UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2021

□ 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: 001-32295

OR

FENNEC PHARMACEUTICALS INC.

(Exact Name of Registrant as Specified in Its Charter)

British Columbia, Canada (State or Other Jurisdiction of Incorporation or Organization)

PO Box 13628, 68 TW Alexander Drive Research Triangle Park, NC (Address of Principal Executive Offices) 20-0442384 (I.R.S. Employer Identification No.)

27709 (Zip Code)

(919) 636-4530

(Registrant's telephone number, including area code)

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

Trading Symbol

Title of each class Common Shares, no par value

FENC

Name of each exchange on which registered Nasdaq Capital Market

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

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

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

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

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

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

Large accelerated filer \Box Accelerated filer \Box

Non-accelerated filer 🖾 Sm

Smaller reporting company \boxtimes Emerging growth company \Box

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

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

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

The aggregate market value of the voting stock held by non-affiliates of the registrant, computed by reference to the closing sales price of the registrant's Common Shares as reported on the Nasdaq Capital Market on June 30, 2021 (the last business day of the registrant's most recently completed second fiscal quarter) was \$97,834,286 based upon a total of 13,420,341 shares held as of June 30, 2021 by persons believed to be non-affiliates of the registrant (for purposes of this calculation, all of the registrant's officers, directors and 10% owners known to the registrant are deemed to be affiliates of the registrant).

As of February 25, 2022, there were 26,013,519 shares of the registrant's Common Shares outstanding.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements within the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. Our actual results, performance or achievements may be materially different from any results, performance or achievements expressed or implied by such forward-looking statements. Words such as "may," "will," "expect," "believe," "anticipate," "intend," "could," "estimate," "project," "plan," "continue", and other similar words are one way to identify such forward-looking statements. Forward-looking statements in this Annual Report include, but are not limited to, statements with respect to (1) our anticipated sources and uses of cash and cash equivalents; (2) our anticipated commencement dates, completion dates and results of clinical trials; (3) our efforts to pursue collaborations with the government, industry groups or other companies; (4) our anticipated progress and costs of our clinical and preclinical research and development programs; (5) our corporate and development strategies; (6) our expected results of operations; (7) our anticipated levels of expenditures; (8) our ability to protect our intellectual property; (9) our ability to fully comply with domestic and international governmental regulation; (10) the anticipated applications and efficacy of our drug candidate; (11) our ability to obtain U.S. Food and Drug Administration ("FDA") and similar foreign approvals for our drug candidate, (12) the nature and scope of potential markets for our drug candidate; (13) future legal liability; and (14) our ability to attract and retain key employees. All statements, other than statements of historical fact, included in this Annual Report that address activities, events or developments that we expect or anticipate will or may occur in the future are forward-looking statements. We include forward-looking statements because we believe that it is important to communicate our expectations to our investors. However, all forward-looking statements are based on management's current expectations of future events and are subject to a number of risks and uncertainties, including those discussed below in Item 1A., "Risk Factors." Although we believe the expectations reflected in the forward-looking statements are based upon reasonable assumptions, we can give no assurance that our expectations will be attained, and we caution you not to place undue reliance on such statements. We undertake no obligation to publicly update any forwardlooking statement, whether written or oral, that may be made from time to time, whether as a result of new information, future developments or otherwise.

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PART I

Item 1. Business

Overview

Product Candidate - PEDMARKTM

Our only product candidate in the clinical stage of development is:

PEDMARKTM (a unique formulation of sodium thiosulfate ("STS")). We have announced results of two Phase 3 clinical trials for the prevention of cisplatin induced hearing loss, or ototoxicity in children, including the pivotal Phase 3 study SIOPEL 6, "A Multicentre Open Label Randomised Phase 3 Trial of the Efficacy of Sodium Thiosulfate in Reducing Ototoxicity in Patients Receiving Cisplatin Chemotherapy for Standard Risk Hepatoblastoma," and the proof of concept Phase 3 study of Sodium Thiosulfate for the Prevention of Cisplatin-Induced Ototoxicity in Children". COG ACCL0431 final results were published in the Lancet Oncology in 2016. SIOPEL 6 final results were published in the New England Journal of Medicine in June 2018.

We continue to focus our resources on the development of PEDMARKTM.

PEDMARKTM

We have licensed from Oregon Health & Science University ("OHSU") intellectual property rights for the use of PEDMARKTM as a chemoprotectant and are developing PEDMARKTM as a protectant against the hearing loss often caused by platinum-based anti-cancer agents in children. Preclinical and clinical studies conducted by OHSU and others have indicated that PEDMARKTM can effectively reduce the incidence of hearing loss caused by platinum-based anti-cancer agents.

Hearing loss among children receiving platinum-based chemotherapy is frequent, permanent and often severely disabling. The incidence of hearing loss in these children depends upon the dose and duration of chemotherapy, and many of these children require lifelong hearing aids. In addition, adults undergoing chemotherapy for several common malignancies, including ovarian cancer, testicular cancer, and particularly head and neck cancer and brain cancer, often receive intensive platinum-based therapy and may experience severe, irreversible hearing loss, particularly in the high frequencies.

In the U.S. and Europe, it is estimated that, annually, over 10,000 children may receive platinum-based chemotherapy. The incidence of ototoxicity depends upon the dose and duration of chemotherapy, and many of these children require lifelong hearing aids. There is currently no established preventive agent for this hearing loss and only expensive, technically difficult and sub-optimal cochlear (inner ear) implants have been shown to provide some benefit. Infants and young children that suffer ototoxicity at critical stages of development lack speech language development and literacy, and older children and adolescents lack social-emotional development and educational achievement.

In March 2018, PEDMARKTM received Breakthrough Therapy and Fast Track designations from the U.S. Food and Drug Administration ("FDA"). Further, PEDMARKTM has received Orphan Drug Designation in the U.S. in this setting.

We initiated our rolling New Drug Application ("NDA") for PEDMARKTM for the prevention of ototoxicity induced by cisplatin chemotherapy patients 1 month to < 18 years of age with localized, non-metastatic, solid tumors with the FDA in December 2018. We announced that we had submitted full completion of the NDA in February 2020. The FDA set a Prescription Drug User Fee Act ("PDUFA") target action date of August 10, 2020 for the completion of the FDA's review. On August 10, 2020, we announced that we received a Complete Response Letter ("CRL") from the FDA regarding our NDA for PEDMARKTM, which identified deficiencies in the third-party manufacturing facility that manufactures PEDMARKTM on our behalf. Importantly, no clinical safety or efficacy issues were identified during the review and there was no requirement for further clinical data.

In May 2021, we announced the resubmission of our NDA for PEDMARKTM and in June 2021 we further announced that the FDA accepted for filing the resubmission of our NDA and set a PDUFA target action date of November 27, 2021. On November 29, 2021, we announced that we received a CRL from the FDA regarding our NDA for PEDMARKTM, which identified deficiencies in the third-party manufacturing facility that manufactures PEDMARKTM on our behalf. We are working to fully address the CRL, and we plan to resubmit our NDA for PEDMARKTM in the first quarter of 2022.

In August 2018, the Pediatric Committee ("PDCO") of the European Medicines Agency ("EMA") accepted our pediatric investigation plan (PIP) for sodium thiosulfate with the trade name Pedmarqsi for the condition of the prevention of platinum-induced hearing loss. An accepted PIP is a prerequisite for filing a Marketing Authorization Application ("MAA") for any new medicinal product in Europe. The indication targeted by our PIP is for the prevention of platinum-induced ototoxic hearing loss for standard risk hepatoblastoma (SR-HB). Additional tumor types of the proposed indication will be subject to the Committee for Medicinal Products for Human Use ("CHMP") assessment at the time of the MAA. No deferred clinical studies were required in the positive opinion given by PDCO. We were also advised that sodium thiosulfate (tradename to be determined) is eligible for submission of an application for a Pediatric Use Marketing Authorization ("PUMA"). A PUMA is a dedicated marketing authorization covering the indication and appropriate formulation for medicines developed exclusively for use in the pediatric population and provides data and market protection up to 10 years. Therefore, this decision allows us to proceed with the submission of a PUMA in the European Union (EU) with incentives of automatic access to the centralized procedure and up to 10 years of data and market protection. In February 2020, we announced that we had submitted a MAA for the prevention of ototoxicity induced by cisplatin chemotherapy patients 1 month to < 18 years of age with localized, non-metastatic, solid tumors.

Clinical Studies

PEDMARKTM has been studied by cooperative groups in two Phase 3 clinical studies of survival and reduction of ototoxicity, COG ACCL0431 and SIOPEL 6. Both studies have been completed. The COG ACCL0431 protocol enrolled one of five childhood cancers typically treated with intensive cisplatin therapy for localized and disseminated disease, including newly diagnosed hepatoblastoma, germ cell tumor, osteosarcoma, neuroblastoma, and medulloblastoma. SIOPEL 6 enrolled only hepatoblastoma patients with localized tumors.

SIOPEL 6

In October 2007, we announced that our collaborative partner, the International Childhood Liver Tumour Strategy Group, known as SIOPEL, a multi-disciplinary group of specialists under the umbrella of the International Society of Pediatric Oncology, had launched a randomized Phase 3 clinical trial SIOPEL 6 to investigate whether STS reduces hearing loss in standard risk hepatoblastoma (liver) cancer patients receiving cisplatin as a monotherapy.

The study was initiated in October 2007 initially in the United Kingdom and completed enrollment at the end of 2014. 52 sites from 11 countries enrolled 109 evaluable patients. Under the terms of our agreement, SIOPEL conducted and funded all clinical activities and we provided drug, drug distribution and pharmacovigilance, or safety monitoring, for the study. SIOPEL 6 was completed in December 2014 and the final results of SIOPEL 6 were published in *The New England Journal of Medicine* in June 2018.

The primary objectives of SIOPEL 6 were:

- To assess the efficacy of STS to reduce the hearing impairment caused by cisplatin.
- To carefully monitor any potential impact of STS on response to cisplatin and survival.

SIOPEL 6 - Results

Background / Objectives:

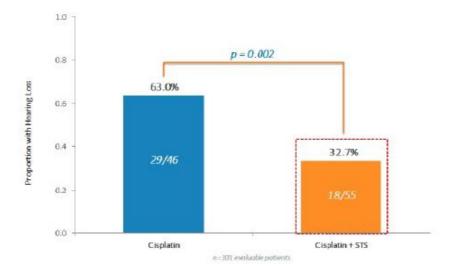
Bilateral high-frequency hearing loss is a serious permanent side-effect of cisplatin therapy, particularly debilitating when occurring in young children. STS has been shown to reduce cisplatin induced hearing loss. SIOPEL 6 was a Phase 3 randomized trial to assess the efficacy of STS in reducing ototoxicity in young children treated with cisplatin (Cis) for Standard Risk Hepatoblastoma (SR-HB).

Design / Methods:

Newly diagnosed patients with SR-HB, defined as tumor limited to PRETEXT I, II or III, no portal or hepatic vein involvement, no intra-abdominal extrahepatic disease, AFP >100ng/ml and no metastases, were randomized to Cis or Cis+STS for 4 preoperative and 2 postoperative courses. Cisplatin 80mg/m2 was administered over 6 hours, STS 20g/m2 was administered intravenously over 15 minutes exactly 6 hours after stopping cisplatin. Tumor response was assessed after 2 and 4 preoperative cycles with serum AFP and liver imaging. In case of progressive disease (PD), STS was to be stopped and doxorubicin 60mg/m2 combined with cisplatin. The primary endpoint was centrally reviewed absolute hearing threshold, at the age of \geq 3.5 years by pure tone audiometry.

Results:

109 randomized patients (52 Cisplatin only ("Cis") and 57 Cis+STS) were evaluable. The combination of Cis+STS was generally well tolerated. With a patient follow-up time of 52 months, the three-year Event Free Survival ("EFS") for Cis was 78.8% Cisplatin and 82.1% for the Cis + STS. The three-year Overall Survival ("OS") is 92.3% for Cis and 98.2% for Cis + STS. Treatment failure defined as Progressive Disease ("PD") at 4 cycles was equivalent in both arms. Among the first 101 evaluable patients, hearing loss occurred in 29/46=63.0% under Cis and in 18/55=32.7% under Cis +STS, corresponding to a relative risk of 0.52(P=0.002).



Conclusions:

This randomized Phase 3 trial in SR-HB of cisplatin versus cisplatin plus STS shows that the addition of STS significantly reduces the incidence of cisplatin-induced hearing loss without any evidence of tumor protection.

COG ACCL0431

In March 2008, we announced the activation of a Phase 3 trial with STS to prevent hearing loss in children receiving cisplatin-based chemotherapy in collaboration with the Children's Oncology Group. The goal of this Phase 3 study was to evaluate in a multi-centered, randomized trial whether STS is an effective and safe means of preventing hearing loss in children receiving cisplatin-based chemotherapy for newly diagnosed germ cell, liver (hepatoblastoma), brain (medulloblastoma), nerve tissue (neuroblastoma) or bone (osteosarcoma) cancers. Eligible children, one to eighteen years of age, were to receive cisplatin according to their disease-specific regimen and, upon enrollment in this study, were randomized to receive STS or not. Efficacy of STS was determined through comparison of hearing sensitivity at follow-up relative to baseline measurements using standard audiometric techniques. The Children's Oncology Group was responsible for funding the clinical activities for the study and we were responsible for providing the drug, drug distribution and pharmacovigilance, or safety monitoring, for the study. The trial completed enrollment of

131 pediatric patients in the first quarter of 2012. The final results of COG ACCL0431 were published in *Lancet Oncology* in December 2016.

COG ACCL0431 - Results

COG Study ACCL0431, "A Randomized Phase 3 Study of Sodium Thiosulfate for the Prevention of Cisplatin-Induced Ototoxicity in Children," finished enrollment of 131 patients of which 125 were eligible patients. The patients had been previously diagnosed with childhood cancers.

The primary endpoint was to evaluate the efficacy of STS for prevention of hearing loss in children receiving cisplatin chemotherapy (hypothesis: 50% relative reduction in hearing loss).

Secondary endpoints included:

- Compare change in mean hearing thresholds.
- Compare incidence of other Grade 3/4 toxicities (renal and hematological).
- Monitor Event Free Survival (EFS) and Overall Survival (OS) in two groups.

125 eligible subjects were enrolled with germ cell tumor (32), osteosarcoma (29), neuroblastoma (26), medulloblastoma/pnet (26), hepatoblastoma (7), or other (5). Of these, 104 subjects (64 male and 29 <5 years old) were evaluable for the primary endpoint.

Subjects were randomized either to no treatment (control) or treatment with STS 16 grams/m2 IV over 15 minutes, 6 hours after each cisplatin dose. Hearing was measured using standard audiometry for age and data was reviewed centrally using American Speech-Language-Hearing Association criteria.

The proportion of subjects with hearing loss assessed at 4 weeks post the final cisplatin dose (primary endpoint):

- The proportion of hearing loss for STS vs. Control was 28.6% (14/49) vs. 56.4% (31/55), respectively (p=0.004).
- In a predefined subgroup of patients less than 5 years old with 29 eligible subjects: STS vs. Control was 21.4% (3/14) vs. 73.3% (11/15), respectively (p=0.005).

