's employment shall be made unless and until the Executive incurs a "separation from service" within the meaning of Section 409A.

(iii) ***Six Month Delay for Specified Employees***. If the Executive is a "specified employee" (within the meaning of Section 409A(a)(2)(B)(i) of the Code), then no payment or benefit that is payable on account of the Executive's "separation from service", as that term is defined for purposes of Section 409A, shall be made before the date that is six months after the Executive's "separation from service" (or, if earlier, the date of the Executive's death) if and to the extent that such payment or benefit constitutes deferred compensation (or may be nonqualified deferred compensation) under Section 409A and such deferral is required to comply with the requirements of Section 409A. Any payment or benefit delayed by reason of the prior sentence shall be paid out or provided in a single lump sum at the end of such required delay period in order to catch up to the original payment schedule.

(iv) ***Treatment of Each Installment as a Separate Payment***. For purposes of applying the provisions of Section 409A to this Agreement, each separately identified amount to which the Executive is entitled under this Agreement shall be treated as a separate payment. In addition, any series of installment payments under this Agreement shall be treated as a right to a series of separate payments.

(v) ***Taxable Reimbursements and In-Kind Benefits***.

(A) Any reimbursements by the Company to the Executive of any eligible expenses under this Agreement that are not excludable from the Executive's income for Federal income tax purposes (the "**Taxable Reimbursements**") shall be made by no later than the last day of the taxable year of the Executive following the year in which the expense was incurred.

(B) The amount of any Taxable Reimbursements, and the value of any in-kind benefits to be provided to the Executive, during any taxable year of the Executive shall not affect the expenses eligible for reimbursement, or in-kind benefits to be provided, in any other taxable year of the Executive.

(C) The right to Taxable Reimbursement, or in-kind benefits, shall not be subject to liquidation or exchange for another benefit.

(vi) ***Section 409A Compliance***. Notwithstanding the foregoing, the Company does not make any representation to the Executive that the payments or benefits provided under this Agreement are exempt from, or satisfy, the requirements of Section 409A, and the Company shall have no liability or other obligation to indemnify or hold harmless the Executive or any beneficiary of the Executive for any tax, additional tax, interest or penalties that the Executive or any beneficiary of the Executive may incur in the event that any provision of this Agreement, or any amendment or modification thereof, or any other action taken with respect thereto, is deemed to violate any of the requirements of Section 409A.

5. Restrictive Covenants.

(a) ***Confidential Information***. The Executive shall execute and agree to be bound by the terms of the Company's Employee Invention Assignment, Confidentiality and Non-Competition Agreement (the "***EIIA***") as provided therein.

(b) ***Insider Trading Policies***. Executive agrees that he shall comply with and be bound by the Company's insider trading policies with respect to the securities of the Company as now in effect or hereafter adopted or amended.

(c) ***Clawback Provisions***. All incentive and equity awards and payments shall be subject to the clawback policy of the Company, as now in effect or hereafter adopted or amended, and all applicable laws and rules and regulations of the stock exchanges and public market on which the securities of the Company are traded.

(d) ***Injunction***. It is recognized and hereby acknowledged by the parties hereto that a breach by the Executive of any of the covenants contained in this Section 5 or the EIIA may cause irreparable harm and damage to the Company, and its Related Entities, the monetary amount of which may be virtually impossible to ascertain. As a result, the Executive recognizes and hereby acknowledges that the Company and its Related Entities shall be entitled to seek an injunction from any court of competent jurisdiction enjoining and restraining any violation of any or all of the covenants contained in this Section 5 or the EIIA by the Executive or any of his affiliates, associates, partners or agents, either directly or indirectly, and that such right to injunction shall be cumulative and in addition to whatever other remedies the Company may possess.

6. Representations and Warranties of Executive. The Executive represents and warrants to the Company that:

(a) The Executive's employment will not conflict with or result in his breach of any agreement to which he is a party or otherwise may be bound;

(b) The Executive has not violated, and in connection with his employment with the Company will not violate, any non-solicitation, non-competition or other similar covenant or agreement of a prior employer by which he is or may be bound; and

(c) In connection with Executive's employment with the Company, he will not use any confidential or proprietary information that he may have obtained in connection with employment with any prior employer; and

7. Indemnification. Subject to limitations imposed by law, the Company shall indemnify and hold harmless the Executive to the fullest extent permitted by law from and against any and all claims, damages, expenses (including attorneys' fees), judgments, penalties, fines, settlements, and all other liabilities incurred or paid by him in connection with the investigation, defense, prosecution, settlement or appeal of any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative and to which the Executive was or is a party or is threatened to be made a party by reason of the fact that the Executive is or was an officer, employee or agent of the Company, or by reason of anything done or not done by the Executive in any such capacity or capacities, provided that the Executive acted in good faith, in a manner that was not grossly negligent or constituted willful misconduct and in a manner he reasonably believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful.

8. Definitions. When used in this Agreement, the following terms shall have the following meanings:

(a) ***Accrued Obligations***" means:

(i) all accrued but unpaid Base Salary through the end of the Term of Employment;

(ii) any unpaid or unreimbursed expenses incurred in accordance with Company policy to the extent incurred during the Term of Employment;

(iii) any accrued but unpaid benefits provided under the Company's employee benefit plans, subject to and in accordance with the terms of those plans;

(iv) any unpaid Bonus with respect to any completed fiscal year that has ended on or prior to the end of the Term of Employment; and

(v) any accrued but unused vacation pay.

(b) "***Base Salary***" means the salary provided for in Section 3(a) hereof or any increased salary granted to Executive pursuant to Section 3(a) hereof.

(c) "***Beneficial Owner***" and "***Beneficial Ownership***" shall have the meaning ascribed to such terms in Rule 13d-3 promulgated under the Securities Exchange Act of 1934, as amended.

(d) "***Board***" means the Board of Directors of the Company.

(e) "***Bonus***" means any bonus payable to the Executive pursuant to Section 3(b) hereof.

(f) "***Cause***" means any of the following:

(i) Executive's conviction of or plea of nolo contendere to a felony or to any crime involving moral turpitude;

(ii) willful misconduct or gross negligence by the Executive resulting, in either case, in material economic or reputational harm to the Company or any of Related Entities;

(iii) a willful failure by the Executive to carry out the reasonable and lawful directions given to him with respect to his employment as the Company's Senior Vice President Medical and failure by the Executive to remedy the failure within thirty (30) days after receipt of written notice of same from the Company;

(iv) fraud, embezzlement, theft or dishonesty of a material nature by the Executive against the Company or any Related Entity, or a willful material violation by the Executive of a policy or procedure of the Company or any Related Entity, resulting, in any case, in material, reputational or economic harm to the Company or any Related Entity; or

(v) a willful material breach by the Executive of this Agreement and failure by the Executive to remedy the material breach within 30 days after receipt of written notice of same by the Company.

(g) "***CEO***" means the Chief Executive Officer of the Company.

(h) "***Change in Control***" means the occurrence of any of the following events: (i) any Person becomes the Beneficial Owner, directly or indirectly, of securities of the Company representing more than fifty percent (50%) of the total voting power represented by the Company's then-outstanding voting securities; provided, however, that for purposes of this subclause (i) the acquisition of additional securities by any one Person who is considered to own more than fifty percent (50%) of the total voting power of the securities of the Company will not be considered a Change in Control; (ii) the consummation of the sale or disposition by the Company of all or substantially all of the Company's assets; (iii) the consummation of a merger or consolidation of the Company with any other corporation, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or its parent) at least fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity or its parent outstanding immediately after such merger or consolidation; or (iv) a change in the effective control of the Company that occurs on the date that a majority of members of the Board is replaced during any twelve (12)

month period by members of the Board whose appointment or election is not endorsed by a majority of the members of the Board prior to the date of the appointment or election. For purpose of this subclause (iv), if any Person is considered to be in effective control of the Company, the acquisition of additional control of the Company by the same Person will not be considered a Change in Control. For purposes of this definition, Persons will be considered to be acting as a group if they are owners of a corporation that enters into a merger, consolidation, purchase or acquisition of stock, or similar business transaction with the Company.

(i) "***COBRA***" means the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended from time to time.

(j) "***Code***" means the Internal Revenue Code of 1986, as amended.

(k) "***Commencement Date***" means the date of this Agreement.

(l) "***Disability***" means the Executive's inability, or failure, to perform the essential functions of his position, with or without reasonable accommodation, for any period of six months or more in any 12 month period, by reason of any medically determinable physical or mental impairment.

(m) "***Equity Awards***" means any stock options, restricted stock, restricted stock units, stock appreciation rights, phantom stock or other equity based awards granted by the Company to the Executive.

(n) "***Excise Tax***" means any excise tax imposed by Section 4999 of the Code, together with any interest and penalties imposed with respect thereto, or any interest or penalties are incurred by the Executive with respect to any such excise tax.

(o) "***Good Reason***" means the occurrence of any of the following events or conditions, without the Executive's express written consent:

(i) a material reduction by the Company in the Executive's annual Base Salary (which for purposes hereof is deemed to constitute a reduction of greater than 10%, unless such reduction applies as part of a salary reduction program and such program includes similar reductions to all of the Executive's direct reports); or

(ii) the relocation of the Executive's principal place of employment to a location more than 50 miles from the Executive's principal place of employment immediately prior to the Executive's termination (excluding the Executive's contemplated relocation to the Boston metropolitan area).

With respect to each of subsection (i) and (ii) above, the Executive must provide notice to the Company of the condition giving rise to "Good Reason" within 30 days of the initial existence of such condition, and the Company will have 30 days following such notice to remedy such condition. The Executive must resign the Executive's employment no later than 30 days following the Company's failure to cure the Good Reason or written notice to the Executive that it will decline to do so.

(p) "***Group***" shall have the meaning ascribed to such term in Section 13(d) of the Securities Exchange Act of 1934.

(q) "***Person***" shall have the meaning ascribed to such term in Section 3(a)(9) of the Securities Exchange Act of 1934 and used in Sections 13(d) and 14(d) thereof.

(r) "***Related Entity***" means any Person controlling, controlled by or under common control with the Company or any of its subsidiaries. For this purpose, the terms "controlling," "controlled by" and "under common control with" mean the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of a Person, whether through the ownership of voting securities, as trustee or

executor, by contract or otherwise, including (without limitation) the ownership, directly or indirectly, of securities having the power to elect a majority of the board of directors or similar body governing the affairs of such Person.

(s) "***Target Bonus***" has the meaning described in Section 3(b).

(t) "***Term of Employment***" means the period during which the Executive shall be employed by the Company pursuant to the terms of this Agreement, which period shall begin on the Commencement Date and continue until terminated in accordance with Section 4 hereof.

(u) "***Termination Date***" means the date on which the Term of Employment ends.

9. Miscellaneous Provisions.

(a) ***Taxes***. All payments or transfers of property made by the Company to the Executive or his estate or beneficiaries shall be subject to the withholding of such amounts relating to taxes as the Company may reasonably determine it should withhold pursuant to any applicable law or regulation.

(b) ***Assignment***. The Company shall have the right to assign this Agreement and its rights and obligations hereunder in whole, but not in part, to any corporation or other entity with or into which the Company may hereafter merge or consolidate or to which the Company may transfer all or substantially all of its assets, if in any such case said corporation or other entity shall by operation of law or expressly in writing assume all obligations of the Company hereunder as fully as if it had been originally made a party hereto, but may not otherwise assign this Agreement or its rights and obligations hereunder. The Executive may not assign or transfer this Agreement or any rights or obligations hereunder.

(c) ***Governing Law and At-will nature of Employment***. Except as expressly set forth herein, this letter agreement and the rights and obligations of the parties hereto shall be construed in accordance with the laws of the Commonwealth of Massachusetts, without giving effect to the principles of conflict of laws. Executive's employment with the Company is employment at-will, which means either Executive or the Company may terminate Executive's employment at any time and for any reason subject to the provisions of Section 4 of this Agreement.

(d) ***Arbitration and Class Action Waiver***. Executive and the Company agree to submit to mandatory binding arbitration any and all claims arising out of or related to Executive's employment with the Company and the termination thereof, including, but not limited to, claims for unpaid wages, wrongful termination, torts, stock or stock options or other ownership interest in the Company, and/or discrimination (including harassment), except as set forth below, based upon any federal, state or local ordinance, statute, regulation or constitutional provision except that each party may, at its, his or her option, seek injunctive relief in court related to the improper use, disclosure or misappropriation of a party's private, proprietary, confidential or trade secret information (collectively, "**Arbitrable Claims**"). Further, to the fullest extent permitted by law, Executive and the Company agree that no class or collective actions can be asserted in arbitration or otherwise. All claims, whether in arbitration or otherwise, must be brought solely in Executive's or the Company's individual capacity, and not as a plaintiff or class member in any purported class or collective proceeding.

THE PARTIES HEREBY WAIVE ANY RIGHTS THEY MAY HAVE TO TRIAL BY JURY IN REGARD TO ARBITRABLE CLAIMS. THE PARTIES FURTHER WAIVE ANY RIGHTS THEY MAY HAVE TO PURSUE OR PARTICIPATE IN A CLASS OR COLLECTIVE ACTION PERTAINING TO ANY ARBITRABLE CLAIMS BETWEEN YOU AND THE COMPANY.

Notwithstanding anything to the contrary herein, nothing in this Arbitration and Class Action Waiver section restricts Executive's right to pursue claims in court (a) on a representative action basis under applicable law or (b) for any alleged sexual harassment or any alleged unlawful discriminatory practices related to sexual harassment.

This Agreement does not restrict Executive's right to file administrative claims Executive may bring before any government agency where, as a matter of law, the parties may not restrict the employee's ability to file such claims (including, but not limited to, the National Labor Relations Board, the Equal Employment Opportunity Commission and the Department of Labor). However, the parties agree that, to the fullest extent permitted by law, arbitration shall be the exclusive remedy for the subject matter of such administrative claims. The arbitration shall be conducted in Boston, Massachusetts through JAMS before a single neutral arbitrator, in accordance with the JAMS employment arbitration rules then in effect. The JAMS rules may be found and reviewed at http://www.jamsadr.com/rules-employment-arbitration. If Executive is unable to access these rules, please let the Company know and Executive will be provided with a hardcopy. The arbitrator shall issue a written decision that contains the essential findings and conclusions on which the decision is based. Executive and the Company agree that this Arbitration and Class Action Waiver Provision shall be governed by the Federal Arbitration Act. Should any portion of this provision be found unenforceable, it shall be severed and the remaining provisions shall remain in full force and effect.

(e) ***Entire Agreement***. This Agreement, together with the exhibit attached hereto, constitutes the entire agreement between the patties hereto with respect to the subject matter hereof and, upon its effectiveness, shall supersede all prior agreements, understandings and arrangements, both oral and written, between the Executive and the Company (or any of its Related Entities) with respect to such subject matter. This Agreement may not be modified in any way unless by a written instrument signed by both the Company and the Executive.