Conclusions:

- STS protects against cisplatin-induced hearing loss in children across a heterogeneous range of tumor types, with even stronger efficacy in the protocol predefined subgroup of patients under five years old, and is not associated with serious adverse events attributed to its use.
- Further potential clinical use will be informed by the final results of SIOPEL 6 study.

Intellectual Property

Patents are important to developing and protecting our competitive position. Our general policy is to seek patent protection in the United States, major European countries, Japan, Canada and other jurisdictions as appropriate for our compounds and methods. U.S. patents, as well as most foreign patents, are generally effective for 20 years from the date the earliest (priority) application was filed; however, U.S. patents that issue on applications filed before June 8, 1995 may be effective until 17 years from the issue date, if that is later than the twenty-year date. In some cases, the patent term may be extended to recapture a portion of the term lost during the U.S. FDA regulatory review or because of U.S. Patent and Trademark Office ("USPTO") delays in prosecuting the application. The duration of foreign patents varies similarly, in accordance with local law. Currently, we have licensed from OHSU one U.S. set to expire in December 2038. Further, in September 2020, a U.S. patent was issued to us that captures the unique anhydrous form of the active

ingredient in our PEDMARKTM product, as well as related methods of synthesis. This patent is eligible for listing in the FDA Orange Book, and reflects our strategy to expand and diversify our intellectual property portfolio to obtain protection for our PEDMARKTM product.

On October 29, 2021, Hope Medical Enterprises, Inc. ("Hope") filed two petitions for inter partes review ("IPR") with the Patent Trial and Appeal Board ("PTAB") of the USPTO. In its petitions. Hope seeks to invalidate our U.S. Patent No. 10,596,190 ("US '190"), which is exclusively in-licensed from Oregon Health & Science University ("OHSU") and relates to a method of using our PEDMARK[™] product, and our U.S. Patent No. 10.792.363 ("US '363"), which relates to an anhydrous form of STS, which is the active pharmaceutical ingredient in our PEDMARK™ product. US '190 was issued on March 24, 2020. US '363 was issued on October 6, 2020. We filed preliminary responses to the petitions in February 2022, and thereafter, the PTAB has three months to decide whether to institute IPR proceedings. If the PTAB institutes one or both reviews, the final written decision(s) will be due about one year after the PTAB's decision to institute IPR proceedings, and following additional submissions by the parties. Any appeals of a PTAB decision would delay any final outcome. We plan to vigorously defend our intellectual property rights related to PEDMARKTM. However, we are unable to predict the outcome of these petitions, and an invalidation of one or both of these patents may have a material adverse effect on our ability to protect our rights in PEDMARK™ beyond the periods of marketing exclusivity for PEDMARKTM possible in the United States under Orphan Drug Designation and in Europe under European Market Exclusivity for Pediatric Use ("PUMA"). We obtained U.S. Orphan Drug Designation for the use of PEDMARKTM in the prevention of platinum-induced ototoxicity in pediatric patients in 2004. We plan to pursue PUMA upon approval of the MAA, which would allow for 10 years of market exclusivity upon PUMA approval.

On January 11, 2022, our licensor OHSU filed a Request for Supplemental Examination of US '190 requesting the consideration by the USPTO of certain prior art references, including references cited by Hope in its Petition for IPR that are relevant to the granted claim of the patent. On January 28, 2022, the USPTO found that the cited references constitute a substantial new question of patentability and ordered an ex parte reexamination of the single US '190 claim of pursuant to 35 U.S.C. § 257. We are unable to predict the outcome of the *ex parte* reexamination. If the USPTO does not uphold the '190 claim as granted or in amended form, our ability to protect our PEDMARKTM product beyond Orphan Drug Designation and PUMA may be adversely affected.

Our success is significantly dependent on our ability to obtain and maintain patent protection for PEDMARKTM, both in the United States and abroad. Our patent position and proprietary rights are subject to various risks and uncertainties. Please read the "Risk Factors" in Item 1A of this Annual Report for information about certain risks and uncertainties that may affect our patent position and proprietary rights.

We also rely upon unpatented confidential information to remain competitive. We protect such information principally through confidentiality agreements with our employees, consultants, outside scientific collaborators, and other advisers. In the case of our employees, these agreements also provide, in compliance with relevant law, that inventions and other intellectual property conceived by such employees during their employment shall be our exclusive property.

Corporate Relationships

License Agreement with Oregon Health & Science University

On February 20, 2013, we entered into a new exclusive license agreement with OHSU for exclusive worldwide license rights to intellectual property directed to thiol-based compounds, including PEDMARKTM, and their use in oncology (the "OHSU Agreement"). OHSU will receive certain milestone payments, royalty on net sales for licensed products and a royalty on any consideration received from sublicensing of the licensed technology.

On May 18, 2015, we negotiated an amendment ("Amendment 1") to the OHSU Agreement, which expands our exclusive license to include the use of N-acetylcysteine as a standalone therapy and/or in combination with STS for the prevention of ototoxicity induced by chemotherapeutic agents to treat cancers. Further, Amendment 1 adjusts select milestone payments entered in the OHSU Agreement including but not limited to the royalty rate on net sales for licensed products, royalty rate from sublicensing of the licensed technology and the fee payable upon the regulatory approval of a licensed product.

The term of the OHSU Agreement as amended by Amendment 1 expires on the date of the last to expire claim(s) covered in the patents licensed to us or 8 years, whichever is later. In the event a licensed product obtains regulatory approval and is covered by the Orphan Drug Designation, the parties will in good faith amend the term of the agreement. PEDMARKTM is currently protected by methods of use patent that we exclusively license from OHSU that that expire in the United States in 2038 The OHSU Agreement is terminable by either us or OHSU in the event of a material breach of the agreement by either party after 45 days prior written notice. We also have the right to terminate the OHSU Agreement at any time upon 60 days prior written notice and payment of all fees due to OHSU under the OHSU Agreement.

COVID-19

Our operations may be affected by the ongoing COVID-19 pandemic. The ultimate disruption that may be caused by the pandemic is uncertain; however, it may result in a material adverse impact on our financial position, operations and cash flows. Possible effects may include, but are not limited to, disruption to our product launch, which includes the ability of sales reps to communicate with oncologists, absenteeism in our labor workforce, unavailability of products and supplies used in operations, and a decline in value of our assets, including inventories, property and equipment, and marketable securities.

COVID-19 has not had a material effect on our operations to date as we have historically had a workforce which works remotely.

Competition

The biotechnology and pharmaceutical industries are extremely competitive. Our potential competitors are many in number and include major and mid-sized pharmaceutical and biotechnology companies. Many of our potential competitors have significantly more financial, technical and other resources than we do, which may give them a competitive advantage. In addition, they may have substantially more experience in effecting strategic combinations, in-licensing technology, developing drugs, obtaining regulatory approvals and manufacturing and marketing products. We cannot give any assurances that we can compete effectively with these other biotechnology and pharmaceutical companies. We expect that if PEDMARKTM achieves regulatory approval for sale, it will compete on the basis of drug efficacy, safety, patient convenience, reliability, ease of manufacture, price, marketing, distribution, and patent protection, among other variables. Our competitors may develop technologies or drugs that are more effective, safer or more affordable than any we may develop.

We are not aware of any commercially available agents that reduce the incidence of hearing loss associated with the use of platinum-based anti-cancer agents, for which purpose we are developing PEDMARKTM. There are several potential competitive agents with activity in preclinical or limited clinical settings. These include: D-methionine, an amino acid that has been shown to protect against hearing loss in experimental settings but was demonstrated to be inferior to PEDMARKTM in comparative studies; SPI-3005, an oral agent primarily being developed by Sound Pharmaceuticals for noise and age-related hearing loss but in early Phase II trials for chemotherapy related hearing loss, which mimics glutathione peroxidase and induces the intracellular induction of glutathione; N-acetylcysteine and amifostine, which have shown effectiveness (but less than PEDMARKTM) in experimental systems; and Vitamin E, salicylate and tiopronin, which have all demonstrated moderate activity in rat models to protect against cisplatin-induced ototoxicity, but no clinical trials have been completed and DB-020 a clinical stage candidate in an ongoing Phase1b trial being developed by Decibel Therapeutics. Cochlear implants, which are small electronic devices that are surgically placed in the inner ear to assist with certain types of deafness, are utilized to offer some relief for hearing loss associated with the use of platinum-based anti-cancer agents, but are often suboptimal.

Manufacturing and Clinical Supplies

We do not own or operate manufacturing facilities for the production of commercial or clinical quantities of any product, including PEDMARKTM. We currently rely on a small number of third-party manufacturers to produce compounds used in our product development and commercial activities and expect to continue to do so to meet the preclinical and clinical requirements of our potential products and for all of our commercial needs. We currently have long-term commercial supply agreements with certain third-party manufacturers. Our manufacturing and processing agreements require that all third-party contract manufacturers and processors produce active pharmaceutical ingredients and finished products in

accordance with the FDA's current Good Manufacturing Practices ("cGMP") and all other applicable laws and regulations. We maintain confidentiality agreements with potential and existing manufacturers in order to protect our proprietary rights related to PEDMARKTM.

Some of the critical materials and components used in manufacturing PEDMARKTM are sourced from single suppliers. An interruption in the supply of a key material could significantly delay our research and development process or increase our expenses for commercialization or development of PEDMARKTM. Specialized materials must often be manufactured for the first time for use in drug delivery technologies, or materials may be used in the technologies in a manner that is different from their customary commercial uses. The quality of materials can be critical to the performance of a drug delivery technologies may be difficult to obtain on commercially reasonable terms, particularly when relatively small quantities are required or if the materials traditionally have not been used in pharmaceutical products.

Government Regulation

The production and manufacture of our product candidate and our research and development activities are subject to significant regulation for safety, efficacy and quality by various governmental authorities around the world. Before new pharmaceutical products may be sold in the U.S. and other countries, clinical trials of the product must be conducted, and the results submitted to appropriate regulatory agencies for approval. Clinical trial programs must establish efficacy, determine an appropriate dose and regimen, and define the conditions for safe use. This is a high-risk process that requires stepwise clinical studies in which the candidate product must successfully meet predetermined endpoints. In the U.S., the results of the preclinical and clinical testing of a product are then submitted to the FDA in the form of a Biologics License Application or a NDA. In response to these submissions, the FDA may grant marketing approval, request additional information or deny the application if it determines the application does not provide an adequate basis for approval. Similar submissions are required by authorities in other jurisdictions who independently assess the product and may reach the same or different conclusions.

The receipt of regulatory approval often takes a number of years, involves the expenditure of substantial resources and depends on a number of factors, including the severity of the disease in question, the availability of alternative treatments and the risks and benefits demonstrated in clinical trials. On occasion, regulatory authorities may require larger or additional studies, leading to unanticipated delay or expense. Even after initial approval from the FDA or other regulatory agencies has been obtained, further clinical trials may be required to provide additional data on safety and effectiveness. Additional trials are required to gain clearance for the use of a product as a treatment for indications other than those initially approved. Furthermore, the FDA and other regulatory agencies require companies to disclose clinical trial results. Failure to disclose such results within applicable time periods could result in penalties, including civil monetary penalties.

In Canada, these activities are subject to regulation by Health Canada's Therapeutic Products Directorate ("TPD") and the rules and regulations promulgated under the Food and Drug Act. In the United States, drugs and biological products are subject to regulation by the FDA. The FDA requires licensing of manufacturing and contract research facilities, carefully controlled research and testing of products and governmental review and approval of results prior to marketing therapeutic products. Additionally, the FDA requires adherence to current Good Laboratory Practices ("cGLP") as well as current Good Clinical Practices ("cGCP") during clinical testing and cGMP and adherence to labeling and supply controls. The systems of new drug approvals in Canada and the United States are substantially similar and are generally considered to be among the most rigorous in the world.

Generally, the steps required for drug approval in Canada and the United States, specifically in cancer related therapies, include:

Preclinical Studies: Preclinical studies, also known as non-clinical studies, primarily involve evaluations of
pharmacology, toxic effects, pharmacokinetics and metabolism of a drug in animals to provide evidence of the
relative safety and bioavailability of the drug prior to its administration to humans in clinical studies. A typical
program of preclinical studies takes 18 to 24 months to complete. The results of the preclinical studies as well as
information related to the chemistry and comprehensive descriptions of proposed human clinical studies are then
submitted as part of the Investigational New Drug Application ("IND") to the FDA, a Clinical Trial

Application to the TPD, or similar submission to other foreign regulatory bodies. This is necessary in Canada, the United States and most other countries prior to undertaking clinical studies. Additional preclinical studies are conducted during clinical development to further characterize the toxic effects of a drug prior to submitting a marketing application.

- *Phase 1 Clinical Trials*: Most Phase 1 clinical trials take approximately one year to complete and are usually conducted on a small number of healthy human subjects to evaluate the drug's safety, tolerability and pharmacokinetics. In some cases, such as cancer indications, Phase 1 clinical trials are conducted in patients rather than healthy volunteers.
- *Phase 2 Clinical Trials*: Phase 2 clinical trials typically take one to two years to complete and are generally carried out on a relatively small number of patients, generally between 15 and 50, in a specific setting of targeted disease or medical condition, in order to provide an estimate of the drug's effectiveness in that specific setting. This phase also provides additional safety data and serves to identify possible common short-term side effects and risks in a somewhat larger group of patients. Phase 2 testing frequently relates to a specific disease, such as breast or lung cancer. Some contemporary methods of developing drugs, particularly molecularly targeted therapies, do not require broad testing in specific diseases, and instead permit testing in subsets of patients expressing the particular marker. In some cases, such as cancer indications, the company sponsoring the new drug may submit a marketing application to seek accelerated approval of the drug based on evidence of the drug's effect on a "surrogate endpoint" from Phase II clinical trials. A surrogate endpoint is a laboratory finding or physical sign that may not be a direct measurement of how a patient feels, functions or survives, but is still considered likely to predict therapeutic benefit for the patient. If accelerated approval is received, the company sponsoring the new drug must continue testing to demonstrate that the drug indeed provides therapeutic benefit to the patient.
- *Phase 3 Clinical Trials*: Phase 3 clinical trials typically take two to four years to complete and involve tests on a much larger population of patients suffering from the targeted condition or disease. These studies involve conducting controlled testing and/or uncontrolled testing in an expanded patient population, numbering several hundred to several thousand patients, at separate test sites, known as multi-center trials, to establish clinical safety and effectiveness. These trials also generate information from which the overall benefit-risk relationship relating to the drug can be determined and provide a basis for drug labeling. Phase 3 trials are generally the most time consuming and expensive part of a clinical trial program. In some instances, governmental authorities, such as the FDA, will allow a single Phase 3 clinical trial to serve as a pivotal efficacy trial to support a marketing application.
- *Marketing Application*: Upon completion of Phase 3 clinical trials, the pharmaceutical company sponsoring the new drug assembles all the chemistry, preclinical and clinical data and submits it to the TPD or the FDA as part of a New Drug Submission in Canada or a NDA in the United States. The marketing application is then reviewed by the applicable regulatory body for approval to market the product. The review process generally takes twelve to eighteen months.

Any clinical trials that we conduct may not be successfully completed, either in a satisfactory time period or at all. The typical time periods described above may vary substantially and may be materially longer. In addition, the FDA and its counterparts in other countries have considerable discretion to discontinue trials if they become aware of any significant safety issues or convincing evidence that a therapy is not effective for the indication being tested. It is possible the FDA and its counterparts in other countries may not (i) allow clinical trials to proceed at any time after receiving an IND, (ii) allow further clinical development phases after authorizing a previous phase, or (iii) approve marketing of a drug after the completion of clinical trials.

While European, U.S. and Canadian regulatory systems require that medical products be safe, effective, and manufactured according to high quality standards, the drug approval process in Europe differs from that in the United States and Canada and may require us to perform additional preclinical or clinical testing regardless of whether FDA or TPD approval has been obtained. The amount of time required to obtain necessary approvals may be longer or shorter than that required for FDA or TPD approval. European Union Regulations and Directives generally classify health care products either as medicinal products, medical devices or in vitro diagnostics. For medicinal products, marketing approval may be sought using either the centralized procedure of the European Agency for the Evaluation of Medicinal

Products ("EMEA"), or the decentralized, mutual recognition process. The centralized procedure, which is mandatory for some biotechnology derived products, results in an approval recommendation from the EMEA to all member states, while the European Union mutual recognition process involves country by country approval.

The NDA Approval Process

Assuming successful completion of the required clinical testing, the results of the preclinical studies and clinical trials, including negative or ambiguous results as well as positive findings, together with detailed information relating to the product's chemistry, manufacture, controls and proposed labeling, among other things, are submitted to the FDA as part of an NDA to support approval to market the product for one or more indications. In most cases, the submission of an NDA is subject to a substantial application user fee. Fennec anticipates a waiver of the application user fee related to its NDA for PEDMARKTM.

The FDA is required to conduct a preliminary review of an NDA within the first 60 days after submission, before accepting it for filing, to determine whether it is sufficiently complete to permit a substantive review. The FDA may accept the NDA for filing, potentially refuse to file the NDA due to deficiencies but work with the applicant to rectify the deficiencies (in which case the NDA is filed upon resolution of the deficiencies) or refuse to file the NDA. The FDA must notify the applicant of a refusal to file a decision within 60 days after the original receipt date of the application. If the FDA refuses to file the NDA the applicant may resubmit the NDA with the deficiencies addressed. The resubmitted NDA is considered a new application subject to a new review goal, as described below. If the NDA is refused for filing, the FDA will refund 75 percent of the application fee. Upon resubmission, a new application fee will be required, unless the applicant is eligible for a waiver or reduction. The resubmitted application is also subject to review before the FDA accepts it for filing. Once an NDA is accepted for filing, the FDA begins an in-depth substantive review. Under PDUFA, and the FDA's commitments under the current PDUFA reauthorization, the FDA has a goal of reviewing and acting on 90% of standard non-priority NDA applications for drugs that are not new molecular entities within ten months from the FDA's receipt of the NDA.

The FDA reviews an NDA to determine, among other things, whether the drug is safe and effective for its intended use and whether the facility in which it is manufactured, processed, packaged or held meets standards designed to assure the product's continued safety, quality and purity. The FDA is required to refer an application for a novel drug to an advisory committee or explain why such referral was not made. An advisory committee is a panel of independent experts, including clinicians and other scientific experts, that reviews, evaluates and provides a recommendation in response to specific questions raised by the FDA, which may include whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

Before approving an NDA, the FDA may inspect the facility or facilities where the product is manufactured. The FDA will not approve an application unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. Additionally, before approving an NDA, the FDA will typically inspect one or more clinical investigational sites to evaluate the integrity of the data and confirm compliance with cGCP.

After the FDA evaluates the NDA and conducts its inspections, it may issue an approval letter or a CRL. An approval letter authorizes the commercial marketing of the drug subject to specific prescribing information for specific indications and, if applicable, specific post-approval requirements. A CRL indicates that the review cycle of the application is complete and the application is not ready for approval in its present form. After receiving a CRL, the applicant must decide within twelve months (subject to extension), if it wants to resubmit the NDA addressing the deficiencies identified by the FDA in the CRL, withdraw the NDA, or request an opportunity for a hearing to challenge the FDA's determination. A CRL may require additional clinical data and/or an additional pivotal Phase 3 clinical trial(s), and/or other significant, expensive and time-consuming requirements related to clinical trials, nonclinical studies or manufacturing. Even if such data are submitted, the FDA may ultimately decide that the NDA does not satisfy the criteria for approval. Data from clinical trials are not always conclusive and the FDA may interpret data differently than we interpret data.

The FDA also may require implementation of a Risk Evaluation and Mitigation Strategy ("REMS"), to mitigate any identified or suspected serious risks. The REMS could include a medication guide, physician communication plan,

assessment plan and elements to assure safe use, such as restricted distribution methods, patient registries or other risk minimization tools.

The drug testing and approval process requires substantial time, effort and financial resources, and may take several years to complete. Data obtained from clinical activities are not always conclusive and may be susceptible to varying interpretations, which could delay, limit or prevent marketing approval. The FDA may not grant marketing approval on a timely basis, or at all.

Even if the FDA approves a product, it may limit the approved indications for use for the product. The FDA requires that the approved product labeling include information regarding contraindications, warnings or precautions. It may also require that post-approval studies, including a long-term registry, be conducted to further assess a drug's safety after approval, require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution restrictions or other risk management mechanisms, which can materially affect the potential market and profitability of the product. The FDA may prevent or limit further marketing of a product based on the results of post-marketing studies or surveillance programs. After approval, some types of changes to the approved product, such as adding new indications or labeling claims or manufacturing changes may be subject to further testing requirements and FDA review and approval. Also after approval, the FDA may require labeling changes as new information becomes known, particularly if new risks are identified, such as unexpected adverse events. The FDA has the authority to prevent or limit further marketing of a drug based on the results of these post-marketing studies and programs or other information that may become known after approval.

Other Regulatory Requirements.

Drugs manufactured or distributed pursuant to FDA approvals are subject to pervasive and continuing regulation by the FDA, including, among other things, annual establishment registration, product listing, user fees, compliance with requirements regarding cGMP, recordkeeping, periodic reporting, product sampling and distribution, advertising and promotion, and adverse drug experience monitoring and reporting with the product. After approval, most changes to the approved product labeling, such as adding new indications, are subject to prior FDA review and approval. Also, any post-approval changes in the drug substance, drug product, production process, quality controls, equipment, or facilities that have a substantial potential to have an adverse effect on the identity, strength, quality, purity, or potency of the drug product are subject to FDA review and approval. Any such changes that have a moderate potential to have an adverse effect on the identity, strength, quality, purity, or potency of the drug product may not be implemented until 30 days after the FDA receives a supplement for the change. All manufacturing facilities, as well as records required to be maintained under FDA regulations, are subject to inspection or audit by the FDA. In addition, manufacturers generally are required to pay annual user fees for approved products and a user fee for the submission of each new or supplemental application.

The FDA may impose a number of post-approval requirements as a condition of approval of an NDA. For example, the FDA may require post-approval testing, including Phase 4 clinical trials, and surveillance to further assess and monitor the product's safety and effectiveness after commercialization. The Food and Drug Administration Amendments Act of 2007 gave the FDA the authority to require a REMS from drug manufacturers to manage a known or potential serious risk associated with the drug and to ensure that the benefits of a drug outweigh its risks. Examples of a REMS include, but are not limited to, a Medication Guide, a patient package insert to help mitigate a serious risk of the drug, and a communication plan to healthcare providers to support the implementation of an element of the REMS.

In addition, drug manufacturers and other entities involved in the manufacture and distribution of approved drugs are required to register their establishments with the FDA and register or obtain permits or licenses in states where they do business, and are subject to periodic unannounced inspections by the FDA and state regulatory authorities with jurisdiction over their activities to determine compliance with regulatory requirements. A drug manufacturer is responsible for ensuring that its third-party contractors operate in compliance with applicable laws and regulations including the cGMP regulation. The failure of a drug manufacturer or any of its third-party contractors to comply with federal or state laws or regulations may subject the drug manufacturer to possible legal or regulatory action, such as an untitled letter, warning letter, recall, suspension of manufacturing or distribution or both, suspension of state permit or license, seizure of product, import detention, injunctive action, and civil and criminal penalties.

Changes to the manufacturing process are strictly regulated and often require prior FDA approval before being implemented. FDA regulations also require a drug manufacturer to conduct investigations and implement appropriate corrective actions to address any deviations from cGMP requirements and impose reporting and documentation requirements upon the manufacturer and any third-party contractors (including contract manufacturers and laboratories) involved in the manufacture of a drug product. Accordingly, manufacturers must continue to expend significant time, money and effort to maintain and ensure ongoing cGMP compliance and to confirm and ensure ongoing cGMP compliance of their third-party contractors.

Once an approval is granted, the FDA may withdraw the approval if, among other things, there is information that the drug is unsafe for use under the approved conditions of use; new information or evidence that, evaluated together with evidence available to the FDA at the time of approval, shows that the drug is not shown to be safe for use under the approved conditions of use; new information that, evaluated together with the evidence available to the FDA at the time of approval, shows that the drug is not shown to be safe for use under the approved conditions of use; new information that, evaluated together with the evidence available to the FDA at the time of approval, shows there is a lack of substantial evidence of effectiveness; the approved application contains an untrue statement of material fact; or that the required patient information was not submitted within 30 days after receiving notice from the FDA of the failure to submit such information. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in revisions to the approved labeling to add new safety and risk information; imposition of a post-market study requirement to assess new safety risks; or implementation of a REMS that may include distribution or other restrictions.

The FDA closely regulates drug advertising and promotional activities, including promotion of an unapproved drug, directto-consumer advertising, dissemination of scientific information about a drug not on the approved labeling, off-label promotion, communications with payors and formulary committees, industry-sponsored scientific and educational activities, and promotional activities involving the internet and social media. A company's product claims must be true and not misleading, provide fair balance, provide adequate risk information, and be consistent with the product labeling approved by the FDA. Failure to comply with these requirements can lead to legal or regulatory actions including, among other things, warning letters, corrective advertising, injunction, violation and related penalties under the False Claims Act and can result in reputational and economic harm.

Physicians may prescribe FDA-approved drugs for uses that are not described in the product's labeling and that differ from those uses tested by the manufacturer. Such off-label uses occur across medical specialties. Physicians may believe that such off-label uses are the best treatment for many patients in varied circumstances. The FDA does not regulate the behavior of physicians in their choice of treatments for their individual patients. The FDA does, however, regulate manufacturers' communications about their drug products and interprets the Federal Food, Drug, and Cosmetic Act ("FFDCA") to prohibit pharmaceutical companies from promoting their FDA-approved drug products for uses that are not specified in the FDA-approved labeling. Companies that market drugs for off-label uses have been subject to warning letters, related costly litigation, criminal prosecution, and civil liability under the FFDCA and the False Claims Act.

In addition, the distribution of prescription pharmaceutical products is subject to the Prescription Drug Marketing Act ("PDMA"), as amended by the Drug Supply Chain Security Act, which regulates the distribution of drug and drug samples at the federal level, and sets minimum standards for the registration and regulation of wholesale drug distributors by the states.

Good Clinical Practices

The FDA and other regulatory agencies promulgate regulations and standards, commonly referred to as current Good Clinical Practices, for designing, conducting, monitoring, auditing and reporting the results of clinical trials to ensure that the data and results are accurate and that the trial participants are adequately protected. The FDA and other regulatory agencies enforce cGCP through periodic inspections of trial sponsors, principal investigators and trial sites. If our study sites fail to comply with applicable cGCP, the clinical data generated in our clinical trials may be deemed unreliable and relevant regulatory agencies may require us to perform additional clinical trials before approving our marketing applications.

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Good Manufacturing Practices

The FDA and other regulatory agencies regulate and inspect equipment, facilities and processes used in the manufacture of pharmaceutical and biological products prior to approving a product. If, after receiving approval from regulatory agencies, a company makes a material change in manufacturing equipment, location or process, additional regulatory review and approval may be required. All facilities and manufacturing techniques that may be used for the manufacture of our products must comply with applicable regulations governing the production of pharmaceutical products known as Good Manufacturing Practices.

Orphan Drug Act

Under the Orphan Drug Act, the FDA may grant orphan drug designation to drugs intended to treat a "rare disease or condition," which generally is a disease or condition that affects fewer than 200,000 individuals in the U.S. If a product which has an orphan drug designation subsequently receives the first FDA approval for that drug for the indication for which it has such designation, the product is entitled to orphan exclusivity, i.e., the FDA may not approve any other application submitted by a different applicant to market the same drug for the same indication for a period of seven years following marketing approval, except in certain very limited circumstances, such as if the later product is shown to be clinically superior to the approved product with orphan drug exclusivity. Legislation similar to the Orphan Drug Act has been enacted in other countries, including within the European Union.

Pediatric Marketing Use Authorization

The PUMA approval is typically granted by the European Commission, based on a review by the European Medicines Agency, and is intended exclusively for pediatric (patients under 18 years of age) use. Such PUMA approval is ultimately valid in all countries within the European Economic Area (which excludes the United Kingdom as of February 1, 2020).

The PUMA was introduced by the EU Paediatric Regulation for medicines that are:

- Normally contain an already authorized active ingredient;
- Are no longer covered by a supplementary protection certificate ("SPC") or a patent that qualifies for a SPC;
- Are to be exclusively developed for use in children.

The PUMA process was established to make it more efficient for pharmaceutical companies to invest in the development of drugs for children. PUMA drugs receive 8 plus 2 years of regulatory data and marketing protection. and the applications are, in part, exempt from fees. The regulatory protection does not prevent off-label use of other drugs with the same active substance and indication for adults, nor pharmacy compounding.

Other Laws

Our present and future business has been and will continue to be subject to various other laws and regulations. Various laws, regulations and recommendations relating to safe working conditions, laboratory practices, the experimental use of animals, and the purchase, storage, movement, import and export and use and disposal of hazardous or potentially hazardous substances, including radioactive compounds and infectious disease agents, used in connection with our research work are or may be applicable to our activities. Certain agreements entered into by us involving exclusive license rights may be subject to national or supranational antitrust regulatory control, the effect of which cannot be predicted. The extent of government regulation, which might result from future legislation or administrative action, cannot accurately be predicted.

Research and Development

Our research and development efforts have been focused on the development of PEDMARKTM since 2013.

We have established relationships with contract research organizations ("CROs"), universities and other institutions, which we utilize to perform many of the day-to-day activities associated with our drug development. Where possible, we have sought to include leading scientific investigators and advisors to enhance our internal capabilities. Research and development issues are reviewed internally by our executive management and supporting scientific team.