(f) ***Notices***. All notices required or permitted to be given hereunder shall be in writing and shall be personally delivered by courier, sent by registered or certified mail, return receipt requested or sent by confirmed facsimile transmission addressed as set forth herein. Notices personally delivered, sent by facsimile or sent by overnight courier shall be deemed given on the date of delivery and notices mailed in accordance with the foregoing shall be deemed given upon receipt by the addressee, as evidenced by the return receipt thereof. Notice shall be sent (i) if to the Company, addressed to the Company's headquarters, Attention: the Company's CEO, and (ii) if to the Executive, to his address as reflected on the payroll records of the Company, or to such other address as either party shall request by notice to the other in accordance with this provision.

(g) ***Benefits; Binding Effect***. This Agreement shall be for the benefit of and binding upon the parties hereto and their respective heirs, personal representatives, legal representatives, successors and, where permitted and applicable, assigns, including, without limitation, any successor to the Company, whether by merger, consolidation, sale of stock, sale of assets or otherwise.

(h) ***Right to Consult with Counsel***. The Executive acknowledges having read and considered all of the provisions of this Agreement carefully, and having had the opportunity to consult with counsel of his own choosing, and, given this, the Executive agrees that the obligations created hereby are not unreasonable.

(i) ***Severability***. The invalidity of any one or more of the words, phrases, sentences, clauses, provisions, sections or articles contained in this Agreement shall not affect the enforceability of the remaining portions of this Agreement or any part thereof, all of which are inserted conditionally on their being valid in law, and, in the event that any one or more of the words, phrases, sentences, clauses, provisions, sections or articles contained in this Agreement shall be declared invalid, this Agreement shall be construed as if such invalid word or words, phrase or phrases, sentence or sentences, clause or clauses, provisions or provisions, section or sections or article or articles had not been inserted. If such invalidity is caused by length of time or size of area, or both, the otherwise invalid provision will be considered to be reduced to a period or area which would cure such invalidity.

(j) ***Waivers***. The waiver by either party hereto of a breach or violation of any term or provision of this Agreement shall not operate nor be construed as a waiver of any subsequent breach or violation.

(k) ***Damages; Attorneys' Fees***. Nothing contained herein shall be construed to prevent the Company or the Executive from seeking and recovering from the other damages sustained by either or both of them as a result of its or his breach of any term or provision of this Agreement. Each party shall bear its own costs and attorneys' fees.

(l) ***No Set-off or Mitigation***. The Company's obligation to make the payments provided for in this Agreement and otherwise to perform its obligations hereunder shall not be affected by any set off, counterclaim, recoupment, defense or other claim, right or action which the Company may have against the Executive or others. In the event of any termination of the Executive's employment under this Agreement, he shall be under no obligation to seek other employment or otherwise in any way to mitigate the amount of any payment provided for hereunder.

(m) ***Section Headings***. The article, section and paragraph headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement.

(n) ***No Third Party Beneficiary***. The Related Entities are intended third party beneficiaries of this Agreement. Otherwise, nothing expressed or implied in this Agreement is intended, or shall be construed, to confer upon or give any person other than the Company, the parties hereto and their respective heirs, personal representatives, legal representatives, successors and permitted assigns, any rights or remedies under or by reason of this Agreement.

(o) ***Counterparts***. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together shall constitute one and the same instrument and agreement.

[Signature Page to Amended and Restated Executive Employment Agreement Follows]

IN WITNESS WHEREOF, the undersigned have executed this Agreement on the date first above written.

Company	**Executive**
KalVista Pharmaceuticals, Inc.	/s/ Andreas Maetzel
/s/ T. Andrew Crockett	Andreas Maetzel

Print Name: T. Andrew Crockett

Title: Chief Executive Officer

[Signature Page to Amended and Restated Executive Employment Agreement]

Exhibit B

General Release of Claims

1. Andreas Maetzel ("**Executive**"), for himself and his family, heirs, executors, administrators, legal representatives and their respective successors and assigns, in exchange for the consideration received pursuant to Section [4(e)] [4(g)] of the Amended and Restated Executive Employment Agreement (the "**Severance Benefits**") to which this release is attached as Exhibit B (the "**Employment Agreement**"), does hereby release and forever discharge KalVista Pharmaceuticals, Inc. (the "**Company**"), its subsidiaries, affiliated companies, successors and assigns, and its current or former directors, officers, employees, shareholders or agents in such capacities (collectively with the Company, the "**Released Partie**s") from any and all actions, causes of action, suits, controversies, claims and demands whatsoever, for or by reason of any matter, cause or thing whatsoever, whether known or unknown including, but not limited to, all claims under any applicable laws arising under or in connection with Executive's employment or termination thereof, whether for tort, breach of express or implied employment contract, wrongful discharge, intentional infliction of emotional distress, or defamation or injuries incurred on the job or incurred as a result of loss of employment. Without limiting the generality of the release provided above, Executive expressly waives any and all claims under Age Discrimination in Employment Act ("**ADEA**") that he may have as of the date hereof. Executive further understands that, by signing this General Release of Claims, he is in fact waiving, releasing and forever giving up any claim under the ADEA as well as all other laws within the scope of this paragraph 1 that may have existed on or prior to the date hereof. Notwithstanding anything in this paragraph 1 to the contrary, this General Release of Claims shall not apply to (i) any rights to receive any payments or benefits to which the Executive is entitled under COBRA, (ii) any rights or claims that may arise as a result of events occurring after the date this General Release of Claims is executed, (iii) any indemnification and advancement rights Executive may have as a former employee, officer or director of the Company or its subsidiaries or affiliated companies (including any rights under Section 7 of the Employment Agreement), (iv) any claims for benefits under any directors' and officers' liability policy maintained by the Company or its subsidiaries or affiliated companies in accordance with the terms of such policy, (v) rights to vested benefits under the Company's 401(k) plan, and (vi) any rights as a holder of equity securities of the Company.

2. Executive understands that nothing in this Release shall in any way limit or prohibit Executive from engaging in any Protected Activity. For purposes of this Release, "**Protected Activity**" shall mean filing a charge, complaint, or report with, or otherwise communicating, cooperating, or participating in any investigation or proceeding that may be conducted by, any federal, state or local government agency or commission, including the Securities and Exchange Commission, the Equal Employment Opportunity Commission, the Occupational Safety and Health Administration, and the National Labor Relations Board ("**Government Agencies**"). Executive understands that in connection with such Protected Activity, Executive is permitted to disclose documents or other information as permitted by law, and without giving notice to, or receiving authorization from, the Company. Notwithstanding the foregoing, Executive agrees to take all reasonable precautions to prevent any unauthorized use or disclosure of any information that may constitute Company confidential information to any parties other than the Government Agencies. Executive further understands that "Protected Activity" does not include the disclosure of any Company attorney-client privileged communications. In addition, pursuant to the Defend Trade Secrets Act of 2016, Executive is notified that an individual will not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret that (i) is made in confidence to a federal, state, or local government official (directly or indirectly) or to an attorney solely for the purpose of reporting or investigating a suspected violation of law, or (ii) is made in a complaint or other document filed in a lawsuit or other proceeding, if (and only if) such filing is made under seal. In addition, an individual who files a lawsuit for retaliation by an employer for reporting a suspected violation of law may disclose the trade secret to the individual's attorney and use the trade secret information in the court proceeding, if the individual files any document containing the trade secret under seal and does not disclose the trade secret, except pursuant to court order. This Release does not limit Executive's right to receive an award for information provided to any Government Agencies.

3. Executive represents that he has not filed against the Released Parties any complaints, charges, or lawsuits arising out of his employment, or any other matter arising on or prior to the date of this General Release of Claims, and covenants and agrees that he will never individually or with any person file, or commence the filing of any lawsuits, complaints or proceedings with any governmental agency, or against the Released Parties with respect to any of the matters released by Executive pursuant to paragraph 1 hereof; provided, that nothing herein shall prevent Executive from filing a charge or complaint with the Equal Employment Opportunity Commission ("**EEOC**") or similar federal or state agency or the Executive's ability to participate in any investigation or proceeding conducted by such agency. Nothing in this paragraph shall serve to limit, restrain or impair Executive's rights under paragraph 2 above.

4. Executive acknowledges that, in the absence of his execution of this General Release of Claims, the Severance Benefits would not otherwise be due to him.

5. Executive acknowledges and agrees that he received adequate consideration in exchange for agreeing to the covenants contained in Section 5 of the Employment Agreement and the EIAA (as defined therein), that such covenants remain reasonable and necessary to protect the legitimate business interests of the Company and its affiliates and that he will continue to comply with those covenants.

6. Executive hereby acknowledges that the Company has informed him that he has up to 21 days to sign this General Release of Claims and he may knowingly and voluntarily waive that 21 day period by signing this General Release of Claims earlier. Executive also understands that he shall have seven days following the date on which he signs this General Release of Claims within which to revoke it by providing a written notice of his revocation to the Company.

7. Executive acknowledges and agrees that this General Release of Claims will be governed by and construed and enforced in accordance with the internal laws of the State of Massachusetts applicable to contracts made and to be performed entirely within such State.

8. Executive acknowledges that he has read this General Release of Claims, that he has been advised that he should consult with an attorney before he executes this general release of claims, and that he understands all of its terms and executes it voluntarily and with full knowledge of its significance and the consequences thereof.

9. This General Release of Claims shall become irrevocable on the eighth day following Executive's execution of this General Release of Claims, unless previously revoked in accordance with paragraph 6, above.

Intending to be legally bound hereby, Executive has executed this General Release of Claims on _____, 20__.

Executive

Andreas Maetzel

Exhibit 10.21

AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT

This Amended and Restated Executive Employment Agreement ("**Agreement**") is made and entered into on this 26th day of June, 2019 by and between KalVista Pharmaceuticals, Inc., a Delaware corporation (the "**Company**"), and Edward Feener (hereinafter, the "**Executive**").

RECITALS

WHEREAS, the Executive is currently employed by the Company;

WHEREAS, the terms of Executive's employment with the Company are set forth in an Executive Employment Agreement by and between the Company and the Executive previously entered into on or about the 14th day of March, 2017 (the "**First Agreement**);

WHEREAS, the Company and the Executive now desire to amend and restate the First Agreement;

WHEREAS, the Company and Employee intend that this Agreement shall supersede and replace the First Agreement; and

WHEREAS, the Company desires to continue to employ the Executive and the Executive desires to continue to be employed by the Company on the terms herein described.

NOW, THEREFORE, in consideration of the premises and mutual covenants set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are mutually acknowledged, the Company and the Executive hereby agree as follows:

1. Employment. The Company hereby agrees to employ the Executive and the Executive hereby agrees to serve the Company during the Term of Employment on the terms and conditions set forth herein.

2. Position and Duties of Executive. During the Term of Employment, the Executive shall be employed and serve as the Chief Scientific Officer of the Company, and shall have such duties typically associated with such titles, including, without limitation supervising operations and management of the Company and its subsidiaries. The Executive shall faithfully and diligently perform all services as may be assigned to him by the CEO, and shall exercise such power and authority as may from time to time be delegated to him by the CEO. The Executive shall devote his full business time, attention and efforts to the performance of his duties under this Agreement, render such services to the best of his ability, and use his reasonable best efforts to promote the interests of the Company. The Executive shall not engage in any other business or occupation during the Term of Employment, including, without limitation, any activity that (i) conflicts with the interests of the Company or its subsidiaries, (ii) interferes with the proper and efficient performance of his duties for the Company, or (iii) interferes with the exercise of his judgment in the Company's best interests. Notwithstanding the foregoing or any other provision of this Agreement, it shall not be a breach or violation of this Agreement for the Executive to (w) serve on up to two outside corporate or scientific advisory boards with prior notice to the Company, (x) serve on civic or charitable boards or committees, (y) deliver lectures or fulfill speaking engagements, or (z) manage personal investments, so long as any such activities do not interfere with or detract from the performance of the Executive's responsibilities to the Company in accordance with this Agreement.

3. Compensation and Benefits.

(a) ***Base Salary***. The Executive shall receive a Base Salary at the annual rate of $375,000.00, effective as of May 1, 2019, during the Term of Employment, with such Base Salary payable in installments consistent with the Company's normal payroll schedule, subject to applicable withholding and other taxes. The Base Salary shall be reviewed, at least annually, for merit increases and may, by action and in the discretion of

the Board (or its Compensation Committee), be increased at any time or from time to time, but may not be decreased from the then current Base Salary.

(b) ***Bonuses***. During the Term of Employment, the Executive shall participate in the Company's annual incentive compensation plan, program and/or arrangements applicable to senior-level executives, as established and modified from time to time by the Compensation Committee of the Board in its sole discretion. During the Term of Employment, the Executive shall have a target bonus opportunity under such plan or program equal to 40% of his current Base Salary (the "**Target Bonus**"), based on satisfaction of performance criteria to be established by the Compensation Committee of the Board within the first three months of each fiscal year that begins during the Term of Employment. Payment of annual incentive compensation awards shall be made in the same manner and at the same time that other senior-level executives receive their annual incentive compensation awards, but in no event later than 2 ½ months following the last day of the applicable Company fiscal year, and, except as otherwise provided herein, will be subject to the Executive's continued employment through the last day of the applicable Company fiscal year.

(c) ***Compensation/Benefit Programs***. During the Term of Employment, the Executive shall be entitled to participate in all medical, dental, hospitalization, accidental death and dismemberment, disability, travel and life insurance plans, and any and all other plans as are presently and hereinafter offered by the Company to its executive personnel, including savings, pension, profit-sharing and deferred compensation plans, subject to the general eligibility and participation provisions set forth in such plans.

(d) ***Equity Awards***. During the Term of Employment, the Executive shall be eligible to be granted Equity Awards. The number and type of such Equity Awards, and the terms and conditions thereof, shall be determined by the Board or the Compensation Committee of the Board, in its discretion

(e) ***Vacation***. The Executive shall be entitled to 25 days of paid vacation each calendar year during the Term of Employment, subject to the terms of the Company's then effective vacation or paid time off policy.

(f) ***Reimbursement of Reasonable Business Expenses***. Subject to submission of proper substantiation by the Executive, and subject to such rules and guidelines as the Company may from time to time adopt with respect to the reimbursement of reasonable business expenses of executive personnel, the Company shall reimburse the Executive for all reasonable expenses actually paid or incurred by the Executive during the Term of Employment in the course of and pursuant to the business of the Company. The Executive shall account to the Company in writing for all expenses for which reimbursement is sought and shall supply to the Company copies of all relevant invoices, receipts or other evidence reasonably requested by the Company.