Research and development expenses totaled \$5.0 million and \$5.1 million for the fiscal years ended December 31, 2021 and 2020, respectively. We have decreased slightly our research and development expenses related to PEDMARKTM as our efforts have maintained over fiscal 2020 and 2021 with a mix of pre-commercialization activities with some continued regulatory and manufacturing expenses associated with the resubmission of the NDA for PEDMARKTM in response to the CRLs discussed above under the heading "Business – Overview – Product Candidate" and elsewhere in this Annual Report.

Our product candidate still requires significant, time-consuming and costly research and development, testing and regulatory clearances. In developing our product candidate, we are subject to risks of failure that are inherent in the development of products based on innovative technologies. For example, it is possible that our product candidate will be ineffective or toxic, or will otherwise fail to receive the necessary regulatory clearances. There is a risk that our product candidate will be uneconomical to manufacture or market or will not achieve market acceptance. There is also a risk that third parties may hold proprietary rights that preclude us from marketing our product candidate or that others will market a superior or equivalent product. As a result of these factors, we are unable to accurately estimate the nature, timing and future costs necessary to complete the development of this product candidate. In addition, we are unable to reasonably estimate the period when material net cash inflows could commence from the sale, licensing or commercialization of such product candidate, if ever.

Employees

At December 31, 2021, we had ten employees all of which are full time. In addition, we use independent contractors to perform certain of our daily operations.

Company Information

We incorporated under the Canada Business Corporations Act ("CBCA") in September 1996. In August 2011, we continued from the CBCA to the Business Corporations Act (British Columbia) (the "Continuance"). We have four wholly-owned subsidiaries: Oxiquant, Inc. and Fennec Pharmaceuticals, Inc., both Delaware corporations, Cadherin Biomedical Inc., a Canadian company, and Fennec Pharmaceuticals (EU) Limited ("Fennec Limited"), an Ireland company. With the exception of Fennec Pharmaceuticals, Inc., all subsidiaries are inactive.

Our corporate website is www.fennecpharma.com. We make our periodic and current reports, together with amendments to these reports, filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended ("Exchange Act"), available on our website, free of charge, as soon as reasonably practicable after such material is electronically filed with, or furnished to, the Securities and Exchange Commission ("SEC"). Members of the public may also read and copy any materials we file with, or furnish to, the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. To obtain information on the operation of the Public Reference Room, please call the SEC at 1-800-SEC-0330. The SEC maintains a website at www.sec.gov that contains the reports, proxy statements and other information that we file or furnish electronically with the SEC. The Canadian securities regulatory authorities maintain a website at www.sedar.com that contains our filings with the Canadian securities regulatory authorities. Our website and the information contained therein or connected thereto is not intended to be incorporated into this Annual Report or any other report or information we file with the SEC or Canadian securities regulatory authorities.

Item 1A. Risk Factors

An investment in our common shares involves a significant risk of loss. You should carefully read this entire Annual Report and should give particular attention to the following risk factors. You should recognize that other significant risks may arise in the future, which we cannot reasonably foresee at this time. Also, the risks that we now foresee might affect us to a greater or different degree than currently expected. There are a number of important factors that could cause our actual results to differ materially from those expressed or implied by any of our forward-looking statements in this

Annual Report. These factors include, without limitation, the risk factors listed below, and other factors presented throughout this Annual Report and any other documents filed by us with the SEC and the Canadian securities regulators on SEDAR.

Risk Factors Summary

The following is a summary of the principal risks that could adversely affect our business, operations, and financial results. A more thorough discussion of these and other risks follows this summary.

Risks Related to Our Business

- We have a history of significant losses and have generated de minimis licensing revenue and no revenue from the sale of products since our inception.
- PEDMARKTM is currently our only product candidate. PEDMARKTM is still in development and there is no assurance that it will receive regulatory approval or that we will successfully develop it into a commercially viable product.
- We may be required to conduct additional clinical trials for PEDMARKTM, which would be costly and timeconsuming to complete.
- We may require additional financing to obtain regulatory approval for and commercialize PEDMARKTM, and a failure to obtain this capital when needed on acceptable terms, or at all, could force us to delay, limit, reduce, or terminate our product development, other operations, or commercialization efforts.
- We are currently and may in the future be the target of securities litigation, which may be costly and timeconsuming to defend.
- Our business may be adversely affected by the ongoing COVID-19 pandemic.
- Our business involves environmental risks and potential exposure to environmental liabilities.

Risks Related to the Clinical Development and Marketing Approval of Our Product Candidate

- PEDMARKTM has not received marketing approval from the FDA or any comparable foreign authorities. These
 approval processes are costly, time-consuming, and inherently unpredictable, and it is possible that our
 applications for marketing approval will be denied.
- Our NDA for PEDMARKTM received a CRL from the FDA in August 2020 and in November 2021, which in each case identified deficiencies in the third-party manufacturing facility that manufactures PEDMARKTM on our behalf.

Risks Related to Commercialization of Our Product Candidate

- Even if we receive regulatory approvals for PEDMARKTM, it will still be subject to continued regulatory review and could be subject to labeling and other restrictions.
- Sales of PEDMARKTM, assuming it obtains regulatory approval, will depend on reimbursement by payers and these payers are subject to pressures to contain costs. In addition, coverage and reimbursement for PEDMARKTM may be limited or unavailable in certain market segments.
- PEDMARKTM targets diseases with small patient populations and we may not be effective at identifying patients.



- We may not be able to gain or maintain market acceptance of PEDMARKTM among the medical community, patients, or payers.
- If we fail to comply with applicable healthcare laws and regulations, we may be subject to investigations and civil or criminal penalties and could lose any regulatory approvals that we obtain for PEDMARKTM.
- We have just started to build our commercial team and have limited experience in commercializing pharmaceutical products.
- Changes in healthcare laws and regulations, as well as changes in healthcare policy, could adversely affect our business.
- PEDMARKTM may be subject to product liability claims.

Risks Related to Third Parties

• We rely on third parties to supply raw materials, to conduct clinical trials, and to manufacture PEDMARKTM. If these third parties fail to satisfactorily perform for us, or if they fail to comply with applicable legal and regulatory requirements, it could have a material adverse effect on our business. The above-referenced CRLs resulted from deficiencies identified by the FDA in the third-party manufacturing facility that manufactures PEDMARKTM on our behalf.

Risks Related to Our Intellectual Property

- PEDMARKTM is based on intellectual property exclusively licensed to us by OHSU, and the license is terminable in the event of a breach by us under the license agreement. If we were to lose our license from OHSU, we may be required to terminate any development and commercialization of PEDMARKTM.
- If we cannot obtain new patents, maintain our existing patents, and protect our trade secrets and other intellectual property, our business and competitive position may be harmed.
- Patent protection for PEDMARKTM may expire before we are able to realize its commercial value.
- We are currently and may in the future be the target of patent litigation, which may be costly and time-consuming to defend.
- Changes in United States patent law could diminish the value of patents in general, thereby impairing our ability to protect PEDMARKTM.
- If we are found to be infringing third-party patents, we may be forced to pay damages and/or obtain a license. If we cannot obtain a license, we may be prevented from the development, manufacture, or commercialization of PEDMARKTM.
- It is possible that we could lose market exclusivity for PEDMARKTM earlier than expected.

Risks Related to Our Industry

- Drug development involves a lengthy and expensive process with an uncertain outcome, and results of earlier studies and trials may not be predictive of future trial results.
- The biotechnology and pharmaceutical industry, and in particular the field of cancer therapeutics where we are focused, is highly competitive. We face significant competition from other pharmaceutical, biopharmaceutical, and biotechnology companies, many of which have significantly greater financial, technical, and human resources than we do and may be better equipped to develop, manufacture, and market products.

Risks Related to Owning Our Common Shares

- We may be unable to maintain the listing of our common shares on the Nasdaq Capital Market or the TSX, which would make it more difficult for shareholders to dispose of our common shares.
- The market price of our common shares is highly volatile and could cause the value of your investment to significantly decline.
- Our existing principal shareholders hold a substantial number of our common shares and may be able to exercise influence in matters requiring approval of our shareholders.
- There are a large number of our common shares underlying outstanding options, and reserved for issuance under our stock option plan, that may be sold in the market, which could depress the market price of our shares and result in substantial dilution to our shareholders.
- We may need to raise additional funds in the future to continue our operations. Any equity offering could result in significant dilution to our shareholders and decrease the value of our common shares. Any debt offering will increase our financial risk.
- We have not paid any dividends and do not anticipate declaring any dividends in the foreseeable future.
- We may be a passive foreign investment company, which could result in adverse United States federal income tax consequences to U.S. investors.

Risks Related to Our Business

We have a history of significant losses and have had no revenues to date through the sale of our products. If we do not generate significant revenues, we will not achieve profitability.

To date, we have been engaged primarily in research and development activities. We have had no revenues through the commercial sale of products, and we do not expect to have significant revenues until we are able to either sell our product candidate after obtaining applicable regulatory approvals or we establish collaborations that provide us with up-front payments, licensing fees, milestone payments, royalties or other revenue. We have incurred significant operating losses every year since our inception in September 1996. We reported a net loss of approximately \$17.2 million for the year ended December 31, 2021 and reported a net loss of approximately \$18.1 million for the year ended December 31, 2020. At December 31, 2021, we had an accumulated deficit of approximately \$179.5 million. We anticipate incurring substantial additional losses due to the need to spend substantial amounts on activities required for regulatory approval of PEDMARKTM, commercial launch preparation of PEDMARKTM, anticipated research and development activities, and general and administrative expenses, among other factors. We have not commercially introduced any products. Our ability to attain profitability will depend upon our ability to fund and develop products that are safe, effective and commercially viable, to obtain regulatory approval for the manufacture and sale of our product candidate and to license or otherwise market our product candidate successfully. Any revenues generated from such product, assuming it is successfully developed, marketed and sold, may not be realized for a number of years. We may never achieve or sustain profitability on an ongoing basis.

PEDMARKTM is currently our only product candidate and there is no assurance that we will successfully develop PEDMARKTM into a commercially viable product.

Since our formation in September 1996, we have engaged in research and development programs. We have generated no revenue from product sales, do not have any products currently available for sale, and none are expected to be commercially available for sale until we have completed regulatory approval of PEDMARKTM. PEDMARKTM is currently our only product candidate. There can be no assurance that the research we fund and manage will lead PEDMARKTM or any future product candidate to become a commercially viable product. We have completed two-Phase 3 studies for PEDMARKTM. We anticipate substantial regulatory review prior to the commercialization of PEDMARKTM.

We may require additional financing to obtain marketing approval of PEDMARKTM and commercialize PEDMARKTM and a failure to obtain this capital when needed on acceptable terms, or at all, could force us to delay, limit, reduce or terminate our product development, other operations or commercialization efforts.

Based on available resources, we believe that our cash and cash equivalents of \$21.1 million available as of December 31, 2021 are sufficient to fund our anticipated operating and capital requirements for at least the next 12 months, subject to approval of our NDA. Moreover, we expect to continue to incur losses for the foreseeable future as we continue our development of and seek marketing approvals for PEDMARKTM. We may not be able to obtain additional financing in sufficient amounts or on acceptable terms when needed. If we fail to arrange for sufficient capital on a timely basis, we may be required to curtail our business activities until we can obtain adequate financing. Debt financing must be repaid regardless of whether or not we generate profits or cash flows from our business activities. Equity financing may result in dilution to existing shareholders and may involve securities that have rights, preferences, or privileges that are senior to our common shares or other securities. If we cannot raise sufficient capital when necessary, we will likely have to curtail operations and you may lose part or all of your investment.

If we do not maintain current or enter into new collaborations with other companies, we might not successfully develop our product candidate or generate sufficient revenues to expand our business.

We currently rely on scientific and research and development collaboration arrangements with academic institutions and other third-party collaborators, including an exclusive worldwide license from OHSU for PEDMARKTM. We also rely on collaborators for testing PEDMARKTM, including SIOPEL and the Children's Oncology Group.

The agreements with OHSU are terminable by either party in the event of an uncured breach by the other party. We may also terminate our agreement with OHSU at any time upon prior written notice of specified durations to OHSU. Termination of any of our collaborative arrangements could materially adversely affect our business. For example, if we are unable to make the necessary payments under these agreements, the licensor might terminate the agreement which might have a material adverse impact. In addition, our collaborators might not perform as agreed in the future.

Since we conduct a significant portion of our research and development through collaborations, our success may depend significantly on the performance of such collaborators, as well as any future collaborators. Collaborators might not commit sufficient resources to the research and development or commercialization of our product candidate. Economic or technological advantages of products being developed by others, among other factors, could lead our collaborators to pursue other product candidates or technologies in preference to those being developed in collaboration with us. The commercial potential of, development stage of and projected resources required to develop our drug candidate will affect our ability to maintain current collaborations or establish new collaborators. There is a risk of dispute with respect to ownership of technology developed under any collaboration. Our management of any collaboration will require significant time and effort as well as an effective allocation of resources. We may not be able to simultaneously manage a large number of collaborations. Any of these negative impacts on our current or future collaborations could have a material adverse effect on our business and results of operations.

Our product candidate is still in development. Due to the long, expensive and unpredictable drug development process, we might not ever successfully develop and commercialize our product candidate.

In order to achieve profitable operations, we, alone or in collaboration with others, must successfully fund, develop, manufacture, introduce and market our product candidate. The time necessary to achieve market success for any individual product is long and uncertain. Our product candidate and research programs are in clinical development and require significant, time-consuming and costly research, testing and regulatory clearances. In developing our product candidate, we are subject to risks of failure that are inherent in the development of therapeutic products based on innovative technologies. The results of preclinical and initial clinical trials are not necessarily predictive of future results. Our product candidate might not be economical to manufacture or market or might not achieve market acceptance. In addition, third parties might hold proprietary rights that preclude us from marketing our product candidate or others might market equivalent or superior products.

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We may need to conduct additional human clinical trials to assess our product candidate. If these trials are delayed or are unsuccessful, our development costs will significantly increase, and our business prospects may suffer.

Before obtaining regulatory approvals for the commercial sale of our product candidate, we must demonstrate, through preclinical studies with animals and clinical trials with humans, that our product candidate is safe and effective for use in each target indication. To date, we have performed only limited clinical trials. Much of our testing has been conducted on animals or on human cells in the laboratory, and the benefits of treatment seen in animals or on human cells in a laboratory setting may not ultimately be obtained in human clinical trials. As a result, we may need to perform significant additional research and development activities and conduct extensive preclinical and clinical testing prior to any application for commercial use. We may suffer significant setbacks in additional clinical trials, and the trials may demonstrate our product candidate to be unsafe or ineffective. We may also encounter problems in our clinical trials that will cause us to delay, suspend or terminate those clinical trials, which would increase our development costs and harm our financial results and commercial prospects. Identifying and qualifying patients to participate in clinical trials of our potential products is critically important to our success. The timing of our clinical trials depends on, among other things, the speed at which we can recruit patients to participate in testing our product candidate. We have experienced delays in some of our clinical trials and we may experience significant delays in the future. If patients are unwilling to participate in our trials because of competing clinical trials for similar patient populations, perceived risk or any other reason, the timeline for recruiting patients, conducting trials and obtaining regulatory approval of potential products will be delayed. Other factors that may result in significant delays include obtaining regulatory or ethics review board approvals for proposed trials, reaching agreement on acceptable terms with prospective clinical trial sites, and obtaining sufficient quantities of drugs for use in the clinical trials. Such delays could result in the termination of the clinical trials altogether.