4. Termination.

(a) ***General***. The Term of Employment shall terminate upon the earliest to occur of (i) the Executive's death, (ii) a termination by the Company by reason of the Executive's Disability, (iii) a termination by the Company with or without Cause, or (iv) a termination by Executive with or without Good Reason. Upon any termination of Executive's employment for any reason, except as may otherwise be requested by the Company in writing and agreed upon in writing by Executive, the Executive shall resign from any and all directorships, committee memberships or any other positions Executive holds with the Company or any of its Related Entities.

(b) ***Termination by the Company for Cause***. The Company shall at all times have the right, upon written notice to the Executive, to terminate the Term of Employment for Cause. In no event shall a termination of the Executive's employment for Cause occur unless the Company gives written notice to the Executive in accordance with this Agreement stating with reasonable specificity the events or actions that constitute Cause. In the event that the Term of Employment is terminated by the Company for Cause, Executive shall be entitled only to the Accrued Obligations.

(c) ***Disability***. The Company shall have the option, in accordance with applicable law, to terminate the Term of Employment upon written notice to the Executive at any time during which the Executive is suffering from a Disability. In the event that the Term of Employment is terminated due to the Executive's Disability, the Executive shall be entitled to (i) the Accrued Obligations and (ii) any insurance benefits to which he and his beneficiaries are entitled as a result of his Disability.

(d) ***Death***. In the event that the Term of Employment is terminated due to the Executive's death, the Executive's estate shall be entitled to (i) the Accrued Obligations and (ii) any insurance benefits to which he and his beneficiaries are entitled as a result of his death.

(e) ***Termination Without Cause outside of a Change in Control of the Company or Resignation With Good Reason outside of a Change in Control of the Company***. The Company may terminate the Term of Employment without Cause, and the Executive may terminate the Term of Employment for Good Reason, at any time upon written notice. If the Term of Employment is terminated by the Company without Cause (other than due to the Executive's death or Disability) or by the Executive for Good Reason, in either case prior to the date of a Change in Control or more than two years after a Change in Control, the Executive shall be entitled to the following:

(i) The Accrued Obligations;

(ii) A lump sum payment equal to 12 months of Executive's then-current Base Salary;

(iii) Provided that the Executive timely elects continued coverage under COBRA, the Company will reimburse the Executive for the monthly COBRA cost of continued health and dental coverage of the Executive and his qualified beneficiaries paid by the Executive under the health and dental plans of the Company, less the amount that the Executive would be required to contribute for health and dental coverage if the Executive were an active employee of the Company, for 12 months (or, if less, for the duration that such COBRA coverage is available to Executive). Notwithstanding the above, if the Company determines in its sole discretion that it cannot provide the COBRA benefits described herein without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), the Company shall in lieu thereof provide Executive with a taxable lump sum payment in an amount equal to the then-unreimbursed monthly COBRA premiums.

(f) ***Termination by Executive Without Good Reason***. The Executive may terminate his employment without Good Reason by providing the Company 30 days' written notice of such termination. In the event of a termination of employment by the Executive under this Section 4(f), the Executive shall be entitled only to the Accrued Obligations. In the event of termination of the Executive's employment under this Section 4(f), the Company may, in its sole and absolute discretion, by written notice, accelerate such date of termination and still have it treated as a termination without Good Reason.

(g) ***Termination Without Cause in connection with a Change in Control of the Company or Resignation With Good Reason in connection with a Change in Control of the Company***. If the Executive's employment is terminated by the Company (or any entity to which the obligations and benefits under this Agreement have been assigned pursuant to Section 9(b)) without Cause or by the Executive for Good Reason, in either case during the two year period immediately following a Change in Control, then the Executive shall be entitled to the following:

(i) The Accrued Obligations;

(ii) A lump sum payment equal to 15 months of Executive's then-current Base Salary;

(iii) A lump sum payment equal to the Executive's full Target Bonus for the fiscal year in which the Termination Date occurs;

(iv) Provided that the Executive timely elects continued coverage under COBRA, the Company will reimburse the Executive for the monthly COBRA cost of continued health and dental coverage of the Executive and his qualified beneficiaries paid by the Executive under the health and dental plans of the Company, less the amount that the Executive would be required to contribute for health and dental coverage if the Executive were an active employee of the Company, for 15 months (or, if less, for the duration that such COBRA coverage is available to Executive). Notwithstanding the above, if the Company determines in its sole discretion that it cannot provide the COBRA benefits described herein without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), the Company shall in lieu thereof provide Executive with a taxable lump sum payment in an amount equal to the then-unreimbursed monthly COBRA premiums.

(v) All then-unvested Equity Awards will vest in full.

(h) ***Release***. All rights, payments and benefits due to the Executive under this Section 4 (other than the Accrued Obligations) shall be conditioned on the Executive's execution of a general release of claims against the Company and its affiliates substantially in the form attached hereto as Exhibit B (the "**Release**") and on that Release becoming irrevocable within 60 days following the Termination Date. The severance described in this Section 4 (other than Accrued Obligations) shall be paid no later than the first business day following the sixtieth (60th) day following the termination of employment of Executive and in compliance with the timeframe required under Section 409A as set forth herein, and the first payment will include the payments due and owing prior to that payment date but for the application of this sentence. If the Straddle Period (as defined below) spans two (2) calendar years, then the cash payments under this Section 4 (other than Accrued Obligations) shall first be made on the first business day in the second calendar year that occurs after the expiration of the sixty (60)-day period in which the Release must be delivered and effective, as described in this Section 4. The "**Straddle Period**" shall mean the sixty (60)-day period following a termination of employment in which the Release is to be executed and become irrevocable pursuant to this Section 4.

(i) ***Section 280G Certain Reductions of Payments by the Company***.

(1) Anything in this Agreement to the contrary notwithstanding, in the event it shall be determined that any payment or distribution by the Company to or for the benefit of the Executive, whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise (a "**Payment**"), would be nondeductible by the Company for Federal income tax purposes because of Section 280G of the Code, then the aggregate present value of amounts payable or distributable to or for the benefit of the Executive pursuant to this Agreement (such payments or distributions pursuant to this Agreement are hereinafter referred to as "**Agreement Payments**") shall be reduced to the Reduced Amount. The "**Reduced Amount**" shall be an amount expressed in present value that avoids any Payment being nondeductible by the Company because of Section 280G of the Code. To the extent necessary to avoid imposition of the Excise Tax, the amounts payable or benefits to be provided to the Executive shall be reduced such that the reduction of compensation to be provided to the Executive is minimized. In applying this principle, the reduction shall be made in a manner consistent with the requirements of Section 409A of the Code, and where two economically equivalent amounts are subject to reduction but payable at different times, such amounts shall be reduced on a pro rata basis (but not below zero). Anything to the contrary notwithstanding, if the Reduced Amount is zero and it is determined further that any Payment which is not an Agreement Payment would nevertheless be nondeductible by the Company for Federal income tax purposes because of Section 280G of the Code, then the aggregate present value of Payments which are not Agreement Payments shall also be reduced (but not below zero) to an amount expressed in present value which maximizes the aggregate present value of Payments without causing any Payment to be nondeductible by the Company because of Section 280G of the Code. If a reduction of any Payment is required pursuant to this Section 4(i), such reduction shall occur to the amounts in the order that results in the greatest economic present value of all payments and benefits actually made or provided to the Executive. For purposes of this Section 4(i), present value shall be determined in accordance with Section 280G(d)(4) of the Code.

(2) All determinations required to be made under this Section 4(i) shall be made by a tax or compensation consulting firm of national reputation selected by the Company (the "**Consulting Firm**"), which shall provide detailed supporting calculations both to the Company and the Executive within 20 business days of the date of termination or such earlier time as is requested by the Company and an opinion to the Executive that he has substantial authority not to report any excise tax on his Federal income tax return with respect to any Payments. Any such determination by the Consulting Firm shall be binding upon the Company and the Executive. Within five business days thereafter, the Company shall pay to or distribute to or for the benefit of the Executive such amounts as are then due to the Executive under this Agreement. All fees and expenses of the Consulting Firm incurred in connection with the determinations contemplated by this Section 4(i) shall be borne by the Company.

(3) As a result of the uncertainty in the application of Section 280G of the Code at the time of the initial determination by the Consulting Firm hereunder, it is possible that Payments will have been made by the Company which should not have been made ("**Overpayment**") or that additional Payments which will not have been made by the Company could have been made ("**Underpayment**"), in each case, consistent with the calculations required to be made hereunder. In the event that the Consulting Firm, based upon the assertion of a deficiency by the Internal Revenue Service against the Executive which the Consulting Firm believes has a high probability of success, determines that an Overpayment has been made, any such Overpayment paid or distributed by the Company to or for the benefit of the Executive shall be promptly repaid to the Company by the Executive. In the event that the Consulting Firm, based upon controlling precedent or other substantial authority, determines that an Underpayment has occurred, any such Underpayment shall be promptly paid by the Company to or for the benefit of the Executive together with interest at the applicable federal rate provided for in Section 7872(f)(2) of the Code.

(j) ***Cooperation***. Following the Term of Employment, the Executive shall give his assistance and cooperation willingly, upon reasonable advance notice with due consideration for his other business or personal commitments, in any matter relating to his position with the Company, or his expertise or experience as the Company may reasonably request, including his attendance and truthful testimony where deemed appropriate by the Company, with respect to any investigation or the Company's defense or prosecution of any existing or future claims or litigations or other proceedings relating to matters in which he was involved or potentially had knowledge by virtue of his employment with the Company. In no event shall his cooperation materially interfere with his services for a subsequent employer or other similar service recipient. To the extent permitted by law, the Company agrees that (i) it shall promptly reimburse the Executive for his reasonable and documented expenses in connection with his rendering assistance and/or cooperation under this Section 4(j) upon his presentation of documentation for such expenses and (ii) the Executive shall be reasonably compensated for any continued material services as required under this Section 4(j).

(k) ***Return of Company Property***. Following the Termination Date, the Executive or his personal representative shall return all Company property in his possession, including but not limited to all computer equipment (hardware and software), telephones, facsimile machines, cell phones and other communication devices, credit cards, office keys, security access cards, badges, identification cards and all copies (including drafts) of any documentation or information (however stored) relating to the business of the Company, its customers and clients or its prospective customers and clients.

(l) ***Compliance with Section 409A***.

(i) ***General***. It is the intention of both the Company and the Executive that the benefits and rights to which the Executive could be entitled pursuant to this Agreement comply with Section 409A of the Code and the Treasury Regulations and other guidance promulgated or issued thereunder ("**Section 409A**"), to the extent that the requirements of Section 409A are applicable thereto, and the provisions of this Agreement shall be construed in a manner consistent with that intention.

(ii) ***Distributions on Account of Separation from Service***. If and to the extent required to comply with Section 409A, no payment or benefit required to be paid under this Agreement on account of termination of the Executive's employment shall be made unless and until the Executive incurs a "separation from service" within the meaning of Section 409A.

(iii) ***Six Month Delay for Specified Employees***. If the Executive is a "specified employee" (within the meaning of Section 409A(a)(2)(B)(i) of the Code), then no payment or benefit that is payable on account of the Executive's "separation from service", as that term is defined for purposes of Section 409A, shall be made before the date that is six months after the Executive's "separation from service" (or, if earlier, the date of the Executive's death) if and to the extent that such payment or benefit constitutes deferred compensation (or may be nonqualified deferred compensation) under Section 409A and such deferral is required to comply with the requirements of Section 409A. Any payment or benefit delayed by reason of the prior sentence shall be paid out or provided in a single lump sum at the end of such required delay period in order to catch up to the original payment schedule.

(iv) ***Treatment of Each Installment as a Separate Payment***. For purposes of applying the provisions of Section 409A to this Agreement, each separately identified amount to which the Executive is entitled under this Agreement shall be treated as a separate payment. In addition, any series of installment payments under this Agreement shall be treated as a right to a series of separate payments.

(v) ***Taxable Reimbursements and In-Kind Benefits***.

(A) Any reimbursements by the Company to the Executive of any eligible expenses under this Agreement that are not excludable from the Executive's income for Federal income tax purposes (the "**Taxable Reimbursements**") shall be made by no later than the last day of the taxable year of the Executive following the year in which the expense was incurred.

(B) The amount of any Taxable Reimbursements, and the value of any in-kind benefits to be provided to the Executive, during any taxable year of the Executive shall not affect the expenses eligible for reimbursement, or in-kind benefits to be provided, in any other taxable year of the Executive.

(C) The right to Taxable Reimbursement, or in-kind benefits, shall not be subject to liquidation or exchange for another benefit.

(vi) ***Section 409A Compliance***. Notwithstanding the foregoing, the Company does not make any representation to the Executive that the payments or benefits provided under this Agreement are exempt from, or satisfy, the requirements of Section 409A, and the Company shall have no liability or other obligation to indemnify or hold harmless the Executive or any beneficiary of the Executive for any tax, additional tax, interest or penalties that the Executive or any beneficiary of the Executive may incur in the event that any provision of this Agreement, or any amendment or modification thereof, or any other action taken with respect thereto, is deemed to violate any of the requirements of Section 409A.

5. Restrictive Covenants.

(a) ***Confidential Information***. The Executive shall execute and agree to be bound by the terms of the Company's Employee Invention Assignment, Confidentiality and Non-Competition Agreement (the "***EIIA***") as provided therein.

(b) ***Insider Trading Policies***. Executive agrees that he shall comply with and be bound by the Company's insider trading policies with respect to the securities of the Company as now in effect or hereafter adopted or amended.

(c) ***Clawback Provisions***. All incentive and equity awards and payments shall be subject to the clawback policy of the Company, as now in effect or hereafter adopted or amended, and all applicable laws and rules and regulations of the stock exchanges and public market on which the securities of the Company are traded.

(d) ***Injunction***. It is recognized and hereby acknowledged by the parties hereto that a breach by the Executive of any of the covenants contained in this Section 5 or the EIIA may cause irreparable harm and damage to the Company, and its Related Entities, the monetary amount of which may be virtually impossible to ascertain. As a result, the Executive recognizes and hereby acknowledges that the Company and its Related Entities shall be entitled to seek an injunction from any court of competent jurisdiction enjoining and restraining any violation of any or all of the covenants contained in this Section 5 or the EIIA by the Executive or any of his affiliates, associates, partners or agents, either directly or indirectly, and that such right to injunction shall be cumulative and in addition to whatever other remedies the Company may possess.