Regulatory approval of our product candidate is time-consuming, expensive and uncertain, and could result in unexpectedly high expenses and delay our ability to sell our product.

Development, manufacture and marketing of our product is subject to extensive regulation by governmental authorities in the United States and other countries. This regulation could require us to incur significant unexpected expenses or delay or limit our ability to sell our product candidate. Our clinical studies might be delayed or halted, or additional studies might be required, for various reasons, including:

- there is a lack of sufficient funding;
- the drug is not effective;
- patients experience severe side effects during treatment;
- appropriate patients do not enroll in the studies at the rate expected;
- drug supplies are not sufficient to treat the patients in the studies; or
- we decide to modify the drug during testing.

If regulatory approval of our product is granted, it will be limited to those indications for which the product has been shown to be safe and effective, as demonstrated to the satisfaction of the FDA and foreign regulators through clinical studies. Furthermore, approval might entail ongoing requirements for post-marketing studies. Even if regulatory approval is obtained, labeling and promotional activities are subject to continual scrutiny by the FDA and state and foreign regulatory agencies and, in some circumstances, the Federal Trade Commission. FDA enforcement policy prohibits the marketing of approved products for unapproved, or off-label, uses. These regulations and the FDA's interpretation of them might impair our ability to effectively market our product.

We and our third-party manufactures are also required to comply with the applicable cGMP regulations, which include requirements relating to quality control and quality assurance, as well as the corresponding maintenance of records and documentation. Further, manufacturing facilities, which we outsource to third parties, must be approved by the FDA before they can be used to manufacture our product, and they are subject to additional FDA inspection. The CRL that we received from the FDA in August, 2020 and in November, 2021 as a result of deficiencies in the third-party

manufacturing facility that manufactures PEDMARKTM on our behalf is a specific example of the risks associated with our third-party manufacturers.

If we fail to comply with any of the FDA's continuing regulations, or any other regulations under which we may be required to comply outside of the United States, we could be subject to reputational harm and sanctions, including:

- delays, warning letters and fines;
- product recalls or seizures and injunctions on sales;
- refusal of the FDA, or other regulators, to review pending applications;
- total or partial suspension of production;
- withdrawals of previously approved marketing applications; and
- civil penalties and criminal prosecutions.

In addition, identification of side effects after a drug is on the market or the occurrence of manufacturing problems could cause subsequent withdrawal of approval, reformulation of the drug, additional testing or changes in labeling of the product.

We may be unable to effectively deploy the proceeds from our recent financings for the development of PEDMARKTM.

On May 5, 2020, we announced the completion of an underwritten public offering of 4.8 million of our common shares at a public offering price of \$6.25 per share. In addition, we issued an additional 0.66 million common shares in connection with the partial exercise of the underwriters' over-allotment option. The approximate total gross proceeds from the offering were \$34.1 million (\$32.2 million net of commissions, fees and issue costs). Any inability on our part to manage effectively the deployment of this capital could limit our ability to successfully develop PEDMARKTM.

If our licenses to proprietary technology owned by others are terminated or expire, we may suffer increased development costs and delays, and we may not be able to successfully develop our product candidate.

The development of our drug candidate and the manufacture and sale of any products that we develop will involve the use of processes, products and information, some of the rights to which are owned by others. PEDMARKTM is licensed under agreements with OHSU. Although we have obtained licenses or rights with regard to the use of certain processes, products and information, the licenses or rights could be terminated or expire during critical periods and we may not be able to obtain, on favorable terms or at all, licenses or other rights that may be required. Some of these licenses provide for limited periods of exclusivity that may be extended only with the consent of the licensor, which may not be granted.

If we are unable to adequately protect or maintain our patents and licenses related to our product candidate, or if we infringe upon the intellectual property rights of others, we may not be able to successfully develop and commercialize our product candidate.

The value of our technology will depend in part upon our ability, and those of our collaborators, to obtain patent protection or licenses to patents, maintain trade secret protection and operate without infringing on the rights of third parties. Although we have successfully pursued patent applications in the past, it is possible that:

- some or all of our pending patent applications, or those we have licensed, may not be allowed;
- proprietary products or processes that we develop in the future may not be patentable;
- any issued patents that we own or license may not provide us with any competitive advantages or may be successfully challenged by third parties; or

• the patents of others may have an adverse effect on our ability to do business.

It is not possible for us to be certain that we are the original and first creator of inventions encompassed by our pending patent applications or that we were the first to file patent applications for any such inventions. Further, any of our patents, once issued, may be declared by a court to be invalid or unenforceable.

PEDMARKTM is currently protected by methods of use patent that we exclusively licensed from OHSU that expires in the United States in 2038 and a patent owned by us that expires in 2039. Further, patents are currently pending in the United States and other territories. In addition, periods of marketing exclusivity for PEDMARKTM may also be possible in the United States under orphan drug status and in Europe under PUMA.

We may be required to obtain licenses under patents or other proprietary rights of third parties, but the extent to which we may wish or need to do so is unknown. Any such licenses may not be available on terms acceptable to us or at all. If such licenses are obtained, it is likely they would be royalty bearing, which would reduce our future income, if any. If licenses cannot be obtained on an economical basis, we could suffer delays in market introduction of planned products or their introduction could be prevented, in some cases after the expenditure of substantial funds. If we do not obtain such licenses, we would have to attempt to design around patents of third parties, potentially causing increased costs and delays in product development and introduction or precluding us from developing, manufacturing or selling our planned products, or our ability to develop, manufacture or sell products requiring such licenses could be foreclosed.

Litigation may also be necessary to enforce or defend patents issued or licensed to us or our collaborators or to determine the scope and validity of a third party's proprietary rights. We could incur substantial costs if litigation is required to defend ourselves in patent suits brought by third parties, if we participate in patent suits brought against or initiated by our collaborators, or if we initiate such suits. We might not prevail in any such action. An adverse outcome in litigation or an interference to determine priority or other proceeding in a court or patent office could subject us to significant liabilities, require disputed rights to be licensed from other parties or require us or our collaborators to cease using certain technology or products. Any of these events would likely have a material adverse effect on our business, financial condition and results of operations.

Much of our technological know-how that is not patentable may constitute trade secrets. Our confidentiality agreements might not provide for meaningful protection of our trade secrets, know-how or other proprietary information in the event of any unauthorized use or disclosure of information. In addition, others may independently develop or obtain similar technology and may be able to market competing products and obtain regulatory approval through a showing of equivalency to our product that has obtained regulatory approvals, without being required to undertake the same lengthy and expensive clinical studies that we would have already completed.

The vulnerability to off-label use or sale of our product candidate that are covered only by "method of use" patents may cause downward pricing pressure on the product candidate if they are ever commercialized and may make it more difficult for us to enter into collaboration or partnering arrangements for the development of this product candidate.

PEDMARKTM is currently covered by "method of use" patent and "composition of matter" patent. "Method of use" patents cover the use of certain compounds to treat specific conditions and "composition of matter" patents cover the chemical composition of the compound. Method of use patents provide less protection than composition of matter patents because of the possibility of off-label competition if other companies develop or market the compound for other uses. If another company markets a drug that we expect to market under the protection of a method of use patent, physicians may prescribe the other company's drug for use in the indication for which we obtain approval and have a patent, even if the other company's drug is not approved for such an indication. Off-label use and sales could limit our sales and exert pricing pressure on any product we develop covered only by method of use patents. Also, it may be more difficult to find a collaborator to license or support the development of our product candidate that is only covered by method of use patents.

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If our third-party manufacturers breach or terminate their agreements with us, or if we are unable to secure arrangements with third party manufacturers on acceptable terms as needed in the future, we may suffer significant delays and additional costs.

We have no experience manufacturing products and do not currently have the resources to manufacture any products that we may develop. We currently have agreements with contract manufacturers for clinical supplies of PEDMARKTM, including drug substance providers and drug product suppliers, but they might not perform as agreed in the future or may terminate our agreements with them before the end of the required term. Significant additional time and expense would be required to effect a transition to a new contract manufacturer.

We plan to continue to rely on contract manufacturers for the foreseeable future to produce quantities of products and substances necessary for research and development, preclinical trials, human clinical trials and product commercialization, and to perform their obligations in a timely manner and in accordance with applicable government regulations. If we develop any product with commercial potential, we will need to develop the facilities to independently manufacture such product or products or secure arrangements with third parties to manufacture them. We may not be able to independently develop manufacturing capabilities or obtain favorable terms for the manufacture of our product. While we intend to contract for the commercial manufacture of our product candidate, we may not be able to identify and qualify contractors or obtain favorable contracting terms. We or our contract manufacturers may also fail to meet required manufacturing standards, which could result in delays or failures in product delivery, increased costs, injury or death to patients, product recalls or withdrawals and other problems that could significantly hurt our business. The CRL that we received from the FDA in August 2020 and November 2021as a result of deficiencies in the third-party manufacturing facility that manufactures PEDMARKTM on our behalf is a specific example of the risks associated with our third-party manufacturers. We intend to maintain a second source for back-up commercial manufacturing, wherever feasible. However, if a replacement to our future internal or contract manufacturers were required, the ability to establish second-sourcing or find a replacement manufacturer may be difficult due to the lead times generally required to manufacture drugs and the need for FDA compliance inspections and approvals of any replacement manufacturer, all of which factors could result in production delays and additional commercialization costs. Such lead times would vary based on the situation but might be twelve months or longer.

We may lack the resources necessary to effectively market our product candidate, and we may need to rely on third parties over whom we have little or no control and who may not perform as expected.

We may not have the necessary resources to market our product candidate. If we develop any products with commercial potential, we will either have to develop a marketing capability, including a sales force, which is difficult and expensive to implement successfully, or attempt to enter into a collaboration, merger, joint venture, license or other arrangement with third parties to provide a substantial portion of the financial and other resources needed to market such products. We may not be able to do so on acceptable terms, if at all. If we rely extensively on third parties to market our products, the commercial success of such products may be largely outside of our control.

We conduct our business internationally and are subject to laws and regulations of several countries which may affect our ability to access regulatory agencies and may affect the enforceability and value of our licenses.

We have conducted clinical trials in the United States, Canada, Europe and the Pacific Rim and intend to, or may, conduct future clinical trials in these and other jurisdictions. There can be no assurance that any sovereign government will not establish laws or regulations that will be deleterious to our interests. There is no assurance that we, as a British Columbia corporation, will continue to have access to the regulatory agencies in any jurisdiction where we might want to conduct clinical trials or obtain regulatory approval, and we might not be able to enforce our licenses or patent rights in foreign jurisdictions. Foreign exchange controls may have a material adverse effect on our business and financial condition, since such controls may limit our ability to flow funds into or out of a particular country to meet obligations under licenses, clinical trial agreements or other collaborations.

Our cash invested in money market funds might be subject to loss.

Even though we believe we take a conservative approach to investing our funds, the nature of financial markets exposes us to investment risk, including the risks that the value and liquidity of our money market investments (the amounts of which substantially exceed the \$250,000 amount insured by the FDIC) could deteriorate significantly and the issuers of

the investments we hold could be subject to credit rating downgrades. While we have not experienced any loss or write down of our money market investments in the past, we cannot guarantee that such losses will not occur in future periods.

Should the clinical development process be successfully completed, our ability to derive revenues from the sale of therapeutics will depend upon our first obtaining FDA as well as foreign regulatory approvals, all of which are subject to a number of unique risks and uncertainties.

Even if we are able to demonstrate the safety and efficacy of our product candidate in clinical trials, if we fail to gain timely approval to commercialize PEDMARKTM from the FDA and other foreign regulatory authorities, we will be unable to generate the revenues we will need to build our business. The FDA or comparable regulatory authorities in other countries may delay, limit or deny approval of PEDMARKTM for various reasons. For example, such authorities may disagree with the design, scope or implementation of our clinical trials; or with our interpretation of data from our preclinical studies or clinical trials; or may otherwise take the position that PEDMARKTM fails to meet the requirements and standards for regulatory approval. There are numerous FDA personnel assigned to review different aspects of a NDA, and uncertainties can be presented by their ability to exercise judgment and discretion during the review process. During the course of review, the FDA may request or require additional preclinical, clinical, chemistry, manufacturing, and control ("CMC"), or other data and information, and the development and provision of these data and information may be time consuming and expensive. Regulatory approvals may not be granted on a timely basis, if at all, and even if and when they are granted, they may not cover all the indications for which we seek approval.

On February 10, 2020, we submitted an NDA to the FDA for PEDMARKTM for the prevention of ototoxicity associated with cisplatin chemotherapy in pediatric patients ≥ 1 month to 18 years of age with localized, non-metastatic, solid tumors. On April 10, 2020, we received notification from the FDA that the NDA was accepted for filing and the original application was granted Priority Review with a PDUFA target action date of August 10, 2020. On August 10, 2020, we received a CRL from the FDA. According to the CRL, after recent completion of a pre-approval inspection of the manufacturing facility of our drug product manufacturer, the FDA identified deficiencies that are required to be resolved prior to the approval of PEDMARKTM. In May 2021, we announced the resubmission of our NDA for PEDMARKTM and in June 2021 we further announced that the FDA accepted for filing the resubmission of our NDA and set a PDUFA target action date of November 27, 2021. On November 29, 2021, we received a CRL from the FDA. Similar to the previous CRL, after recent completion of a pre-approval inspection of the manufacturing facility of our drug product manufacturer, the FDA identified deficiencies that are required to be resolved prior to the approval of PEDMARK[™]. We anticipate resubmitting an NDA in the first quarter of 2022. If the FDA determines based on the inspection by FDA officials and do not recommend approval relative to the drug product manufacturing facility, or if information deemed necessary by the FDA cannot be provided as part of our NDA submission or during the review period as deemed appropriate on a timely basis, such events could further delay the progress of our NDA and could require additional actions that we cannot complete during the review period, which may adversely impact our business. If our NDA for PEDMARKTM is ultimately not approved by the FDA, we would not be able to commercialize PEDMARKTM, which would have a material adverse effect on our business.

Further, while we may develop a product candidate with the intention of addressing a large, unmet medical need, the FDA may only approve the use of the drug for indications affecting a relatively small number of patients, thus greatly reducing the market size and our potential revenues. The approvals may also contain significant limitations in the form of warnings, precautions or contraindications with respect to conditions of use, which could further narrow the size of the market. In certain countries, even if the health regulatory authorities approve a drug, it cannot be marketed until pricing for the drug is also approved. Finally, even after approval can be obtained, we may be required to recall or withdraw a product as a result of newly discovered safety or efficacy concerns, either of which would have a materially adverse effect on our business and results of operations.