6. Representations and Warranties of Executive. The Executive represents and warrants to the Company that:

(a) The Executive's employment will not conflict with or result in his breach of any agreement to which he is a party or otherwise may be bound;

(b) The Executive has not violated, and in connection with his employment with the Company will not violate, any non-solicitation, non-competition or other similar covenant or agreement of a prior employer by which he is or may be bound; and

(c) In connection with Executive's employment with the Company, he will not use any confidential or proprietary information that he may have obtained in connection with employment with any prior employer; and

7. Indemnification. Subject to limitations imposed by law, the Company shall indemnify and hold harmless the Executive to the fullest extent permitted by law from and against any and all claims, damages, expenses (including attorneys' fees), judgments, penalties, fines, settlements, and all other liabilities incurred or paid by him in connection with the investigation, defense, prosecution, settlement or appeal of any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative and to which the Executive was or is a party or is threatened to be made a party by reason of the fact that the Executive is or was an officer, employee or agent of the Company, or by reason of anything done or not done by the Executive in any such capacity or capacities, provided that the Executive acted in good faith, in a manner that was not grossly negligent or constituted willful misconduct and in a manner he reasonably believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful.

8. Definitions. When used in this Agreement, the following terms shall have the following meanings:

(a) ***Accrued Obligations***" means:

(i) all accrued but unpaid Base Salary through the end of the Term of Employment;

(ii) any unpaid or unreimbursed expenses incurred in accordance with Company policy to the extent incurred during the Term of Employment;

(iii) any accrued but unpaid benefits provided under the Company's employee benefit plans, subject to and in accordance with the terms of those plans;

(iv) any unpaid Bonus with respect to any completed fiscal year that has ended on or prior to the end of the Term of Employment; and

(v) any accrued but unused vacation pay.

(b) "***Base Salary***" means the salary provided for in Section 3(a) hereof or any increased salary granted to Executive pursuant to Section 3(a) hereof.

(c) "***Beneficial Owner***" and "***Beneficial Ownership***" shall have the meaning ascribed to such terms in Rule 13d-3 promulgated under the Securities Exchange Act of 1934, as amended.

(d) "***Board***" means the Board of Directors of the Company.

(e) "***Bonus***" means any bonus payable to the Executive pursuant to Section 3(b) hereof.

(f) "***Cause***" means any of the following:

(i) Executive's conviction of or plea of nolo contendere to a felony or to any crime involving moral turpitude;

(ii) willful misconduct or gross negligence by the Executive resulting, in either case, in material economic or reputational harm to the Company or any of Related Entities;

(iii) a willful failure by the Executive to carry out the reasonable and lawful directions of the CEO and failure by the Executive to remedy the failure within thirty (30) days after receipt of written notice of same, by the CEO;

(iv) fraud, embezzlement, theft or dishonesty of a material nature by the Executive against the Company or any Related Entity, or a willful material violation by the Executive of a policy or procedure of the Company or any Related Entity, resulting, in any case, in material, reputational or economic harm to the Company or any Related Entity; or

(v) a willful material breach by the Executive of this Agreement and failure by the Executive to remedy the material breach within 30 days after receipt of written notice of same, by the CEO.

(g) "***CEO***" means the Chief Executive Officer of the Company.

(h) "***Change in Control***" means the occurrence of any of the following events: (i) any Person becomes the Beneficial Owner, directly or indirectly, of securities of the Company representing more than fifty percent (50%) of the total voting power represented by the Company's then-outstanding voting securities; provided, however, that for purposes of this subclause (i) the acquisition of additional securities by any one Person who is considered to own more than fifty percent (50%) of the total voting power of the securities of the Company will not be considered a Change in Control; (ii) the consummation of the sale or disposition by the Company of all or substantially all of the Company's assets; (iii) the consummation of a merger or consolidation of the Company with any other corporation, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or its parent) at least fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity or its parent outstanding immediately after such merger or consolidation; or (iv) a change in the effective control of the Company that occurs on the date that a majority of members of the Board is replaced during any twelve (12) month period by members of the Board whose appointment or election is not endorsed by a majority of the members of the Board prior to the date of the appointment or election. For purpose of this subclause (iv), if any Person is considered to be in effective control of the Company, the acquisition of additional control of the

Company by the same Person will not be considered a Change in Control. For purposes of this definition, Persons will be considered to be acting as a group if they are owners of a corporation that enters into a merger, consolidation, purchase or acquisition of stock, or similar business transaction with the Company.

(i) "***COBRA***" means the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended from time to time.

(j) "***Code***" means the Internal Revenue Code of 1986, as amended.

(k) "***Commencement Date***" means the date of this Agreement.

(l) "***Disability***" means the Executive's inability, or failure, to perform the essential functions of his position, with or without reasonable accommodation, for any period of six months or more in any 12 month period, by reason of any medically determinable physical or mental impairment.

(m) "***Equity Awards***" means any stock options, restricted stock, restricted stock units, stock appreciation rights, phantom stock or other equity based awards granted by the Company to the Executive.

(n) "***Excise Tax***" means any excise tax imposed by Section 4999 of the Code, together with any interest and penalties imposed with respect thereto, or any interest or penalties are incurred by the Executive with respect to any such excise tax.

(o) "***Good Reason***" means the occurrence of any of the following events or conditions, without the Executive's express written consent:

(i) a material diminution in the Executive's authority, duties, or responsibilities, provided, however, that the mere acquisition or merger of the Company by itself shall not constitute a material diminution in the Executive's authority, duties, or responsibilities;

(ii) a material reduction by the Company in the Executive's annual Base Salary (which for purposes hereof is deemed to constitute a reduction of greater than 10%, unless such reduction applies as part of a salary reduction program and such program includes similar reductions to all of the Executive's direct reports); or

(iii) the relocation of the Executive's principal place of employment to a location more than 50 miles from the Executive's principal place of employment immediately prior to the Executive's termination.

With respect to each of subsection (i), (ii) and (iii) above, the Executive must provide notice to the Company of the condition giving rise to "Good Reason" within 30 days of the initial existence of such condition, and the Company will have 30 days following such notice to remedy such condition. The Executive must resign the Executive's employment no later than 30 days following the Company's failure to cure the Good Reason or written notice to the Executive that it will decline to do so.

(p) "***Group***" shall have the meaning ascribed to such term in Section 13(d) of the Securities Exchange Act of 1934.

(q) "***Person***" shall have the meaning ascribed to such term in Section 3(a)(9) of the Securities Exchange Act of 1934 and used in Sections 13(d) and 14(d) thereof.

(r) "***Related Entity***" means any Person controlling, controlled by or under common control with the Company or any of its subsidiaries. For this purpose, the terms "controlling," "controlled by" and "under common control with" mean the possession, directly or indirectly, of the power to direct or cause the direction of

the management and policies of a Person, whether through the ownership of voting securities, as trustee or executor, by contract or otherwise, including (without limitation) the ownership, directly or indirectly, of securities having the power to elect a majority of the board of directors or similar body governing the affairs of such Person.

(s) "***Target Bonus***" has the meaning described in Section 3(b).

(t) "***Term of Employment***" means the period during which the Executive shall be employed by the Company pursuant to the terms of this Agreement, which period shall begin on the Commencement Date and continue until terminated in accordance with Section 4 hereof.

(u) "***Termination Date***" means the date on which the Term of Employment ends.

9. Miscellaneous Provisions.

(a) ***Taxes***. All payments or transfers of property made by the Company to the Executive or his estate or beneficiaries shall be subject to the withholding of such amounts relating to taxes as the Company may reasonably determine it should withhold pursuant to any applicable law or regulation.

(b) ***Assignment***. The Company shall have the right to assign this Agreement and its rights and obligations hereunder in whole, but not in part, to any corporation or other entity with or into which the Company may hereafter merge or consolidate or to which the Company may transfer all or substantially all of its assets, if in any such case said corporation or other entity shall by operation of law or expressly in writing assume all obligations of the Company hereunder as fully as if it had been originally made a party hereto, but may not otherwise assign this Agreement or its rights and obligations hereunder. The Executive may not assign or transfer this Agreement or any rights or obligations hereunder.

(c) ***Governing Law***. Except as expressly set forth herein, this letter agreement and the rights and obligations of the parties hereto shall be construed in accordance with the laws of the Commonwealth of Massachusetts, without giving effect to the principles of conflict of laws.

(d) ***Arbitration and Class Action Waiver***. Executive and the Company agree to submit to mandatory binding arbitration any and all claims arising out of or related to Executive's employment with the Company and the termination thereof, including, but not limited to, claims for unpaid wages, wrongful termination, torts, stock or stock options or other ownership interest in the Company, and/or discrimination (including harassment), except as set forth below, based upon any federal, state or local ordinance, statute, regulation or constitutional provision except that each party may, at its, his or her option, seek injunctive relief in court related to the improper use, disclosure or misappropriation of a party's private, proprietary, confidential or trade secret information (collectively, "**Arbitrable Claims**"). Further, to the fullest extent permitted by law, Executive and the Company agree that no class or collective actions can be asserted in arbitration or otherwise. All claims, whether in arbitration or otherwise, must be brought solely in Executive's or the Company's individual capacity, and not as a plaintiff or class member in any purported class or collective proceeding.

THE PARTIES HEREBY WAIVE ANY RIGHTS THEY MAY HAVE TO TRIAL BY JURY IN REGARD TO ARBITRABLE CLAIMS. THE PARTIES FURTHER WAIVE ANY RIGHTS THEY MAY HAVE TO PURSUE OR PARTICIPATE IN A CLASS OR COLLECTIVE ACTION PERTAINING TO ANY ARBITRABLE CLAIMS BETWEEN YOU AND THE COMPANY.

Notwithstanding anything to the contrary herein, nothing in this Arbitration and Class Action Waiver section restricts Executive's right to pursue claims in court (a) on a representative action basis under applicable law or (b) for any alleged sexual harassment or any alleged unlawful discriminatory practices related to sexual harassment.

This Agreement does not restrict Executive's right to file administrative claims Executive may bring before any government agency where, as a matter of law, the parties may not restrict the employee's ability to file such claims (including, but not limited to, the National Labor Relations Board, the Equal Employment Opportunity Commission and the Department of Labor). However, the parties agree that, to the fullest extent permitted by law, arbitration shall be the exclusive remedy for the subject matter of such administrative claims. The arbitration shall be conducted in Boston, Massachusetts through JAMS before a single neutral arbitrator, in accordance with the JAMS employment arbitration rules then in effect. The JAMS rules may be found and reviewed at http://www.jamsadr.com/rules-employment-arbitration. If Executive is unable to access these rules, please let the Company know and Executive will be provided with a hardcopy. The arbitrator shall issue a written decision that contains the essential findings and conclusions on which the decision is based. Executive and the Company agree that this Arbitration and Class Action Waiver Provision shall be governed by the Federal Arbitration Act. Should any portion of this provision be found unenforceable, it shall be severed and the remaining provisions shall remain in full force and effect.

(e) ***Entire Agreement***. This Agreement, together with the exhibit attached hereto, constitutes the entire agreement between the patties hereto with respect to the subject matter hereof and, upon its effectiveness, shall supersede all prior agreements, understandings and arrangements, both oral and written, between the Executive and the Company (or any of its Related Entities) with respect to such subject matter. This Agreement may not be modified in any way unless by a written instrument signed by both the Company and the Executive.

(f) ***Notices***. All notices required or permitted to be given hereunder shall be in writing and shall be personally delivered by courier, sent by registered or certified mail, return receipt requested or sent by confirmed facsimile transmission addressed as set forth herein. Notices personally delivered, sent by facsimile or sent by overnight courier shall be deemed given on the date of delivery and notices mailed in accordance with the foregoing shall be deemed given upon receipt by the addressee, as evidenced by the return receipt thereof. Notice shall be sent (i) if to the Company, addressed to the Company's headquarters, Attention: the Company's CEO, and (ii) if to the Executive, to his address as reflected on the payroll records of the Company, or to such other address as either party shall request by notice to the other in accordance with this provision.

(g) ***Benefits; Binding Effect***. This Agreement shall be for the benefit of and binding upon the parties hereto and their respective heirs, personal representatives, legal representatives, successors and, where permitted and applicable, assigns, including, without limitation, any successor to the Company, whether by merger, consolidation, sale of stock, sale of assets or otherwise.

(h) ***Right to Consult with Counsel***. The Executive acknowledges having read and considered all of the provisions of this Agreement carefully, and having had the opportunity to consult with counsel of his own choosing, and, given this, the Executive agrees that the obligations created hereby are not unreasonable.

(i) ***Severability***. The invalidity of any one or more of the words, phrases, sentences, clauses, provisions, sections or articles contained in this Agreement shall not affect the enforceability of the remaining portions of this Agreement or any part thereof, all of which are inserted conditionally on their being valid in law, and, in the event that any one or more of the words, phrases, sentences, clauses, provisions, sections or articles contained in this Agreement shall be declared invalid, this Agreement shall be construed as if such invalid word or words, phrase or phrases, sentence or sentences, clause or clauses, provisions or provisions, section or sections or article or articles had not been inserted. If such invalidity is caused by length of time or size of area, or both, the otherwise invalid provision will be considered to be reduced to a period or area which would cure such invalidity.

(j) ***Waivers***. The waiver by either party hereto of a breach or violation of any term or provision of this Agreement shall not operate nor be construed as a waiver of any subsequent breach or violation.

(k) ***Damages; Attorneys' Fees***. Nothing contained herein shall be construed to prevent the Company or the Executive from seeking and recovering from the other damages sustained by either or both of them as a result of its or his breach of any term or provision of this Agreement. Each party shall bear its own costs and attorneys' fees.

(l) ***No Set-off or Mitigation***. The Company's obligation to make the payments provided for in this Agreement and otherwise to perform its obligations hereunder shall not be affected by any set off, counterclaim, recoupment, defense or other claim, right or action which the Company may have against the Executive or others. In the event of any termination of the Executive's employment under this Agreement, he shall be under no obligation to seek other employment or otherwise in any way to mitigate the amount of any payment provided for hereunder.

(m) ***Section Headings***. The article, section and paragraph headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement.

(n) ***No Third Party Beneficiary***. The Related Entities are intended third party beneficiaries of this Agreement. Otherwise, nothing expressed or implied in this Agreement is intended, or shall be construed, to confer upon or give any person other than the Company, the parties hereto and their respective heirs, personal representatives, legal representatives, successors and permitted assigns, any rights or remedies under or by reason of this Agreement.

(o) ***Counterparts***. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together shall constitute one and the same instrument and agreement.

[Signature Page to Amended and Restated Executive Employment Agreement Follows]

IN WITNESS WHEREOF, the undersigned have executed this Agreement on the date first above written.

Company	**Executive**
KalVista Pharmaceuticals, Inc.	/s/ Edward Feener
/s/ T. Andrew Crockett	Edward Feener

Print Name: T. Andrew Crockett

Title: Chief Executive Officer

[Signature Page to Amended and Restated Executive Employment Agreement]

Exhibit B

General Release of Claims

1. Edward Feener ("**Executive**"), for himself and his family, heirs, executors, administrators, legal representatives and their respective successors and assigns, in exchange for the consideration received pursuant to Section [4(e)] [4(g)] of the Amended and Restated Executive Employment Agreement (the "**Severance Benefits**") to which this release is attached as Exhibit B (the "**Employment Agreement**"), does hereby release and forever discharge KalVista Pharmaceuticals, Inc. (the "**Company**"), its subsidiaries, affiliated companies, successors and assigns, and its current or former directors, officers, employees, shareholders or agents in such capacities (collectively with the Company, the "**Released Partie**s") from any and all actions, causes of action, suits, controversies, claims and demands whatsoever, for or by reason of any matter, cause or thing whatsoever, whether known or unknown including, but not limited to, all claims under any applicable laws arising under or in connection with Executive's employment or termination thereof, whether for tort, breach of express or implied employment contract, wrongful discharge, intentional infliction of emotional distress, or defamation or injuries incurred on the job or incurred as a result of loss of employment. Without limiting the generality of the release provided above, Executive expressly waives any and all claims under Age Discrimination in Employment Act ("**ADEA**") that he may have as of the date hereof. Executive further understands that, by signing this General Release of Claims, he is in fact waiving, releasing and forever giving up any claim under the ADEA as well as all other laws within the scope of this paragraph 1 that may have existed on or prior to the date hereof. Notwithstanding anything in this paragraph 1 to the contrary, this General Release of Claims shall not apply to (i) any rights to receive any payments or benefits to which the Executive is entitled under COBRA, (ii) any rights or claims that may arise as a result of events occurring after the date this General Release of Claims is executed, (iii) any indemnification and advancement rights Executive may have as a former employee, officer or director of the Company or its subsidiaries or affiliated companies (including any rights under Section 7 of the Employment Agreement), (iv) any claims for benefits under any directors' and officers' liability policy maintained by the Company or its subsidiaries or affiliated companies in accordance with the terms of such policy, (v) rights to vested benefits under the Company's 401(k) plan, and (vi) any rights as a holder of equity securities of the Company.

2. Executive understands that nothing in this Release shall in any way limit or prohibit Executive from engaging in any Protected Activity. For purposes of this Release, "**Protected Activity**" shall mean filing a charge, complaint, or report with, or otherwise communicating, cooperating, or participating in any investigation or proceeding that may be conducted by, any federal, state or local government agency or commission, including the Securities and Exchange Commission, the Equal Employment Opportunity Commission, the Occupational Safety and Health Administration, and the National Labor Relations Board ("**Government Agencies**"). Executive understands that in connection with such Protected Activity, Executive is permitted to disclose documents or other information as permitted by law, and without giving notice to, or receiving authorization from, the Company. Notwithstanding the foregoing, Executive agrees to take all reasonable precautions to prevent any unauthorized use or disclosure of any information that may constitute Company confidential information to any parties other than the Government Agencies. Executive further understands that "Protected Activity" does not include the disclosure of any Company attorney-client privileged communications. In addition, pursuant to the Defend Trade Secrets Act of 2016, Executive is notified that an individual will not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret that (i) is made in confidence to a federal, state, or local government official (directly or indirectly) or to an attorney solely for the purpose of reporting or investigating a suspected violation of law, or (ii) is made in a complaint or other document filed in a lawsuit or other proceeding, if (and only if) such filing is made under seal. In addition, an individual who files a lawsuit for retaliation by an employer for reporting a suspected violation of law may disclose the trade secret to the individual's attorney and use the trade secret information in the court proceeding, if the individual files any document containing the trade secret under seal and does not disclose the trade secret, except pursuant to court order. This Release does not limit Executive's right to receive an award for information provided to any Government Agencies.

3. Executive represents that he has not filed against the Released Parties any complaints, charges, or lawsuits arising out of his employment, or any other matter arising on or prior to the date of this General Release of Claims, and covenants and agrees that he will never individually or with any person file, or commence the filing of any lawsuits, complaints or proceedings with any governmental agency, or against the Released Parties with respect to any of the matters released by Executive pursuant to paragraph 1 hereof; provided, that nothing herein shall prevent Executive from filing a charge or complaint with the Equal Employment Opportunity Commission ("**EEOC**") or similar federal or state agency or the Executive's ability to participate in any investigation or proceeding conducted by such agency. Nothing in this paragraph shall serve to limit, restrain or impair Executive's rights under paragraph 2 above.

4. Executive acknowledges that, in the absence of his execution of this General Release of Claims, the Severance Benefits would not otherwise be due to him.

5. Executive acknowledges and agrees that he received adequate consideration in exchange for agreeing to the covenants contained in Section 5 of the Employment Agreement and the EIAA (as defined therein), that such covenants remain reasonable and necessary to protect the legitimate business interests of the Company and its affiliates and that he will continue to comply with those covenants.

6. Executive hereby acknowledges that the Company has informed him that he has up to 21 days to sign this General Release of Claims and he may knowingly and voluntarily waive that 21 day period by signing this General Release of Claims earlier. Executive also understands that he shall have seven days following the date on which he signs this General Release of Claims within which to revoke it by providing a written notice of his revocation to the Company.

7. Executive acknowledges and agrees that this General Release of Claims will be governed by and construed and enforced in accordance with the internal laws of the State of Massachusetts applicable to contracts made and to be performed entirely within such State.

8. Executive acknowledges that he has read this General Release of Claims, that he has been advised that he should consult with an attorney before he executes this general release of claims, and that he understands all of its terms and executes it voluntarily and with full knowledge of its significance and the consequences thereof.

9. This General Release of Claims shall become irrevocable on the eighth day following Executive's execution of this General Release of Claims, unless previously revoked in accordance with paragraph 6, above.

Intending to be legally bound hereby, Executive has executed this General Release of Claims on _____, 20__.

Executive

Edward Feener

Exhibit 10.22

EXECUTIVE EMPLOYMENT AGREEMENT

This Executive Employment Agreement ("**Agreement**") is made and entered into on this 26th day of June, 2019 by and between KalVista Pharmaceuticals, Inc., a Delaware corporation (the "**Company**"), and Michael Smith (hereinafter, the "**Executive**").

RECITALS

WHEREAS, the Executive is currently employed by the Company;

WHEREAS, the terms of Executive's employment with the Company are set forth in an offer letter by and between the Company and the Executive previously entered into on the 8th day of January, 2016 (the "**First Agreement**);

WHEREAS, the Company and the Executive now desire to supersede and replace the First Agreement;

WHEREAS, the Company and Employee intend that this Agreement shall supersede and replace the First Agreement; and

WHEREAS, the Company desires to continue to employ the Executive and the Executive desires to continue to be employed by the Company on the terms herein described.

NOW, THEREFORE, in consideration of the premises and mutual covenants set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are mutually acknowledged, the Company and the Executive hereby agree as follows:

1. Employment. The Company hereby agrees to employ the Executive and the Executive hereby agrees to serve the Company during the Term of Employment on the terms and conditions set forth herein.

2. Position and Duties of Executive. During the Term of Employment, the Executive shall be employed and serve as the SVP Development of the Company, and shall have such duties typically associated with such titles, including, without limitation supervising operations and management of the Company and its subsidiaries. The Executive shall faithfully and diligently perform all services as may be assigned to him by the CEO, and shall exercise such power and authority as may from time to time be delegated to him by the CEO. The Executive shall devote his full business time, attention and efforts to the performance of his duties under this Agreement, render such services to the best of his ability, and use his reasonable best efforts to promote the interests of the Company. The Executive shall not engage in any other business or occupation during the Term of Employment, including, without limitation, any activity that (i) conflicts with the interests of the Company or its subsidiaries, (ii) interferes with the proper and efficient performance of his duties for the Company, or (iii) interferes with the exercise of his judgment in the Company's best interests. Notwithstanding the foregoing or any other provision of this Agreement, it shall not be a breach or violation of this Agreement for the Executive to (x) serve on civic or charitable boards or committees, (y) deliver lectures or fulfill speaking engagements, or (z) manage personal investments, so long as any such activities do not interfere with or detract from the performance of the Executive's responsibilities to the Company in accordance with this Agreement.

3. Compensation and Benefits.

(a) ***Base Salary***. The Executive shall receive a Base Salary at the annual rate of $290,000.00, effective as of May 1, 2019, during the Term of Employment, with such Base Salary payable in installments consistent with the Company's normal payroll schedule, subject to applicable withholding and other taxes. The Base Salary shall be reviewed, at least annually.

(b) ***Bonuses***. During the Term of Employment, the Executive shall participate in the Company's annual incentive compensation plan, program and/or arrangements applicable to senior-level executives, as established and modified from time to time by the Compensation Committee of the Board in its sole discretion. During the Term of Employment, the Executive shall have a target bonus opportunity under such plan or program equal to 35% of his current Base Salary (the "**Target Bonus**"), based on satisfaction of performance criteria to be established by the Compensation Committee of the Board within the first three months of each fiscal year that begins during the Term of Employment. Payment of annual incentive compensation awards shall be made in the same manner and at the same time that other senior-level executives receive their annual incentive compensation awards, but in no event later than 2 ½ months following the last day of the applicable Company fiscal year, and, except as otherwise provided herein, will be subject to the Executive's continued employment through the last day of the applicable Company fiscal year.

(c) ***Compensation/Benefit Programs***. During the Term of Employment, the Executive shall be entitled to participate in all medical, dental, hospitalization, accidental death and dismemberment, disability, travel and life insurance plans, and any and all other plans as are presently and hereinafter offered by the Company to its executive personnel, including savings, pension, profit-sharing and deferred compensation plans, subject to the general eligibility and participation provisions set forth in such plans.

(d) ***Equity Awards***. During the Term of Employment, the Executive shall be eligible to be granted Equity Awards. The number and type of such Equity Awards, and the terms and conditions thereof, shall be determined by the Board or the Compensation Committee of the Board, in its discretion

(e) ***Vacation***. The Executive shall be entitled to paid vacation each calendar year during the Term of Employment, in accordance with and subject to the terms of the Company's then effective vacation or paid time off policy.

(f) ***Reimbursement of Reasonable Business Expenses***. Subject to submission of proper substantiation by the Executive, and subject to such rules and guidelines as the Company may from time to time adopt with respect to the reimbursement of reasonable business expenses of executive personnel, the Company shall reimburse the Executive for all reasonable expenses actually paid or incurred by the Executive during the Term of Employment in the course of and pursuant to the business of the Company. The Executive shall account to the Company in writing for all expenses for which reimbursement is sought and shall supply to the Company copies of all relevant invoices, receipts or other evidence reasonably requested by the Company.

4. Termination.

(a) ***General***. The Term of Employment shall terminate upon the earliest to occur of (i) the Executive's death, (ii) a termination by the Company by reason of the Executive's Disability, (iii) a termination by the Company with or without Cause, or (iv) a termination by Executive with or without Good Reason. Upon any termination of Executive's employment for any reason, except as may otherwise be requested by the Company in writing and agreed upon in writing by Executive, the Executive shall resign from any and all directorships, committee memberships or any other positions Executive holds with the Company or any of its Related Entities.

(b) ***Termination by the Company for Cause***. The Company shall at all times have the right, upon written notice to the Executive, to terminate the Term of Employment for Cause. In no event shall a termination of the Executive's employment for Cause occur unless the Company gives written notice to the Executive in accordance with this Agreement stating with reasonable specificity the events or actions that constitute Cause. In the event that the Term of Employment is terminated by the Company for Cause, Executive shall be entitled only to the Accrued Obligations.

(c) ***Disability***. The Company shall have the option, in accordance with applicable law, to terminate the Term of Employment upon written notice to the Executive at any time during which the Executive

is suffering from a Disability. In the event that the Term of Employment is terminated due to the Executive's Disability, the Executive shall be entitled to (i) the Accrued Obligations and (ii) any insurance benefits to which he and his beneficiaries are entitled as a result of his Disability.

(d) ***Death***. In the event that the Term of Employment is terminated due to the Executive's death, the Executive's estate shall be entitled to (i) the Accrued Obligations and (ii) any insurance benefits to which he and his beneficiaries are entitled as a result of his death.

(e) ***Termination Without Cause outside of a Change in Control of the Company or Resignation With Good Reason outside of a Change in Control of the Company***. The Company may terminate the Term of Employment without Cause, and the Executive may terminate the Term of Employment for Good Reason, at any time upon written notice. If the Term of Employment is terminated by the Company without Cause (other than due to the Executive's death or Disability) or by the Executive for Good Reason, in either case prior to the date of a Change in Control or more than two years after a Change in Control, the Executive shall be entitled to the following:

(i) The Accrued Obligations;

(ii) A lump sum payment equal to 9 months of Executive's then-current Base Salary;

(iii) Provided that the Executive timely elects continued coverage under COBRA, the Company will reimburse the Executive for the monthly COBRA cost of continued health and dental coverage of the Executive and his qualified beneficiaries paid by the Executive under the health and dental plans of the Company, less the amount that the Executive would be required to contribute for health and dental coverage if the Executive were an active employee of the Company, for 9 months (or, if less, for the duration that such COBRA coverage is available to Executive). Notwithstanding the above, if the Company determines in its sole discretion that it cannot provide the COBRA benefits described herein without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), the Company shall in lieu thereof provide Executive with a taxable lump sum payment in an amount equal to the then-unreimbursed monthly COBRA premiums.

(f) ***Termination by Executive Without Good Reason***. The Executive may terminate his employment without Good Reason by providing the Company 30 days' written notice of such termination. In the event of a termination of employment by the Executive under this Section 4(f), the Executive shall be entitled only to the Accrued Obligations. In the event of termination of the Executive's employment under this Section 4(f), the Company may, in its sole and absolute discretion, by written notice, accelerate such date of termination and still have it treated as a termination without Good Reason.

(g) ***Termination Without Cause in connection with a Change in Control of the Company or Resignation With Good Reason in connection with a Change in Control of the Company***. If the Executive's employment is terminated by the Company (or any entity to which the obligations and benefits under this Agreement have been assigned pursuant to Section 9(b)) without Cause or by the Executive for Good Reason, in either case during the two year period immediately following a Change in Control, then the Executive shall be entitled to the following:

(i) The Accrued Obligations;

(ii) A lump sum payment equal to 12 months of Executive's then-current Base Salary;

(iii) A lump sum payment equal to the Executive's full Target Bonus for the fiscal year in which the Termination Date occurs;

(iv) Provided that the Executive timely elects continued coverage under COBRA, the Company will reimburse the Executive for the monthly COBRA cost of continued health and dental coverage of the Executive and his qualified beneficiaries paid by the Executive under the health and dental plans of the Company, less the amount that the Executive would be required to contribute for health and dental coverage if the Executive were an active employee of the Company, for 12 months (or, if less, for the duration that such COBRA coverage is available to Executive). Notwithstanding the above, if the Company determines in its sole discretion that it cannot provide the COBRA benefits described herein without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), the Company shall in lieu thereof provide Executive with a taxable lump sum payment in an amount equal to the then-unreimbursed monthly COBRA premiums.

(v) All then-unvested Equity Awards will vest in full.