We are currently and may in the future be the target of securities litigation, which may be costly and timeconsuming to defend.

Following periods of market volatility in the price of a company's securities or the reporting of unfavorable news, security purchasers have often instituted class action litigation. This risk is especially relevant for us because pharmaceutical companies like us have experienced significant stock price volatility in recent years. Specifically, we were named in putative securities class action complaints as a result of the decline in our stock price following the August 10, 2020 announcement that we had received a CRL from the FDA regarding our NDA for PEDMARK[™] and as result of the decline in our stock price following the November 29, 2021 announcement that we expected to receive

another CRL from the FDA regarding our NDA for PEDMARKTM. Regardless of the outcome of this or future litigation, we could incur substantial legal costs and our management's attention could be diverted from the operation of our business, causing our business to suffer. Our insurance coverage may be insufficient to cover all legal fees, judgments or settlements. If the outcome of any such litigation is unfavorable, it could result in us paying significant damages or settlement payments, which could have a material adverse effect on our financial condition.

There are limitations on the liability of our directors, and we may have to indemnify our officers and directors in certain instances.

Our articles limit, to the maximum extent permitted under British Columbia law, the personal liability of our directors for monetary damages for breach of their fiduciary duties as directors. Our articles provide that we will indemnify our officers and directors and may indemnify our employees and other agents to the fullest extent permitted by law. These provisions may be in some respects broader than the specific indemnification provisions under British Columbia law. The indemnification provisions may require us, among other things, to indemnify such officers and directors against certain liabilities that may arise by reason of their status or service as directors or officers (other than liabilities arising from willful misconduct of a culpable nature), to advance their expenses incurred as a result of certain proceedings against them as to which they could be indemnified and to obtain directors' and officers' insurance.

We believe that our limitation of officer and director liability assists us to attract and retain qualified employees and directors. However, in the event an officer, a director or the board of directors commits an act that may legally be indemnified under British Columbia law, we will be responsible to pay for such officer(s) or director(s) legal defense and potentially any damages resulting there from. Furthermore, the limitation on director liability may reduce the likelihood of derivative litigation against directors and may discourage or deter stockholders from instituting litigation against directors for breach of their fiduciary duties, even though such an action, if successful, might benefit our stockholders and us. Given the difficult environment and potential for incurring liabilities currently facing directors of publicly-held corporations, we believe that director indemnification is in our and our stockholders' best interests because it enhances our ability to attract and retain highly qualified directors and reduce a possible deterrent to entrepreneurial decision-making.

Nevertheless, limitations of director liability may be viewed as limiting the rights of stockholders, and the broad scope of the indemnification provisions contained in our certificate of incorporation and bylaws could result in increased expenses. Our board of directors believes, however, that these provisions will provide a better balancing of the legal obligations of, and protections for, directors and will contribute positively to the quality and stability of our corporate governance. Our board of directors has concluded that the benefit to stockholders of improved corporate governance outweighs any possible adverse effects on stockholders of reducing the exposure of directors to liability and broadened indemnification rights.

Our business and operations could be adversely affected by the effects of health epidemics, including the ongoing COVID-19 pandemic.

The COVID-19 pandemic is affecting the operations of government entities, such as the FDA, as well as contract research organizations, third-party manufacturers, and other third-parties upon whom we rely. As a result of "shelter-in-place" orders, quarantines or similar orders or restrictions to control the spread of COVID-19, many companies, including our own, have implemented work-from-home policies for their employees. The effects of these stay at home orders and work-from-home policies may negatively impact productivity, resulting in delays in our product launch. The extent of the impact on our operations depends in part on the time these restrictions remain in place, and whether restrictions are reinstated as a result of a rising surge in COVID-19 cases. These and similar disruptions in our operations could negatively impact our business, operating results and financial condition. Possible effects may include, but are not limited to, disruption to our product launch, which includes the ability of sales reps to communicate with oncologists, absenteeism in our labor workforce, unavailability of products and supplies used in operations, and a decline in value of our assets, including inventories, property and equipment, and marketable securities.

The spread of COVID-19 has also led to disruption and volatility in the global capital markets, which increases the cost of, and adversely impacts access to capital and increases economic uncertainty. To the extent the COVID-19 pandemic adversely affects our business, financial results and value of our common shares, it may also affect our ability to access

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capital and obtain financing, which could in the future negatively affect our liquidity and ability to continue as a going concern.

The global pandemic of COVID-19 continues to evolve rapidly, and the ultimate impact of the COVID-19 pandemic or a similar health epidemic is highly uncertain and subject to change. We do not yet know the full impact of potential delays or effects on our business, our clinical trials, our ability to access the capital markets, or supply chains or on the global economy as a whole. However, these effects could have a material impact on our operations, and we will continue to monitor the COVID-19 situation closely.

Natural disasters, epidemic or pandemic disease outbreaks, trade wars, political unrest or other events could disrupt our business or operations or those of our development partners, manufacturers, regulators or other third parties with whom we conduct business now or in the future.

A wide variety of events beyond our control, including natural disasters, epidemic or pandemic disease outbreaks (such as the COVID-19 pandemic), trade wars, political unrest or other events, could disrupt our business or operations or those of our manufacturers, regulatory authorities, or other third parties with whom we conduct business. These events may cause businesses and government agencies to be shut down, supply chains to be interrupted, slowed, or rendered inoperable, and individuals to become ill, quarantined, or otherwise unable to work and/or travel due to health reasons or governmental restrictions. These limitations could negatively affect our business operations and continuity, and could negatively impact our development timelines and ability to timely perform basic business functions, including, without limitation, making SEC filings and preparing financial reports. If our operations or those of third parties with whom we conduct business are impaired or curtailed as a result of these events, the development and commercialization of our products and product candidate could be impaired or halted, which could have a material adverse impact on our business.

Risks Related to the Clinical Development and Marketing Approval of Our Product Candidate

The marketing approval processes of the FDA and comparable foreign authorities are lengthy, time-consuming and inherently unpredictable, and if we are ultimately unable to obtain marketing approval for our product candidate, our business will be substantially harmed.

Our current product candidate has not gained marketing approval for sale in the United States or any other country, and we cannot guarantee that we will ever have any marketable products. Our business is substantially dependent on our ability to complete the development of, obtain marketing approval for, and successfully commercialize our product candidate in a timely manner. We cannot commercialize our product candidate in the United States without first obtaining approval from the FDA to market our product candidate. Similarly, we cannot commercialize our product candidate outside of the United States without obtaining regulatory approval from comparable foreign regulatory authorities. Our product candidate could fail to receive marketing approval for many reasons, including the following:

- the FDA or comparable foreign regulatory authorities may disagree with the design or implementation of our clinical trials;
- the FDA or comparable foreign regulatory authorities may find the human subject protections for our clinical trials inadequate and place a clinical hold on an IND at the time of its submission precluding commencement of any trials or a clinical hold on one or more clinical trials at any time during the conduct of our clinical trials;
- the FDA could determine that we cannot rely on Section 505(b)(2) of the FFDCA for our product candidate;
- we may be unable to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that a product candidate is safe and effective for its proposed indication;
- the results of clinical trials may not meet the level of statistical significance required by the FDA or comparable foreign regulatory authorities for approval;
- we may be unable to demonstrate that a product candidate's clinical and other benefits outweigh its safety risks;

- the FDA or comparable foreign regulatory authorities may disagree with our interpretation of data from preclinical studies or clinical trials;
- the FDA could determine that our application relies, or must rely, upon a listed drug or drugs that we a failed to identify or that approval of our 505(b)(2) application for our product candidate is blocked by patent or non-patent exclusivity of the listed drug or drugs;
- the data collected from clinical trials of our product candidate may not be sufficient to obtain marketing approval in the United States or elsewhere;
- the FDA or comparable foreign regulatory authorities may find inadequate the manufacturing processes or facilities of third-party manufacturers with which we contract for clinical and commercial supplies (for example, see the discussion elsewhere concerning the CRL we received from the FDA in August, 2020); and
- the approval policies or regulations of the FDA or comparable foreign regulatory authorities may significantly change in a manner that would delay marketing approval.

Before obtaining marketing approval for the commercial sale of any drug product for a target indication, we must demonstrate in preclinical studies and well-controlled clinical trials and, with respect to approval in the United States, to the satisfaction of the FDA, that the product is safe and effective for its intended use and that the manufacturing facilities, processes, and controls are adequate to preserve the drug's identity, strength, quality and purity. In the United States, it is necessary to submit and obtain approval of an NDA from the FDA. An NDA must include extensive preclinical and clinical data and supporting information to establish the product's safety and efficacy for each desired indication. The NDA must also include significant information regarding the chemistry, manufacturing, and controls for the product. After the submission of an NDA, but before approval of the NDA, the manufacturing facilities used to manufacture a product candidate generally must be inspected by the FDA to ensure compliance with the applicable cGMP requirements (for example, see the discussion elsewhere concerning the CRL we received from the FDA in August, 2020). The FDA and the Competent Authorities of the Member States of the European Economic Area, or EEA, and comparable foreign regulatory authorities, may also inspect our clinical trial sites and audit clinical study data to ensure that our studies are properly conducted in accordance with the IND regulations, human subject protection regulations, cGCP.

Obtaining approval of an NDA is a lengthy, expensive and uncertain process, and approval may not be obtained. Upon submission of an NDA, the FDA must make an initial determination that the application is sufficiently complete to accept the submission for filing. We cannot be certain that any submissions will be accepted for filing and reviewed by the FDA, or ultimately be approved. If the application is not accepted for review, the FDA may require that we conduct additional clinical studies or preclinical testing, or take other actions before it will reconsider our application. If the FDA requires additional studies or data, we would incur increased costs and delays in the marketing approval process, which may require us to expend more resources than we have available. In addition, the FDA might not consider any additional information to be complete or sufficient to support the filing or approval of the NDA.

Regulatory authorities outside of the United States, such as in Europe and Japan and in emerging markets, also have requirements for approval of drugs for commercial sale with which we must comply prior to marketing in those areas. Regulatory requirements can vary widely from country to country and could delay or prevent the introduction of our product candidate. Clinical trials conducted in one country may not be accepted or the results may not be found adequate by regulatory authorities in other country. However, the failure to obtain regulatory approval in one jurisdiction could have a negative impact on our ability to obtain approval in a different jurisdiction. Approval processes vary among countries and can involve additional product candidate testing and validation and additional administrative review periods. Seeking foreign regulatory approval could require additional non-clinical studies or clinical trials, which could be costly and time-consuming. Foreign regulatory approval may include all of the risks associated with obtaining FDA approval. For all of these reasons, we may not obtain foreign regulatory approvals on a timely basis, if at all.

The process to develop, obtain marketing approval for, and commercialize product candidates is long, complex and costly, both inside and outside of the United States, and approval is never guaranteed. The time required to obtain approval by the FDA and comparable foreign authorities is unpredictable but typically takes many years following the

commencement of clinical trials and depends upon numerous factors, including the substantial discretion of the regulatory authorities. In addition, approval policies, regulations, or the type and amount of clinical data necessary to gain approval may change during the course of a product candidate's clinical development and may vary among jurisdictions. Even if our product candidate were to successfully obtain approval from regulatory authorities, any such approval might significantly limit the approved indications for use, including more limited patient populations, require that precautions, warnings or contraindications be included on the product labeling, including black box warnings, require expensive and timeconsuming post-approval clinical studies, risk evaluation and mitigation strategies or surveillance as conditions of approval, or, through the product label, the approval may limit the claims that we may make, which may impede the successful commercialization of our product candidate. Following any approval for commercial sale of our product candidate, certain changes to the product, such as changes in manufacturing processes and additional labeling claims, as well as new safety information, may require new studies and will be subject to additional FDA notification, or review and approval. Also, marketing approval for any of our product candidate may be withdrawn. If we are unable to obtain marketing approval for our product candidate in one or more jurisdictions, or any approval contains significant limitations, our ability to market to our full target market will be reduced and our ability to realize the full market potential of our product candidate will be impaired. Furthermore, we may not be able to obtain sufficient funding or generate sufficient revenue and cash flows to continue or complete the development of any of our current or future product candidates.

Our risk of delay in product approvals is increased if the United States government is fully or partially shut down due to lack of continuity in funding.

Our business operations, and particularly the timing of the outcome of review of our NDA filing for marketing approval of PEDMARKTM, are directly and indirectly affected by the operations of the United States government, including but not limited to the FDA. Any interruption in the continuity of funding of all or a part of government activities could have a significant negative effect on our business, including the timing of that review decision. The United States government shuts down from time to time, most recently from December 22, 2018 to January 25, 2019. We cannot predict the likelihood, duration, impact, or timing of any future shutdown. There can be no assurance that if such shutdown(s) were to occur in the future, adequate funds would be available to the FDA and other U.S. government agencies to allow them to continue their activities uninterrupted. Even when funding is restored following one or more shutdowns, we cannot predict the ongoing impact of such shutdowns on our business, or the degree to which funding would be restored to the FDA or other agencies having an impact on our business.

If we are unable to submit an application for approval under Section 505(b)(2) of the FFDCA or if we are required to generate additional data related to safety and efficacy in order to obtain approval under Section 505(b)(2), we may be unable to meet our anticipated development and commercialization timelines.

Our current strategy for seeking marketing authorization in the United States for our product candidate relies primarily on Section 505(b)(2) of the FFDCA, which permits use of a marketing application, referred to as a 505(b)(2) application, where at least some of the information required for approval comes from studies not conducted by or for the applicant and for which the applicant has not obtained a right of reference or use. The FDA interprets this to mean that an applicant may rely for approval on such data as that found in published literature or the FDA's finding of safety or effectiveness, or both, of a previously approved drug product owned by a third party. There is no assurance that the FDA would find the published literature or third-party data relied upon by us in a 505(b)(2) application sufficient or adequate to support approval, and the FDA may require us to generate additional data to support the safety and efficacy of our product candidate. Consequently, we may need to conduct substantial new research and development activities beyond those we currently plan to conduct. Such additional new research and development activities would be costly and time-consuming and there is no assurance that such data generated from such additional activities would be sufficient to obtain approval.

If the data to be relied upon in a 505(b)(2) application are related to drug products previously approved by the FDA and covered by patents that are listed in the FDA's Orange Book, we would be required to submit with our 505(b) (2) application an appropriate patent certification or statement. The type of patent certification that would enable us to obtain approval of our application before a listed patent expires, known as a Paragraph IV Certification, would require us to certify that we do not infringe the listed patent or that such patent is invalid or unenforceable. We would be required to provide timely notice to the patent owner and the holder of the approved NDA. If a patent infringement action is initiated against us within 45 days from receipt of our Paragraph IV Certification, the approval of our NDA

would be subject to a stay of up to 30 months or more while we defend against such a suit. Approval of our product candidate under Section 505(b)(2) may, therefore, be delayed until patent exclusivity expires or until we successfully challenge those patents. Alternatively, we may elect to generate sufficient clinical data so that we would no longer need to rely on third-party data, which would be costly and time-consuming and there would be no assurance that such data generated from such additional activities would be sufficient to obtain approval.