(h) ***Release***. All rights, payments and benefits due to the Executive under this Section 4 (other than the Accrued Obligations) shall be conditioned on the Executive's execution of a general release of claims against the Company and its affiliates substantially in the form attached hereto as Exhibit B (the "**Release**") and on that Release becoming irrevocable within 60 days following the Termination Date. The severance described in this Section 4 (other than Accrued Obligations) shall be paid no later than the first business day following the sixtieth (60th) day following the termination of employment of Executive and in compliance with the timeframe required under Section 409A as set forth herein, and the first payment will include the payments due and owing prior to that payment date but for the application of this sentence. If the Straddle Period (as defined below) spans two (2) calendar years, then the cash payments under this Section 4 (other than Accrued Obligations) shall first be made on the first business day in the second calendar year that occurs after the expiration of the sixty (60)-day period in which the Release must be delivered and effective, as described in this Section 4. The "**Straddle Period**" shall mean the sixty (60)-day period following a termination of employment in which the Release is to be executed and become irrevocable pursuant to this Section 4.

(i) ***Section 280G Certain Reductions of Payments by the Company***.

(1) Anything in this Agreement to the contrary notwithstanding, in the event it shall be determined that any payment or distribution by the Company to or for the benefit of the Executive, whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise (a "**Payment**"), would be nondeductible by the Company for Federal income tax purposes because of Section 280G of the Code, then the aggregate present value of amounts payable or distributable to or for the benefit of the Executive pursuant to this Agreement (such payments or distributions pursuant to this Agreement are hereinafter referred to as "**Agreement Payments**") shall be reduced to the Reduced Amount. The "**Reduced Amount**" shall be an amount expressed in present value that avoids any Payment being nondeductible by the Company because of Section 280G of the Code. To the extent necessary to avoid imposition of the Excise Tax, the amounts payable or benefits to be provided to the Executive shall be reduced such that the reduction of compensation to be provided to the Executive is minimized. In applying this principle, the reduction shall be made in a manner consistent with the requirements of Section 409A of the Code, and where two economically equivalent amounts are subject to reduction but payable at different times, such amounts shall be reduced on a pro rata basis (but not below zero). Anything to the contrary notwithstanding, if the Reduced Amount is zero and it is determined further that any Payment which is not an Agreement Payment would nevertheless be nondeductible by the Company for Federal income tax purposes because of Section 280G of the Code, then the aggregate present value of Payments which are not Agreement Payments shall also be reduced (but not below zero) to an amount expressed in present value which maximizes the aggregate present value of Payments without causing any Payment to be nondeductible by the Company because of Section 280G of the Code. If a reduction of any Payment is required pursuant to this Section 4(i), such reduction shall occur to the amounts in the order that results in the greatest economic present value of all payments and benefits actually made or provided to the Executive. For purposes of this Section 4(i), present value shall be determined in accordance with Section 280G(d)(4) of the Code.

(2) All determinations required to be made under this Section 4(i) shall be made by a tax or compensation consulting firm of national reputation selected by the Company (the "**Consulting Firm**"), which shall provide detailed supporting calculations both to the Company and the Executive within 20 business days of the date of termination or such earlier time as is requested by the Company and an opinion to the Executive that he has substantial authority not to report any excise tax on his Federal income tax return with respect to any Payments. Any such determination by the Consulting Firm shall be binding upon the Company and the Executive. Within five business days thereafter, the Company shall pay to or distribute to or for the benefit of the Executive such amounts as are then due to the Executive under this Agreement. All fees and expenses of the Consulting Firm incurred in connection with the determinations contemplated by this Section 4(i) shall be borne by the Company.

(3) As a result of the uncertainty in the application of Section 280G of the Code at the time of the initial determination by the Consulting Firm hereunder, it is possible that Payments will have been made by the Company which should not have been made ("**Overpayment**") or that additional Payments which will not have been made by the Company could have been made ("**Underpayment**"), in each case, consistent with the calculations required to be made hereunder. In the event that the Consulting Firm, based upon the assertion of a deficiency by the Internal Revenue Service against the Executive which the Consulting Firm believes has a high probability of success, determines that an Overpayment has been made, any such Overpayment paid or distributed by the Company to or for the benefit of the Executive shall be promptly repaid to the Company by the Executive. In the event that the Consulting Firm, based upon controlling precedent or other substantial authority, determines that an Underpayment has occurred, any such Underpayment shall be promptly paid by the Company to or for the benefit of the Executive together with interest at the applicable federal rate provided for in Section 7872(f)(2) of the Code.

(j) ***Cooperation***. Following the Term of Employment, the Executive shall give his assistance and cooperation willingly, upon reasonable advance notice with due consideration for his other business or personal commitments, in any matter relating to his position with the Company, or his expertise or experience as the Company may reasonably request, including his attendance and truthful testimony where deemed appropriate by the Company, with respect to any investigation or the Company's defense or prosecution of any existing or future claims or litigations or other proceedings relating to matters in which he was involved or potentially had knowledge by virtue of his employment with the Company. In no event shall his cooperation materially interfere with his services for a subsequent employer or other similar service recipient. To the extent permitted by law, the Company agrees that (i) it shall promptly reimburse the Executive for his reasonable and documented expenses in connection with his rendering assistance and/or cooperation under this Section 4(j) upon his presentation of documentation for such expenses and (ii) the Executive shall be reasonably compensated for any continued material services as required under this Section 4(j).

(k) ***Return of Company Property***. Following the Termination Date, the Executive or his personal representative shall return all Company property in his possession, including but not limited to all computer equipment (hardware and software), telephones, facsimile machines, cell phones and other communication devices, credit cards, office keys, security access cards, badges, identification cards and all copies (including drafts) of any documentation or information (however stored) relating to the business of the Company, its customers and clients or its prospective customers and clients.

(l) ***Compliance with Section 409A***.

(i) ***General***. It is the intention of both the Company and the Executive that the benefits and rights to which the Executive could be entitled pursuant to this Agreement comply with Section 409A of the Code and the Treasury Regulations and other guidance promulgated or issued thereunder ("**Section 409A**"), to the extent that the requirements of Section 409A are applicable thereto, and the provisions of this Agreement shall be construed in a manner consistent with that intention.

(ii) ***Distributions on Account of Separation from Service***. If and to the extent required to comply with Section 409A, no payment or benefit required to be paid under this Agreement on account of termination of the Executive's employment shall be made unless and until the Executive incurs a "separation from service" within the meaning of Section 409A.

(iii) ***Six Month Delay for Specified Employees***. If the Executive is a "specified employee" (within the meaning of Section 409A(a)(2)(B)(i) of the Code), then no payment or benefit that is payable on account of the Executive's "separation from service", as that term is defined for purposes of Section 409A, shall be made before the date that is six months after the Executive's "separation from service" (or, if earlier, the date of the Executive's death) if and to the extent that such payment or benefit constitutes deferred compensation (or may be nonqualified deferred compensation) under Section 409A and such deferral is required to comply with the requirements of Section 409A. Any payment or benefit delayed by reason of the prior sentence shall be paid out or provided in a single lump sum at the end of such required delay period in order to catch up to the original payment schedule.

(iv) ***Treatment of Each Installment as a Separate Payment***. For purposes of applying the provisions of Section 409A to this Agreement, each separately identified amount to which the Executive is entitled under this Agreement shall be treated as a separate payment. In addition, any series of installment payments under this Agreement shall be treated as a right to a series of separate payments.

(v) ***Taxable Reimbursements and In-Kind Benefits***.

(A) Any reimbursements by the Company to the Executive of any eligible expenses under this Agreement that are not excludable from the Executive's income for Federal income tax purposes (the "**Taxable Reimbursements**") shall be made by no later than the last day of the taxable year of the Executive following the year in which the expense was incurred.

(B) The amount of any Taxable Reimbursements, and the value of any in-kind benefits to be provided to the Executive, during any taxable year of the Executive shall not affect the expenses eligible for reimbursement, or in-kind benefits to be provided, in any other taxable year of the Executive.

(C) The right to Taxable Reimbursement, or in-kind benefits, shall not be subject to liquidation or exchange for another benefit.

(vi) ***Section 409A Compliance***. Notwithstanding the foregoing, the Company does not make any representation to the Executive that the payments or benefits provided under this Agreement are exempt from, or satisfy, the requirements of Section 409A, and the Company shall have no liability or other obligation to indemnify or hold harmless the Executive or any beneficiary of the Executive for any tax, additional tax, interest or penalties that the Executive or any beneficiary of the Executive may incur in the event that any provision of this Agreement, or any amendment or modification thereof, or any other action taken with respect thereto, is deemed to violate any of the requirements of Section 409A.

5. Restrictive Covenants.

(a) ***Confidential Information***. The Executive shall execute and agree to be bound by the terms of the Company's Employee Invention Assignment, Confidentiality and Non-Competition Agreement (the "***EIIA***") as provided therein.

(b) ***Insider Trading Policies***. Executive agrees that he shall comply with and be bound by the Company's insider trading policies with respect to the securities of the Company as now in effect or hereafter adopted or amended.

(c) ***Clawback Provisions***. All incentive and equity awards and payments shall be subject to the clawback policy of the Company, as now in effect or hereafter adopted or amended, and all applicable laws and rules and regulations of the stock exchanges and public market on which the securities of the Company are traded.

(d) ***Injunction***. It is recognized and hereby acknowledged by the parties hereto that a breach by the Executive of any of the covenants contained in this Section 5 or the EIIA may cause irreparable harm and damage to the Company, and its Related Entities, the monetary amount of which may be virtually impossible to ascertain. As a result, the Executive recognizes and hereby acknowledges that the Company and its Related Entities shall be entitled to seek an injunction from any court of competent jurisdiction enjoining and restraining any violation of any or all of the covenants contained in this Section 5 or the EIIA by the Executive or any of his affiliates, associates, partners or agents, either directly or indirectly, and that such right to injunction shall be cumulative and in addition to whatever other remedies the Company may possess.

6. Representations and Warranties of Executive. The Executive represents and warrants to the Company that:

(a) The Executive's employment will not conflict with or result in his breach of any agreement to which he is a party or otherwise may be bound;

(b) The Executive has not violated, and in connection with his employment with the Company will not violate, any non-solicitation, non-competition or other similar covenant or agreement of a prior employer by which he is or may be bound; and

(c) In connection with Executive's employment with the Company, he will not use any confidential or proprietary information that he may have obtained in connection with employment with any prior employer; and

7. Indemnification. Subject to limitations imposed by law, the Company shall indemnify and hold harmless the Executive to the fullest extent permitted by law from and against any and all claims, damages, expenses (including attorneys' fees), judgments, penalties, fines, settlements, and all other liabilities incurred or paid by him in connection with the investigation, defense, prosecution, settlement or appeal of any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative and to which the Executive was or is a party or is threatened to be made a party by reason of the fact that the Executive is or was an officer, employee or agent of the Company, or by reason of anything done or not done by the Executive in any such capacity or capacities, provided that the Executive acted in good faith, in a manner that was not grossly negligent or constituted willful misconduct and in a manner he reasonably believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful.

8. Definitions. When used in this Agreement, the following terms shall have the following meanings:

(a) ***Accrued Obligations***" means:

(i) all accrued but unpaid Base Salary through the end of the Term of Employment;

(ii) any unpaid or unreimbursed expenses incurred in accordance with Company policy to the extent incurred during the Term of Employment;

(iii) any accrued but unpaid benefits provided under the Company's employee benefit plans, subject to and in accordance with the terms of those plans;

(iv) any unpaid Bonus with respect to any completed fiscal year that has ended on or prior to the end of the Term of Employment; and

(v) any accrued but unused vacation pay.

(b) "***Base Salary***" means the salary provided for in Section 3(a) hereof or any increased salary granted to Executive pursuant to Section 3(a) hereof.

(c) "***Beneficial Owner***" and "***Beneficial Ownership***" shall have the meaning ascribed to such terms in Rule 13d-3 promulgated under the Securities Exchange Act of 1934, as amended.

(d) "***Board***" means the Board of Directors of the Company.

(e) "***Bonus***" means any bonus payable to the Executive pursuant to Section 3(b) hereof.

(f) "***Cause***" means any of the following:

(i) Executive's conviction of or plea of nolo contendere to a felony or to any crime involving moral turpitude;

(ii) willful misconduct or gross negligence by the Executive resulting, in either case, in material economic or reputational harm to the Company or any of Related Entities;

(iii) a willful failure by the Executive to carry out the reasonable and lawful directions given to him with respect to his employment as the Company's SVP Development and failure by the Executive to remedy the failure within thirty (30) days after receipt of written notice of same from the Company;

(iv) fraud, embezzlement, theft or dishonesty of a material nature by the Executive against the Company or any Related Entity, or a willful material violation by the Executive of a policy or procedure of the Company or any Related Entity, resulting, in any case, in material, reputational or economic harm to the Company or any Related Entity; or

(v) a willful material breach by the Executive of this Agreement and failure by the Executive to remedy the material breach within 30 days after receipt of written notice of same by the Company.

(g) "***CEO***" means the Chief Executive Officer of the Company.

(h) "***Change in Control***" means the occurrence of any of the following events: (i) any Person becomes the Beneficial Owner, directly or indirectly, of securities of the Company representing more than fifty percent (50%) of the total voting power represented by the Company's then-outstanding voting securities; provided, however, that for purposes of this subclause (i) the acquisition of additional securities by any one Person who is considered to own more than fifty percent (50%) of the total voting power of the securities of the Company will not be considered a Change in Control; (ii) the consummation of the sale or disposition by the Company of all or substantially all of the Company's assets; (iii) the consummation of a merger or consolidation of the Company with any other corporation, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or its parent) at least fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity or its parent outstanding immediately after such merger or consolidation; or (iv) a change in the effective control of the Company that occurs on the date that a majority of members of the Board is replaced during any twelve (12) month period by members of the Board whose appointment or election is not endorsed by a majority of the members of the Board prior to the date of the appointment or election. For

purpose of this subclause (iv), if any Person is considered to be in effective control of the Company, the acquisition of additional control of the Company by the same Person will not be considered a Change in Control. For purposes of this definition, Persons will be considered to be acting as a group if they are owners of a corporation that enters into a merger, consolidation, purchase or acquisition of stock, or similar business transaction with the Company.

(i) "***COBRA***" means the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended from time to time.

(j) "***Code***" means the Internal Revenue Code of 1986, as amended.

(k) "***Commencement Date***" means the date of this Agreement.

(l) "***Disability***" means the Executive's inability, or failure, to perform the essential functions of his position, with or without reasonable accommodation, for any period of six months or more in any 12 month period, by reason of any medically determinable physical or mental impairment.

(m) "***Equity Awards***" means any stock options, restricted stock, restricted stock units, stock appreciation rights, phantom stock or other equity based awards granted by the Company to the Executive.

(n) "***Excise Tax***" means any excise tax imposed by Section 4999 of the Code, together with any interest and penalties imposed with respect thereto, or any interest or penalties are incurred by the Executive with respect to any such excise tax.

(o) "***Good Reason***" means the occurrence of any of the following events or conditions, without the Executive's express written consent:

(i) a material reduction by the Company in the Executive's annual Base Salary (which for purposes hereof is deemed to constitute a reduction of greater than 10%, unless such reduction applies as part of a salary reduction program and such program includes similar reductions to all of the Executive's direct reports); or

(ii) the relocation of the Executive's principal place of employment to a location more than 50 miles from the Executive's principal place of employment immediately prior to the Executive's termination.

With respect to each of subsection (i) and (ii) above, the Executive must provide notice to the Company of the condition giving rise to "Good Reason" within 30 days of the initial existence of such condition, and the Company will have 30 days following such notice to remedy such condition. The Executive must resign the Executive's employment no later than 30 days following the Company's failure to cure the Good Reason or written notice to the Executive that it will decline to do so.

(p) "***Group***" shall have the meaning ascribed to such term in Section 13(d) of the Securities Exchange Act of 1934.

(q) "***Person***" shall have the meaning ascribed to such term in Section 3(a)(9) of the Securities Exchange Act of 1934 and used in Sections 13(d) and 14(d) thereof.

(r) "***Related Entity***" means any Person controlling, controlled by or under common control with the Company or any of its subsidiaries. For this purpose, the terms "controlling," "controlled by" and "under common control with" mean the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of a Person, whether through the ownership of voting securities, as trustee or executor, by contract or otherwise, including (without limitation) the ownership, directly or indirectly,

of securities having the power to elect a majority of the board of directors or similar body governing the affairs of such Person.

(s) "***Target Bonus***" has the meaning described in Section 3(b).

(t) "***Term of Employment***" means the period during which the Executive shall be employed by the Company pursuant to the terms of this Agreement, which period shall begin on the Commencement Date and continue until terminated in accordance with Section 4 hereof.

(u) "***Termination Date***" means the date on which the Term of Employment ends.

9. Miscellaneous Provisions.

(a) ***Taxes***. All payments or transfers of property made by the Company to the Executive or his estate or beneficiaries shall be subject to the withholding of such amounts relating to taxes as the Company may reasonably determine it should withhold pursuant to any applicable law or regulation.

(b) ***Assignment***. The Company shall have the right to assign this Agreement and its rights and obligations hereunder in whole, but not in part, to any corporation or other entity with or into which the Company may hereafter merge or consolidate or to which the Company may transfer all or substantially all of its assets, if in any such case said corporation or other entity shall by operation of law or expressly in writing assume all obligations of the Company hereunder as fully as if it had been originally made a party hereto, but may not otherwise assign this Agreement or its rights and obligations hereunder. The Executive may not assign or transfer this Agreement or any rights or obligations hereunder.

(c) ***Governing Law and At-will nature of Employment***. Except as expressly set forth herein, this letter agreement and the rights and obligations of the parties hereto shall be construed in accordance with the laws of the Commonwealth of Massachusetts, without giving effect to the principles of conflict of laws. Executive's employment with the Company is employment at-will, which means either Executive or the Company may terminate Executive's employment at any time and for any reason subject to the provisions of Section 4 of this Agreement.

(d) ***Arbitration and Class Action Waiver***. Executive and the Company agree to submit to mandatory binding arbitration any and all claims arising out of or related to Executive's employment with the Company and the termination thereof, including, but not limited to, claims for unpaid wages, wrongful termination, torts, stock or stock options or other ownership interest in the Company, and/or discrimination (including harassment), except as set forth below, based upon any federal, state or local ordinance, statute, regulation or constitutional provision except that each party may, at its, his or her option, seek injunctive relief in court related to the improper use, disclosure or misappropriation of a party's private, proprietary, confidential or trade secret information (collectively, "**Arbitrable Claims**"). Further, to the fullest extent permitted by law, Executive and the Company agree that no class or collective actions can be asserted in arbitration or otherwise. All claims, whether in arbitration or otherwise, must be brought solely in Executive's or the Company's individual capacity, and not as a plaintiff or class member in any purported class or collective proceeding.

THE PARTIES HEREBY WAIVE ANY RIGHTS THEY MAY HAVE TO TRIAL BY JURY IN REGARD TO ARBITRABLE CLAIMS. THE PARTIES FURTHER WAIVE ANY RIGHTS THEY MAY HAVE TO PURSUE OR PARTICIPATE IN A CLASS OR COLLECTIVE ACTION PERTAINING TO ANY ARBITRABLE CLAIMS BETWEEN YOU AND THE COMPANY.

Notwithstanding anything to the contrary herein, nothing in this Arbitration and Class Action Waiver section restricts Executive's right to pursue claims in court (a) on a representative action basis under applicable law or (b) for any alleged sexual harassment or any alleged unlawful discriminatory practices related to sexual harassment.

This Agreement does not restrict Executive's right to file administrative claims Executive may bring before any government agency where, as a matter of law, the parties may not restrict the employee's ability to file such claims (including, but not limited to, the National Labor Relations Board, the Equal Employment Opportunity Commission and the Department of Labor). However, the parties agree that, to the fullest extent permitted by law, arbitration shall be the exclusive remedy for the subject matter of such administrative claims. The arbitration shall be conducted in Boston, Massachusetts through JAMS before a single neutral arbitrator, in accordance with the JAMS employment arbitration rules then in effect. The JAMS rules may be found and reviewed at http://www.jamsadr.com/rules-employment-arbitration. If Executive is unable to access these rules, please let the Company know and Executive will be provided with a hardcopy. The arbitrator shall issue a written decision that contains the essential findings and conclusions on which the decision is based. Executive and the Company agree that this Arbitration and Class Action Waiver Provision shall be governed by the Federal Arbitration Act. Should any portion of this provision be found unenforceable, it shall be severed and the remaining provisions shall remain in full force and effect.

(e) ***Entire Agreement***. This Agreement, together with the exhibit attached hereto, constitutes the entire agreement between the patties hereto with respect to the subject matter hereof and, upon its effectiveness, shall supersede all prior agreements, understandings and arrangements, both oral and written, between the Executive and the Company (or any of its Related Entities) with respect to such subject matter. This Agreement may not be modified in any way unless by a written instrument signed by both the Company and the Executive.

(f) ***Notices***. All notices required or permitted to be given hereunder shall be in writing and shall be personally delivered by courier, sent by registered or certified mail, return receipt requested or sent by confirmed facsimile transmission addressed as set forth herein. Notices personally delivered, sent by facsimile or sent by overnight courier shall be deemed given on the date of delivery and notices mailed in accordance with the foregoing shall be deemed given upon receipt by the addressee, as evidenced by the return receipt thereof. Notice shall be sent (i) if to the Company, addressed to the Company's headquarters, Attention: the Company's CEO, and (ii) if to the Executive, to his address as reflected on the payroll records of the Company, or to such other address as either party shall request by notice to the other in accordance with this provision.

(g) ***Benefits; Binding Effect***. This Agreement shall be for the benefit of and binding upon the parties hereto and their respective heirs, personal representatives, legal representatives, successors and, where permitted and applicable, assigns, including, without limitation, any successor to the Company, whether by merger, consolidation, sale of stock, sale of assets or otherwise.

(h) ***Right to Consult with Counsel***. The Executive acknowledges having read and considered all of the provisions of this Agreement carefully, and having had the opportunity to consult with counsel of his own choosing, and, given this, the Executive agrees that the obligations created hereby are not unreasonable.

(i) ***Severability***. The invalidity of any one or more of the words, phrases, sentences, clauses, provisions, sections or articles contained in this Agreement shall not affect the enforceability of the remaining portions of this Agreement or any part thereof, all of which are inserted conditionally on their being valid in law, and, in the event that any one or more of the words, phrases, sentences, clauses, provisions, sections or articles contained in this Agreement shall be declared invalid, this Agreement shall be construed as if such invalid word or words, phrase or phrases, sentence or sentences, clause or clauses, provisions or provisions, section or sections or article or articles had not been inserted. If such invalidity is caused by length of time or size of area, or both, the otherwise invalid provision will be considered to be reduced to a period or area which would cure such invalidity.

(j) ***Waivers***. The waiver by either party hereto of a breach or violation of any term or provision of this Agreement shall not operate nor be construed as a waiver of any subsequent breach or violation.

(k) ***Damages; Attorneys' Fees***. Nothing contained herein shall be construed to prevent the Company or the Executive from seeking and recovering from the other damages sustained by either or both of them as a result of its or his breach of any term or provision of this Agreement. Each party shall bear its own costs and attorneys' fees.

(l) ***No Set-off or Mitigation***. The Company's obligation to make the payments provided for in this Agreement and otherwise to perform its obligations hereunder shall not be affected by any set off, counterclaim, recoupment, defense or other claim, right or action which the Company may have against the Executive or others. In the event of any termination of the Executive's employment under this Agreement, he shall be under no obligation to seek other employment or otherwise in any way to mitigate the amount of any payment provided for hereunder.

(m) ***Section Headings***. The article, section and paragraph headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement.

(n) ***No Third Party Beneficiary***. The Related Entities are intended third party beneficiaries of this Agreement. Otherwise, nothing expressed or implied in this Agreement is intended, or shall be construed, to confer upon or give any person other than the Company, the parties hereto and their respective heirs, personal representatives, legal representatives, successors and permitted assigns, any rights or remedies under or by reason of this Agreement.

(o) ***Counterparts***. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together shall constitute one and the same instrument and agreement.

[Signature Page to Executive Employment Agreement Follows]

IN WITNESS WHEREOF, the undersigned have executed this Agreement on the date first above written.

Company	**Executive**
KalVista Pharmaceuticals, Inc.	Michael Smith
Print Name:	
Title:	

[Signature Page to Executive Employment Agreement]

Exhibit B

General Release of Claims

1. Michael Smith ("**Executive**"), for himself and his family, heirs, executors, administrators, legal representatives and their respective successors and assigns, in exchange for the consideration received pursuant to Section [4(e)] [4(g)] of the Executive Employment Agreement (the "**Severance Benefits**") to which this release is attached as Exhibit B (the "**Employment Agreement**"), does hereby release and forever discharge KalVista Pharmaceuticals, Inc. (the "**Company**"), its subsidiaries, affiliated companies, successors and assigns, and its current or former directors, officers, employees, shareholders or agents in such capacities (collectively with the Company, the "**Released Parties**") from any and all actions, causes of action, suits, controversies, claims and demands whatsoever, for or by reason of any matter, cause or thing whatsoever, whether known or unknown including, but not limited to, all claims under any applicable laws arising under or in connection with Executive's employment or termination thereof, whether for tort, breach of express or implied employment contract, wrongful discharge, intentional infliction of emotional distress, or defamation or injuries incurred on the job or incurred as a result of loss of employment. Without limiting the generality of the release provided above, Executive expressly waives any and all claims under Age Discrimination in Employment Act ("**ADEA**") that he may have as of the date hereof. Executive further understands that, by signing this General Release of Claims, he is in fact waiving, releasing and forever giving up any claim under the ADEA as well as all other laws within the scope of this paragraph 1 that may have existed on or prior to the date hereof. Notwithstanding anything in this paragraph 1 to the contrary, this General Release of Claims shall not apply to (i) any rights to receive any payments or benefits to which the Executive is entitled under COBRA, (ii) any rights or claims that may arise as a result of events occurring after the date this General Release of Claims is executed, (iii) any indemnification and advancement rights Executive may have as a former employee, officer or director of the Company or its subsidiaries or affiliated companies (including any rights under Section 7 of the Employment Agreement), (iv) any claims for benefits under any directors' and officers' liability policy maintained by the Company or its subsidiaries or affiliated companies in accordance with the terms of such policy, (v) rights to vested benefits under the Company's 401(k) plan, and (vi) any rights as a holder of equity securities of the Company.

2. Executive understands that nothing in this Release shall in any way limit or prohibit Executive from engaging in any Protected Activity. For purposes of this Release, "**Protected Activity**" shall mean filing a charge, complaint, or report with, or otherwise communicating, cooperating, or participating in any investigation or proceeding that may be conducted by, any federal, state or local government agency or commission, including the Securities and Exchange Commission, the Equal Employment Opportunity Commission, the Occupational Safety and Health Administration, and the National Labor Relations Board ("**Government Agencies**"). Executive understands that in connection with such Protected Activity, Executive is permitted to disclose documents or other information as permitted by law, and without giving notice to, or receiving authorization from, the Company. Notwithstanding the foregoing, Executive agrees to take all reasonable precautions to prevent any unauthorized use or disclosure of any information that may constitute Company confidential information to any parties other than the Government Agencies. Executive further understands that "Protected Activity" does not include the disclosure of any Company attorney-client privileged communications. In addition, pursuant to the Defend Trade Secrets Act of 2016, Executive is notified that an individual will not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret that (i) is made in confidence to a federal, state, or local government official (directly or indirectly) or to an attorney solely for the purpose of reporting or investigating a suspected violation of law, or (ii) is made in a complaint or other document filed in a lawsuit or other proceeding, if (and only if) such filing is made under seal. In addition, an individual who files a lawsuit for retaliation by an employer for reporting a suspected violation of law may disclose the trade secret to the individual's attorney and use the trade secret information in the court proceeding, if the individual files any document containing the trade secret under seal and does not disclose the trade secret, except pursuant to court order. This Release does not limit Executive's right to receive an award for information provided to any Government Agencies.

3. Executive represents that he has not filed against the Released Parties any complaints, charges, or lawsuits arising out of his employment, or any other matter arising on or prior to the date of this General Release of Claims, and covenants and agrees that he will never individually or with any person file, or commence the filing of any lawsuits, complaints or proceedings with any governmental agency, or against the Released Parties with respect to any of the matters released by Executive pursuant to paragraph 1 hereof; provided, that nothing herein shall prevent Executive from filing a charge or complaint with the Equal Employment Opportunity Commission ("**EEOC**") or similar federal or state agency or the Executive's ability to participate in any investigation or proceeding conducted by such agency. Nothing in this paragraph shall serve to limit, restrain or impair Executive's rights under paragraph 2 above.

4. Executive acknowledges that, in the absence of his execution of this General Release of Claims, the Severance Benefits would not otherwise be due to him.

5. Executive acknowledges and agrees that he received adequate consideration in exchange for agreeing to the covenants contained in Section 5 of the Employment Agreement and the EIAA (as defined therein), that such covenants remain reasonable and necessary to protect the legitimate business interests of the Company and its affiliates and that he will continue to comply with those covenants.

6. Executive hereby acknowledges that the Company has informed him that he has up to 21 days to sign this General Release of Claims and he may knowingly and voluntarily waive that 21 day period by signing this General Release of Claims earlier. Executive also understands that he shall have seven days following the date on which he signs this General Release of Claims within which to revoke it by providing a written notice of his revocation to the Company.