We may not be able to obtain shortened review of our applications, and the FDA may not agree that our product candidate qualifies for marketing approval. If we are required to generate additional data to support approval, we may be unable to meet anticipated or reasonable development and commercialization timelines, may be unable to generate the additional data at a reasonable cost, or at all, and may be unable to obtain marketing approval of our product candidate. If the FDA changes its interpretation of Section 505(b)(2) allowing reliance on data in published literature or a previously approved drug application owned by a third party, or there is a change in the law affecting Section 505(b)(2), this could delay or even prevent the FDA from approving any Section 505(b)(2) application that we submit.

Even if we receive marketing approval for our product candidate, such approved products will be subject to ongoing obligations and continued regulatory review, which may result in significant additional expense. Additionally, our product candidate, if approved, could be subject to labeling and other restrictions, and we may be subject to penalties and legal sanctions if we fail to comply with regulatory requirements or experience unanticipated problems with our approved products.

If the FDA approves our product candidate, the manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion and recordkeeping for the product will be subject to extensive and ongoing regulatory requirements. These requirements include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance with cGMP regulations and cGCP for any clinical trials that we conduct post-approval. Any marketing approvals that we receive for our product candidate may also be subject to limitations on the approved indicated uses for which the product may be marketed or to conditions of approval, or contain requirements for potentially costly post-marketing testing, including Phase 4 clinical trials, and surveillance to monitor safety and efficacy.

Later discovery of previously unknown problems with an approved product, including adverse events of unanticipated severity or frequency, or with manufacturing operations or processes, or failure to comply with regulatory requirements, or evidence of acts that raise questions about the integrity of data supporting the product approval, may result in, among other things:

- restrictions on the marketing or manufacturing of the product, withdrawal of the product from the market, or voluntary or mandatory product recalls;
- fines, warning letters, or holds on clinical trials;
- refusal by the FDA to approve pending applications or supplements to approved applications filed by us, or suspension or revocation of product approvals;
- product seizure or detention, or refusal to permit the import or export of products; and
- injunctions or the imposition of civil or criminal penalties.

The FDA's policies may change, and additional government regulations may be enacted that could prevent, limit or delay marketing approval, manufacturing or commercialization of our product candidate. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or we are not able to maintain regulatory compliance, we may lose any marketing approval that may have been obtained and we may not achieve or sustain profitability, which would adversely affect our business.

Agencies like the FDA and national competition regulators in European countries regulate the promotion and uses of drugs not consistent with approved product labeling requirements. If we are found to have improperly promoted our current product candidate for uses beyond those that are approved, we may become subject to significant liability.

Regulatory authorities like the FDA and national competition laws in Europe strictly regulate the promotional claims that may be made about prescription products, such as PEDMARKTM, if approved. In particular, a product may not be promoted for uses that are not approved by the FDA or comparable foreign regulatory authorities as reflected in the product's approved labeling, known as "off-label" use, nor may it be promoted prior to obtaining marketing approval. If we receive marketing approval for our product candidate for our proposed indications, physicians may nevertheless use our products for their patients in a manner that is inconsistent with the approved label if the physicians personally believe in their professional medical judgment it could be used in such manner. Although physicians may prescribe legally available drugs for off-label uses, manufacturers may not market or promote such off-label uses.

In addition, the FDA requires that promotional claims not be "false or misleading" as such terms are defined in the FDA's regulations. For example, the FDA requires substantial evidence, which generally consists of two adequate and well-controlled head-to-head clinical trials, for a company to make a claim that its product is superior to another product in terms of safety or effectiveness. Generally, unless we perform clinical trials meeting that standard comparing our product candidate to competitive products and these claims are approved in our product labeling, we will not be able promote our current product candidate as superior to other products. If we are found to have made such claims, we may become subject to significant liability. In the United States, the federal government has levied large civil and criminal fines against companies for alleged improper promotion and has enjoined several companies from engaging in improper promotion. The FDA has also requested that companies enter into consent decrees or corporate integrity agreements. The FDA could also seek permanent injunctions under which specified promotional conduct is monitored, changed or curtailed.

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

Healthcare providers, physicians and third-party payors in the United States and elsewhere will play a primary role in the recommendation and prescription of our drug candidates if it obtains marketing approval. Our current and future arrangements with healthcare professionals, investigators, consultants, collaborators, actual customers, potential customers and third-party payors may expose us to broadly applicable fraud and abuse and other healthcare laws, including, without limitation, the federal Anti-Kickback Statute and the federal False Claims Act, that may constrain the business or financial arrangements and relationships through which we sell, market and distribute any drug candidates for which we obtain marketing approval. In addition, we may be subject to physician payment transparency laws and patient privacy and security regulation by the federal government and by the U.S. states and foreign jurisdictions in which we conduct our business. The applicable federal, state and foreign healthcare laws that may affect our ability to operate include the following:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons from knowingly and willfully
 soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or
 reward, or in return for, either the referral of an individual for, or the purchase, lease, order or recommendation of,
 any good, facility, item or service, for which payment may be made, in whole or in part, under federal and state
 healthcare programs such as Medicare and Medicaid;
- federal civil and criminal false claims laws and civil monetary penalty laws, including the federal False Claims
 Act, which impose criminal and civil penalties, including civil whistleblower or qui tam actions, against
 individuals or entities for, among other things, knowingly presenting, or causing to be presented, to the federal
 government, including the Medicare and Medicaid programs, claims for payment that are false or fraudulent or
 making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government;

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- the civil monetary penalties statute, which imposes penalties against any person or entity who, among other things, is determined to have presented or caused to be presented a claim to a federal health program that the person knows or should know is for an item or service that was not provided as claimed or is false or fraudulent;
- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which created new federal criminal statutes that prohibit 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 of the money or property owned by, or under the custody or control of, any healthcare benefit program, regardless of the payor (e.g., public or private), knowingly and willfully embezzling or stealing from a healthcare benefit program, willfully obstructing a criminal investigation of a healthcare offense and knowingly and willfully falsifying, concealing or covering up by any trick or device a material fact or making any materially false statements in connection with the delivery of, or payment for, healthcare benefits, items or services relating to healthcare matters;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, and its implementing regulations, which impose obligations on covered entities, including healthcare providers, health plans, and healthcare clearinghouses, as well as their respective business associates that create, receive, maintain or transmit individually identifiable health information for or on behalf of a covered entity, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;
- the federal Open Payments program, created under Section 6002 of the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or the Affordable Care Act, and its implementing regulations, which imposed annual reporting requirements for manufacturers of drugs, devices, biologicals and medical supplies for certain payments and "transfers of value" provided to physicians and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members, where failure to submit timely, accurately and completely the required information for all covered payments, transfers of value and ownership or investment interests may result in civil monetary penalties; and
- analogous state and foreign laws, such as state anti-kickback and false claims laws, which may apply to sales or
 marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental
 third-party payors, including private insurers; state laws that require pharmaceutical companies to comply with
 the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance
 promulgated by the federal government or otherwise restrict payments that may be made to healthcare providers;
 state and foreign laws that require drug manufacturers to report information related to payments and other
 transfers of value to physicians and other healthcare providers or marketing expenditures; and state and foreign
 laws governing the privacy and security of health information in certain circumstances, many of which differ
 from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

Further, the Affordable Care Act, among other things, amended the intent requirement of the federal Anti-Kickback Statute and certain criminal statutes governing healthcare fraud. A person or entity no longer needs to have actual knowledge of the statute or specific intent to violate it. In addition, the Affordable Care Act provided that the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the False Claims Act.

Efforts to ensure that our future business arrangements with third parties will comply with applicable healthcare laws and regulations may involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, including, without limitation, damages, fines, imprisonment, exclusion from participation in government healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations, which could significantly harm our business. If any of the physicians or other healthcare providers or entities with whom we expect to do business, including our current and future collaborators, if any, are found not to be in compliance with applicable laws, those persons or

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entities may be subject to criminal, civil or administrative sanctions, including exclusion from participation in government healthcare programs, which could also affect our business.

The impact of recent healthcare reform legislation and other changes in the healthcare industry and healthcare spending on us is currently unknown and may adversely affect our business model.

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

Our revenue prospects could be affected by changes in healthcare spending and policy in the United States and abroad. We operate in a highly regulated industry and new laws and judicial decisions, or new interpretations of existing laws or decisions, related to healthcare availability, the method of delivery or payment for healthcare products and services could negatively impact our business, financial condition, results of operations and prospects. There is significant interest in promoting healthcare reform. Among other things, healthcare reform may contain provisions that may reduce the profitability of drug products, including, for example, revising the methodology by which rebates owed by manufacturers for covered outpatient drugs under the Medicaid Drug Rebate Program are calculated, extending the Medicaid Drug Rebate Program to utilization of prescriptions of individuals enrolled in Medicaid managed care plans, imposing mandatory discounts for certain Medicare Part D beneficiaries, and subjecting drug manufacturers to payment of an annual fee.

We expect that 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 our product if it is approved for marketing. 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 or commercialize our drugs.

It is likely that federal and state legislatures within the United States and foreign governments will continue to consider changes to existing healthcare legislation. We cannot predict the reform initiatives that may be adopted in the future or whether initiatives that have been adopted will be repealed or modified. The continuing efforts of the government, insurance companies, managed care organizations and other payors of healthcare services to contain or reduce costs of healthcare may adversely affect:

- the demand for our product candidate;
- our ability to set a price that we believe is fair for our product candidate;
- our ability to obtain coverage and reimbursement approval for our product candidate;
- our ability to generate revenues and achieve or maintain profitability; and
- the level of taxes that we are required to pay.

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 have a material adverse effect on our business, financial condition or results of operations.

Our research and development activities and our third-party manufacturers' and suppliers' activities involve the controlled storage, use, and disposal of hazardous materials, including the components of our product candidate and other hazardous compounds. We and our manufacturers and suppliers are subject to laws and regulations governing the use, manufacture, storage, handling, and disposal of these hazardous materials. In some cases, these hazardous materials and various wastes resulting from their use are stored at our and our manufacturers' facilities pending their use and disposal. We cannot eliminate the risk of contamination, which could cause an interruption of our commercialization efforts, research and development efforts and business operations, environmental damage resulting in costly clean-up and liabilities under applicable laws and regulations governing the use, storage, handling, and disposal of these materials and specified waste products. Although we believe that the safety procedures utilized by us and our third-party

manufacturers for handling and disposing of these materials generally comply with the standards prescribed by these laws and regulations, we cannot guarantee that this is the case or eliminate the risk of accidental contamination or injury from these materials. In such an event, we may be held liable for any resulting damages and such liability could exceed our resources and state or federal or other applicable authorities may curtail our use of specified materials and/or interrupt our business operations. Furthermore, environmental laws and regulations are complex, change frequently, and have tended to become more stringent. We cannot predict the impact of such changes and cannot be certain of our future compliance. We do not currently carry biological or hazardous waste insurance coverage.

Risks Related to Commercialization of Our Product Candidate

Even if we obtain the required regulatory approvals in the United States and other territories, the commercial success of our product candidate will depend on market awareness and acceptance of our product candidates.

Even if we obtain marketing approval for PEDMARKTM, it may not gain market acceptance among physicians, key opinion leaders, healthcare payors, patients and the medical community. Market acceptance of PEDMARKTM depends on a number of factors, including:

- the timing of market introduction;
- its efficacy and safety, as demonstrated in clinical trials;
- the clinical indications for which it is approved, and the label approved by regulatory authorities for use with the product, including any precautions, warnings or contraindications that may be required on the label;
- acceptance by physicians, key opinion leaders and patients of PEDMARKTM as a safe and effective treatment;
- the cost, safety and efficacy of treatment in relation to alternative treatments;
- the availability of coverage and adequate reimbursement and pricing by third-party payors and government authorities;
- the number and clinical profile of competing products;
- the growth of drug markets in our various indications;
- relative convenience and ease of administration;
- marketing and distribution support;
- the prevalence and severity of adverse side effects; and
- the effectiveness of our sales and marketing efforts.

Market acceptance is critical to our ability to generate revenue. PEDMARKTM, if approved and commercialized, may be accepted in only limited capacities or not at all. If PEDMARKTM is not accepted by the market to the extent that we expect, we may not be able to generate revenue and our business would suffer.

If the market opportunities for our product candidate are smaller than we believe they are, then our revenues may be adversely affected, and our business may suffer.

The market opportunities that our product candidate is being developed to address are rare. Our projections of both the number of people who are administered Cisplatin, as well as the subset of people who have the potential to benefit from treatment with our product candidate, and our assumptions relating to pricing are based on estimates. Given the small number of patients that we are targeting, our eligible patient population and pricing estimates may differ significantly from the actual market addressable by our product candidate.

Coverage and reimbursement may be limited or unavailable in certain market segments for our product candidate, which could make it difficult for us to sell our products profitably.

There is significant uncertainty related to third-party coverage and reimbursement of newly approved pharmaceuticals. Market acceptance and sales of our product candidate, should it receive marketing approval, will depend significantly on the availability of coverage and adequate reimbursement from third-party payors and may be affected by existing and future healthcare reform measures. Patients who are prescribed treatments for their conditions and providers performing the prescribed services generally rely on third-party payors to reimburse all or part of the associated healthcare costs. Government authorities and third-party payors, such as private health insurers, health maintenance organizations, and government payors like Medicare and Medicaid, decide which drugs they will pay for and establish reimbursement levels. Increasingly, third-party payors are requiring that drug companies provide them with predetermined discounts from list prices and are challenging the prices charged for drugs and products. Coverage and reimbursement may not be available for any product that we commercialize and, even if coverage is provided, the level of reimbursement may not be satisfactory. Inadequate reimbursement levels may adversely affect the demand for, or the price of, our drug candidate if it obtains marketing approval.

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

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

Obtaining coverage and adequate reimbursement approval for a product from a government or other third-party payor is a time consuming and costly process that could require us to conduct expensive pharmacoeconomic studies and provide supporting scientific, clinical and cost-effectiveness data for the use of our product to the payor. We may not be able to provide data sufficient to gain acceptance with respect to coverage and adequate reimbursement. In addition to examining the medical necessity and cost-effectiveness of new products, coverage may be limited to specific drug products on an approved list, or formulary, which might not include all of the FDA-approved drug products for a particular indication. There may also be formulary placements that result in lower reimbursement levels and higher cost-sharing borne by patients, any of which could have an adverse effect on our revenues and profits. Moreover, a third-party payor's decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Adequate third-party reimbursement may not be available to enable us to maintain price levels sufficient to realize an appropriate return on our investment in product development. Additionally, coverage and reimbursement for drug products can differ significantly from payor to payor. One third-party payor's decision to cover a particular drug product does not ensure that other payors will also provide coverage for the drug product, or even if coverage is available, establish an adequate reimbursement rate.