7. Executive acknowledges and agrees that this General Release of Claims will be governed by and construed and enforced in accordance with the internal laws of the State of Massachusetts applicable to contracts made and to be performed entirely within such State.

8. Executive acknowledges that he has read this General Release of Claims, that he has been advised that he should consult with an attorney before he executes this general release of claims, and that he understands all of its terms and executes it voluntarily and with full knowledge of its significance and the consequences thereof.

9. This General Release of Claims shall become irrevocable on the eighth day following Executive's execution of this General Release of Claims, unless previously revoked in accordance with paragraph 6, above.

Intending to be legally bound hereby, Executive has executed this General Release of Claims on _____, 20__.

Executive

Michael Smith

DEED OF VARIATION OF CONTRACT

(1)KALVISTA PHARMACEUTICALS LIMITED
(2)DR CHRISTOPHER YEA

CONTENTS

Clause **Page**

THIS DEED is made on 2019

BETWEEN:

(1) KALVISTA PHARMACEUTICALS LIMITED incorporated and registered in England and Wales with company number 07543947 whose registered office is at Building 227 Tetricus Science Park, Porton Down, Salisbury, Wiltshire, SP4 0JQ (the **"Company"**); and

(2) DR CHRISTOPHER MARTYN YEA of [****], (the **"Executive"**).

(together the **"Parties"**)

BACKGROUND:

(A) The Company and the Executive are party to a service agreement dated 1 November 2015, as amended on 31 January 2019, (the **"Contract"**), a copy of which is attached at Schedule 1 to this deed.

(B) The KalVista Pharmaceuticals, Inc. compensation committee has approved certain changes to the Agreement. Consequently, the Parties wish to amend the Agreement as set out in this deed with effect from June 26, 2019 (the **"Variation Date"**).

1. Terms defined in the Contract

In this deed, expressions defined in the Contract and used in this deed have the meaning set out in the Contract.

2. Variation

2.1 With effect from the Variation Date the Parties agree the following amendments to the Contract:

a)	Clause 10 is amended so that subclause 10.1 is deleted and replaced with the following: 10.1Subject to the provisions of this clause the Executive will be entitled to a salary at the rate of USD $420,000 per annum (the "Salary"). Such Salary shall accrue from day to day and will be paid in United States Dollars monthly in arrears on such day of each calendar month as the Company may nominate. Executive acknowledges and agrees that he will be paid in United States Dollars, and that he will be solely responsible for any and all costs and fees, or any loss of value due to the then current exchange rate, or fluctuations thereof, related to any subsequent currency exchange he makes with respect to such payments.

	Clause 10 is amended so that subclause 10.3 is deleted and replaced with the following: 10.3The Executive will be eligible to participate in a discretionary performance related bonus each year dependent upon the achievement of pre-determined personal and corporate objectives. In making any bonus award, the Board will assess the Executive's success in achieving the pre-determined objectives and any bonus shall be made in the same manner and at the same time that other senior-level executives receive their annual incentive compensation awards, but in no event later than 2 ½ months following the last day of the applicable Company fiscal year, and, except as otherwise provided herein, will be subject to the Executive's continued employment through the last day of the applicable Company fiscal year. The target amount of bonus for which the Executive will be eligible for the Company's 2020 fiscal year will be 40% of the Executive's Salary (less applicable tax and National Insurance contributions) and which shall be remitted in the currency and on the basis set out in clause 10.1. Additionally, Executive acknowledges and agrees that payment of any bonus amount earned and payable with respect to the Company's 2019 fiscal year shall be remitted in the currency and on the basis set out in clause 10.1. Executive acknowledges and agrees that he will be paid in United States Dollars, and that he will be solely responsible for any and all costs and fees, or any loss of value due to the then current exchange rate, or fluctuations thereof, related to any subsequent currency exchange he makes with respect to such payments. If the Executive receives any bonus payment, the Company is not obliged to make further bonus payments and any such bonus payment shall not for part of the Executive's contractual remuneration or salary. Bonus payment shall not be pensionable or treated as part of basic salary for any purpose
	Clause 10 is amended so that the following is added to the end of subclause 10.4: The Executive acknowledges that all liabilities to income tax and National Insurance contributions are required to be satisfied in Great British Pounds and that the Company will apply such exchange rate on the date of payment as it considers appropriate to calculate the amounts to be withheld from any payments otherwise due to the Executive and remit such sums to HMRC.

2.2 Except as set out in clause 2.1, the Contract shall continue in full force and effect.

3. Counterparts

This deed may be executed in any number of counterparts, all of which taken together shall constitute one and the same agreement.

4. Governing law

This deed and any dispute or claim (including non-contractual disputes or claims) arising out of or in connection with it or its subject matter or formation shall be governed by and construed in accordance with the law of England and Wales.

5. Jurisdiction

Each party irrevocably agrees that the courts of England and Wales shall have exclusive jurisdiction to settle any dispute or claim (including non-contractual disputes or claims) arising out of or in connection with this deed or its subject matter or formation.

THIS AGREEMENT has been entered into as a deed on the date stated at the beginning of it.

SCHEDULE 1

ORIGINAL AGREEMENT

Executed as a **Deed**)
by **DR CHRISTOPHER YEA**) /s/ Dr Christopher Yea
in the presence of:)

Signature of witness: /s/ Debra Lyon

Name: Debra Lyon

Address: [****]

Occupation: Finance Manager

Executed as a **Deed**)
(but not delivered until the date)
appearing at the head of page 1))
by **KALVISTA PHARMACEUTICALS**)
LIMITED acting by T. AndrewCrockett)
a director in the presence of:)

/s/ T. Andrew Crockett
Director

Signature of witness: /s/ Debra Lyon

Name: Debra Lyon

Address: [****]

Occupation: Finance Manager

Exhibit 10.24

DESCRIPTION OF REGISTRANT'S SECURITIES

General

We are authorized to issue 105,000,000 shares of all classes of capital stock, of which 100,000,000 shares are common stock, $0.001 par value per share, and 5,000,000 shares are preferred stock, $0.001 par value per share. Our capital is stated in U.S. dollars. As of July 1, 2019 we had 17,388,298 outstanding shares of common stock and no outstanding shares of preferred stock.

Common Stock

Voting

Holders of our common stock are entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders, including the election of directors, and do not have cumulative voting rights. Accordingly, the holders of a majority of the shares of our common stock entitled to vote in any election of directors can elect all of the directors standing for election.

Dividends

Subject to preferences that may be applicable to any then outstanding preferred stock, the holders of common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds.

Liquidation

In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities, subject to the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock.

Rights and Preferences

Holders of our common stock have no preemptive, conversion or subscription rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of our preferred stock that we may designate and issue in the future.

Fully Paid and Nonassessable

All of our outstanding shares of common stock are fully paid and nonassessable.

Transfer Agent and Registrar

American Stock Transfer & Trust Company, LLC is our transfer agent and registrar for the common stock.

The Nasdaq Global Market

Our common stock is listed on The Nasdaq Global Market under the symbol “KALV.”

Preferred Stock

Under the terms of our Amended and Restated Certificate of Incorporation, our board of directors have the authority, without further action by our stockholders, to issue up to 5,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the rights, preferences and privileges of the shares of each wholly unissued series and any qualifications, limitations or restrictions thereon, and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then outstanding.

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. The purpose of authorizing our board of directors to issue preferred stock and determine its rights and preferences is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in control of us and may adversely affect the market price of our common stock and the voting and other rights of the holders of our common stock. It is not possible to state the actual effect of the issuance of any shares of preferred stock on the rights of holders of common stock until the board of directors determines the specific rights attached to that preferred stock.

Anti-Takeover Effects of Provisions of Our Amended and Restated Certificate of Incorporation, Our Bylaws and Delaware Law

Delaware Anti-Takeover Law

We are subject to the provisions of Section 203 of the Delaware General Corporation Law. In general, Section 203 prohibits a publicly- held Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a three-year period following the time that this stockholder becomes an interested stockholder, unless the business combination is approved in a prescribed manner. A “business combination” includes, among other things, a merger, asset or stock sale or other transaction resulting in a financial benefit to the interested stockholder. An “interested stockholder” is a person who, together with affiliates and associates, owns, or did own within three years prior to the determination of interested stockholder status, 15% or more of the corporation’s voting stock.

Under Section 203, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions: before the stockholder became

interested, the board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder; upon closing of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding, shares owned by persons who are directors and also officers, and employee stock plans, in some instances; or at or after the time the stockholder became interested, the business combination was approved by the board of directors of the corporation and authorized at an annual or special meeting of the stockholders by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

A Delaware corporation may "opt out" of these provisions with an express provision in its original certificate of incorporation or an express provision in its certificate of incorporation or bylaws resulting from a stockholders' amendment approved by at least a majority of the outstanding voting shares. We have not opted out of these provisions. As a result, mergers or other takeover or change in control attempts of us may be discouraged or prevented.

Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws

Our certificate of incorporation and bylaws contain certain provisions that are intended to enhance the likelihood of continuity and stability in the composition of the board of directors and which may have the effect of delaying, deferring or preventing a future takeover or change in control of the company unless such takeover or change in control is approved by the board of directors.

These provisions include:

Classified Board. Our certificate of incorporation provides that our board of directors will be divided into three classes of directors, with the classes as nearly equal in number as possible. As a result, approximately one-third of our board of directors will be elected each year. The classification of directors will have the effect of making it more difficult for stockholders to change the composition of our board. Our bylaws will also provide that, subject to any rights of holders of preferred stock to elect additional directors under specified circumstances, the number of directors will be fixed exclusively pursuant to a resolution adopted by our board of directors.

Action by Written Consent; Special Meetings of Stockholders. Our certificate of incorporation provides that stockholder action can be taken only at an annual or special meeting of stockholders and cannot be taken by written consent in lieu of a meeting. Our bylaws provide that, subject to any special rights of the holders of any series of preferred stock, and to the requirements of applicable law, special meetings of the stockholders can be called only by or at the direction of the board of directors pursuant to a resolution adopted by a majority of the total number of directors which our board of directors would have if there were no vacancies. Except as described above, stockholders are not permitted to call a special meeting or to require the board of directors to call a special meeting.

Removal of Directors. Our bylaws provide that our directors may be removed only for cause by the affirmative vote of at least 66 2/3% of the voting power of our voting stock, voting

together as a single class. This requirement of a supermajority vote to remove directors could enable a minority of our stockholders to prevent a change in the composition of our board.

Advance Notice Procedures. Our bylaws provide for an advance notice procedure for stockholder proposals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to the board of directors. Stockholders at an annual meeting are only be able to consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of the board of directors or by a stockholder who was a stockholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has given our Secretary timely written notice, in proper form, of the stockholder's intention to bring that business before the meeting. Although the bylaws will not give the board of directors the power to approve or disapprove stockholder nominations of candidates or proposals regarding other business to be conducted at a special or annual meeting, the bylaws may have the effect of precluding the conduct of certain business at a meeting if the proper procedures are not followed or may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect its own slate of directors or otherwise attempting to obtain control of the company.

Super Majority Approval Requirements. The Delaware General Corporation Law generally provides that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or bylaws, unless either a corporation's certificate of incorporation or bylaws requires a greater percentage. Our certificate of incorporation and bylaws provide that the affirmative vote of holders of at least 66 2/3% of the total votes eligible to be cast in the election of directors will be required to amend, alter, change or repeal certain provisions of the certificate of incorporation and bylaws. This requirement of a supermajority vote to approve amendments to certain provisions of our certificate of incorporation and bylaws could enable a minority of our stockholders to exercise veto power over any such amendments.

Authorized but Unissued Shares. Our authorized but unissued shares of common stock and preferred stock will be available for future issuance without stockholder approval. These additional shares may be utilized for a variety of corporate purposes, including future public offerings to raise additional capital, corporate acquisitions and employee benefit plans. The existence of authorized but unissued shares of common stock and preferred stock could render more difficult or discourage an attempt to obtain control of a majority of our common stock by means of a proxy contest, tender offer, merger or otherwise.

Exclusive Forum. Our certificate of incorporation provides that, to the fullest extent permitted by applicable law, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders, (iii) any action asserting a claim against us arising pursuant to any provision of the Delaware General Corporation Law, our certificate of incorporation or our bylaws, or (iv) any other action asserting a claim against us that is governed by the internal affairs doctrine. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock shall be deemed to have notice of and to have consented to the provisions of our certificate of incorporation described above. Although we believe these provisions benefit us by

providing increased consistency in the application of Delaware law for the specified types of actions and proceedings, the provisions may have the effect of discouraging lawsuits against our directors and officers. The enforceability of similar choice of forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that, in connection with one or more actions or proceedings described above, a court could find the choice of forum provisions contained in our certificate of incorporation to be inapplicable or unenforceable.

EXHIBIT 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-215185, 333-217009, and 333-228831 on Form S-3 and Registration Statement Nos. 333-203721, 333-215184, 333-216032, 333-217008, 333-226442, and 333-230279 on Form S-8 of our report dated July 15, 2019, relating to the consolidated financial statements of KalVista Pharmaceuticals, Inc. appearing in this Annual Report on Form 10-K of KalVista Pharmaceuticals, Inc. for the year ended April 30, 2019.

/s/ Deloitte & Touche LLP

Boston, Massachusetts
July 15, 2019

Exhibit 31.1

CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, T. Andrew Crockett, certify that:

1. I have reviewed this Annual Report on Form 10-K of KalVista Pharmaceuticals, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rule 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: July 15, 2019 By: /s/ T. Andrew Crockett
T. Andrew Crockett
Chief Executive Officer

Exhibit 31.2

CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Benjamin L. Palleiko, certify that:

1. I have reviewed this Annual Report on Form 10-K of KalVista Pharmaceuticals, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rule 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: July 15, 2019

By: /s/ Benjamin L. Palleiko
Benjamin L. Palleiko
Chief Business Officer & Chief Financial Officer

Exhibit 32.1

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

I, T. Andrew Crockett, Chief Executive Officer of KalVista Pharmaceuticals, Inc. (the "Company"), do hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

- this Annual Report on Form 10-K of the Company for the year ended April 30, 2019 (the "Report"), as filed with the Securities and Exchange Commission, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

- the information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: July 15, 2019 By: /s/ T. Andrew Crockett
T. Andrew Crockett
Chief Executive Officer

Exhibit 32.2

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

I, Benjamin L. Palleiko, Chief Financial Officer of KalVista Pharmaceuticals, Inc. (the "Company"), do hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

- this Annual Report on Form 10-K of the Company for the year ended April 30, 2019 (the "Report"), as filed with the Securities and Exchange Commission, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

- the information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: July 15, 2019 By: /s/ Benjamin L. Palleiko
Benjamin L. Palleiko
Chief Business Officer & Chief Financial Officer