We cannot be sure that coverage or adequate reimbursement will be available for our product candidate. Also, we cannot be sure that reimbursement amounts will not reduce the demand for, or the price of, our product. If reimbursement is not available or is available only to limited levels, we may not be able to commercialize certain of our products. In the United States, third-party payors are increasingly attempting to contain healthcare costs by limiting both coverage and the level of reimbursement of new drugs. Third-party payors are increasingly challenging the prices charged for medical products and services, examining the medical necessity and reviewing the cost-effectiveness of drug products and medical services and questioning safety and efficacy. As a result, significant uncertainty exists as to whether and how much third-party payors will reimburse patients for their use of newly approved drugs, which in turn will put pressure on the pricing of drugs. Additionally, emphasis on managed care in the United States has increased and we expect will continue to increase the pressure on drug pricing. If third-party payors do not consider our product to be cost-effective compared to other available therapies, they may not cover our product or, if they do, the level of payment may not be sufficient to allow us to sell our product at a profit.

Coverage policies, third-party reimbursement rates and drug pricing regulation may change at any time, and there is the potential for significant movement in these areas in the foreseeable future. Even if favorable coverage and reimbursement status is attained for our product, less favorable coverage policies and reimbursement rates may be implemented in the future.

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

The life sciences industry is highly competitive, and we face significant competition from many pharmaceutical, biopharmaceutical and biotechnology companies that are generally developing and marketing therapeutic products. Such competition may include large pharmaceutical and biotechnology companies, specialty pharmaceutical and generic companies and medical technology companies. Our future success depends on our ability to demonstrate and maintain a competitive advantage with respect to the design, development and commercialization of our product candidate for the treatment of orphan and ultra-orphan diseases for which there is a small patient population in both the United States and in all other potential markets. A drug designated an orphan drug may receive up to seven years of exclusive marketing in the United States for that indication.

Many of our potential competitors have significantly greater financial, manufacturing, marketing, development, technical and human resources than we do. Large pharmaceutical and biotechnology companies, in particular, have extensive experience in clinical testing, obtaining regulatory approvals, recruiting patients and in manufacturing clinical products. These companies also have significantly greater research and marketing capabilities than we do and may also have products that have been approved or are in late stages of development, and have collaborative arrangements in our target markets with leading companies and research institutions. Established companies may also invest heavily to accelerate discovery and development of compounds that could make our product candidate obsolete. As a result of all of these factors, maintaining orphan drug designation for our product candidate is essential to our viability since our competitors may, among other things:

- have greater name and brand recognition, financial, manufacturing, marketing, development, technical and human resources;
- develop and commercialize products that are safer, more effective, less expensive, or more convenient or easier to administer;
- obtain quicker marketing approval;
- establish superior proprietary positions;
- have access to more manufacturing capacity as well as to more cost-effective manufacturing capacity;
- implement more effective approaches to sales and marketing; or
- form more advantageous strategic alliances.

Should any of these events occur, our business, financial condition, results of operations, and prospects could be materially adversely affected. If we are not able to compete effectively against potential competitors, our business will not grow and our financial condition and operations will suffer.

We believe that our ability to successfully compete will depend on our ability to maintain orphan drug designation as well as:

- our ability to design and successfully execute appropriate clinical trials;
- our ability to recruit and enroll patients for our clinical trials;
- the results of our clinical trials and the efficacy and safety of our product candidate;

- the speed at which we develop our product candidate;
- achieving and maintaining compliance with regulatory requirements applicable to our business;
- the timing and scope of regulatory approvals, including labeling;
- adequate levels of reimbursement under private and governmental health insurance plans, including Medicare and Medicaid;
- our ability to protect intellectual property rights related to our product candidate;
- our ability to commercialize and market our product candidate if it obtains marketing approval;
- our ability to manufacture and sell commercial quantities of any approved our product candidate;
- acceptance of our product candidate by physicians, other healthcare providers and patients; and
- the cost of treatment in relation to alternative therapies.

If our competitors are able to obtain orphan drug exclusivity for their products that are for the same indication as our product candidate, we may not be able to have our product approved by the applicable regulatory authority for a significant period of time or benefit from that exclusivity.

We have orphan drug designation in the United States for PEDMARKTM for the prevention of platinum induced ototoxicity in pediatric patients.

Generally, if a product with an orphan drug designation subsequently receives the first marketing approval for the indication for which it has such designation, that product is entitled to a period of marketing exclusivity, which precludes the applicable regulatory authority from approving another marketing application for the same drug for the same indication for that time period. The applicable period is seven years in the United States with the potential for an additional six months under pediatric orphan drug status. Maintaining orphan drug designation for PEDMARKTM may be important to its success. Even with orphan drug designation, we may not be able to maintain it. For example, if a competitive product that treats the same disease as our product candidate is shown to be clinically superior to our product candidate, any orphan drug designation we have obtained will not block the approval of such competitive product and we may effectively lose what had previously been orphan drug designation. Orphan drug designation for PEDMARKTM also will not bar the FDA from approving another STS drug product for another indication. In the United States, reforms to the Orphan Drug Act, if enacted, could also materially affect our ability to maintain orphan drug designation for PEDMARKTM for cisplatin induced ototoxicity in pediatric cancer.

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

In some countries, particularly member states of the European Union, the pricing of prescription drugs is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after receipt of marketing approval for a product. In addition, there can be considerable pressure by governments and other stakeholders on prices and reimbursement levels, including as part of cost containment measures. Political, economic and regulatory developments may further complicate pricing negotiations, and pricing negotiations may continue after reimbursement has been obtained. Reference pricing used by various European Union member states and parallel distribution, or arbitrage between low-priced and high-priced member states, can further reduce prices. In some countries, we may be required to conduct a clinical trial or other studies that compare the cost-effectiveness of our product candidate to other available therapies in order to obtain or maintain reimbursement or pricing approval. Publication of discounts by third-party payors or authorities may lead to further pressure on the prices or reimbursement levels within the country of publication and other countries. If reimbursement of our products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our business could be adversely affected.

Rapid technological change could make our products obsolete.

Pharmaceutical technologies have undergone rapid and significant change, and we expect that they will continue to do so. As a result, there is significant risk that our product candidate may be rendered obsolete or uneconomical by new discoveries before we recover any expenses incurred in connection with their development. If our product candidate is rendered obsolete by advancements in pharmaceutical technologies, our prospects will suffer.

We face a risk of product liability claims and may not be able to obtain adequate insurance.

Our business exposes us to potential liability risks that may arise from the clinical testing, manufacture, and/or sale of our pharmaceutical products. Patients have received substantial damage awards in some jurisdictions against pharmaceutical companies based on claims for injuries allegedly caused by the use of pharmaceutical products used in clinical trials or after FDA approval. Liability claims may be expensive to defend and may result in large judgments against us. We currently carry liability insurance that we believe to be adequate. However, our insurance may not reimburse us for certain claims or the coverage may not be sufficient to cover claims made against us. We cannot predict all of the possible harms or side effects that may result from the use of our drug candidate and, therefore, the amount of insurance coverage we currently hold may not be adequate to cover all liabilities we might incur. If we are sued for any injury allegedly caused by our products, our liability could exceed our ability to pay the liability. Whether or not we are ultimately successful in any adverse litigation, such litigation could consume substantial amounts of our financial and managerial resources, all of which could have a material adverse effect on our business, financial condition, results of operations, prospects and stock price.

Risks Related to Third Parties

We rely on third-party suppliers and other third parties for production of our product candidate and our dependence on these third parties may impair the advancement of our research and development programs and the development of our product candidate.

We do not currently own or operate manufacturing facilities for clinical or commercial production of our product candidate. We lack the resources and the capability to manufacture our product candidate on a clinical or commercial scale. Instead, we rely on, and expect to continue to rely on, third parties for the supply of raw materials and manufacture of drug supplies necessary to conduct our preclinical studies and clinical trials. Our reliance on third parties may expose us to more risk than if we were to manufacture our current product candidate or other products ourselves. Delays in production by third parties could delay our clinical trials or have an adverse impact on any commercial activities. In addition, the fact that we are dependent on third parties for the manufacturing defects that we have limited ability to prevent or control. Although we oversee these activities to ensure compliance with our quality standards, budgets and timelines, we have had and will continue to have less control over the manufacturing of our product candidate than potentially would be the case if we were to manufacture our product candidate. Further, the third parties we deal with could have staffing difficulties, might undergo changes in priorities or may become financially distressed, which would adversely affect the manufacturing and production of our product candidate. In addition, a third party could be acquired by, or enter into an exclusive arrangement with, one of our competitors, which would adversely affect our ability to access the formulations we require.

The facilities used by our current contract manufacturers and any future manufacturers to manufacture our product candidate must be inspected by the FDA during the review of our NDA. We do not control the manufacturing process of, and are completely dependent on, our contract manufacturers for compliance with the regulatory requirements, known as cGMP, for manufacture of both active drug substances and finished drug products. If our contract manufacturers cannot successfully manufacture material that conforms to our specifications and the strict regulatory requirements of the FDA or others, the FDA may refuse to approve our NDA. The CRLs that we received from the FDA in August 2020 and November 2021, as a result of deficiencies in the third-party manufacturing facility that manufactures PEDMARKTM on our behalf is a specific example of the risks associated with our third-party manufacturers. If the FDA or a comparable foreign regulatory authority does not approve our NDA because of concerns about the manufacture of our product candidate or if significant manufacturing issues arise in the future, we may need to find alternative manufacturing facilities, which would significantly impact our ability to develop our product candidate, to obtain marketing approval of our NDA or to continue to market our product candidate, if approved. Although we are ultimately responsible for

ensuring compliance with these regulatory requirements, we do not have day-to-day control over a contract manufacturing organization ("CMO") or other third-party manufacturer's compliance with applicable laws and regulations, including cGMP and other laws and regulations, such as those related to environmental health and safety matters. Any failure to achieve and maintain compliance with these laws, regulations and standards could subject us to the risk that we may have to suspend the manufacturing of our product candidate or that obtained approvals could be revoked, which would adversely affect our business and reputation. In addition, third-party contractors, such as our CMOs, may elect not to continue to work with us due to factors beyond our control. Although we have contracts in place, they may also refuse to work with us because of their own financial difficulties, business priorities or other reasons, at a time that is costly or otherwise inconvenient for us. If we were unable to find adequate replacement or another acceptable solution in time, our clinical trials could be delayed or our commercial activities could be harmed.

On August 10, 2020, we received a CRL. According to the CRL, after recent completion of a pre-approval inspection of the manufacturing facility of our drug product manufacturer, the FDA identified deficiencies resulting in a Form 483, which is a list of conditions or practices that are required to be resolved prior to the approval of PEDMARK[™]. Similarly, on November 29, 2021, we received another CRL due to a pre-approval inspection of the manufacturing facility of our drug product manufacturer in which the FDA again identified deficiencies resulting in a Form 483, which is a list of conditions or practices that are required to be resolved prior to the approval of PEDMARK[™]. We anticipate resubmitting an NDA in the first quarter of 2022. If the FDA determines based on the inspection by FDA officials and do not recommend approval relative to the drug product manufacturing facility, or if information deemed necessary by the FDA cannot be provided as part of our NDA submission or during the review period as deemed appropriate on a timely basis, such events could further delay the progress of our NDA and could require additional actions that we cannot complete during the review period, which may adversely impact our business. If our NDA for PEDMARKTM is ultimately not approved by the FDA, we would not be able to commercialize PEDMARKTM, which would have a material adverse effect on our business.

Problems with the quality of the work of third parties may lead us to seek to terminate our working relationships and use alternative service providers. However, making this change may be costly and may delay clinical trials. In addition, it may be very challenging, and in some cases impossible, to find replacement service providers that can develop and manufacture our drug candidates in an acceptable manner and at an acceptable cost and on a timely basis. The sale of products containing any defects or any delays in the supply of necessary services could adversely affect our business, financial condition, results of operations, and prospects.

Growth in the costs and expenses of components or raw materials may also adversely affect our business, financial condition, results of operations, and prospects. Supply sources could be interrupted from time to time and, if interrupted, supplies may not be resumed (whether in part or in whole) within a reasonable timeframe and at an acceptable cost or at all.

We plan to rely on third parties to conduct clinical trials for our product candidate. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, it may cause delays in commencing and completing clinical trials of our product candidate or we may be unable to obtain marketing approval for or commercialize our product candidate.

Clinical trials must meet applicable FDA and foreign regulatory requirements. We do not have the ability to independently conduct clinical trials for our product candidate. We expect to rely on third parties, such as CROs, medical institutions, clinical investigators and contract laboratories, to conduct all of our clinical trials of our product candidate; however, we remain responsible for ensuring that each of our clinical trials is conducted in accordance with our investigational plan and protocol. Moreover, the FDA and other foreign regulatory authorities require us to comply with IND and human subject protection regulations and cGCP standards, for conducting, monitoring, recording, and reporting the results of clinical trials to ensure that the data and results are scientifically credible and accurate and that the trial subjects are adequately informed of the potential risks of participating in clinical trials. Our reliance on third parties does not relieve us of these responsibilities and requirements. Regulatory authorities enforce these cGCP through periodic inspections of trial sponsors, principal investigators and trial sites. If we or any of our third-party contractors fail to comply with applicable cGCP, the clinical data generated in our clinical trials may be deemed unreliable and the FDA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. There is no assurance that upon inspection by a given regulatory authority, such regulatory

authority will determine that any of our clinical trials comply with cGCP. Our failure to comply with these regulations may require us to repeat clinical trials, which would delay the marketing approval process.

There are significant requirements imposed on us and on clinical investigators who conduct clinical trials that we sponsor. Although we are responsible for selecting qualified CROs or clinical investigators, providing them with the information they need to conduct the clinical trials properly, ensuring proper monitoring of the clinical trials, and ensuring that the clinical trials are conducted in accordance with the general investigational plan and protocols contained in the IND, we cannot ensure that the CROs or clinical investigators will maintain compliance with all regulatory requirements at all times. The pharmaceutical industry has experienced cases where clinical investigators have been found to incorrectly record data, omit data, or even falsify data. We cannot ensure that the CROs or clinical investigators in our trials will not make mistakes or otherwise compromise the integrity or validity of data, any of which would have a significant negative effect on our ability to obtain marketing approval, our business, and our financial condition.

We or the third parties we rely on may encounter problems in clinical trials that may cause us or the FDA or foreign regulatory agencies to delay, suspend or terminate our clinical trials at any phase. These problems could include the possibility that we may not be able to manufacture sufficient quantities of materials for use in our clinical trials, conduct clinical trials at our preferred sites, enroll a sufficient number of patients for our clinical trials at one or more sites, or begin or successfully complete clinical trials in a timely fashion, if at all. Furthermore, we, the FDA or foreign regulatory agencies may suspend clinical trials of our product candidate at any time if we or they believe the subjects participating in the trials are being exposed to unacceptable health risks, whether as a result of adverse events occurring in our trials or otherwise, or if we or they find deficiencies in the clinical trial process or conduct of the investigation.

The FDA and foreign regulatory agencies could also require additional clinical trials before or after granting of marketing approval for any products, which would result in increased costs and significant delays in the development and commercialization of such products and could result in the withdrawal of such products from the market after obtaining marketing approval. Our failure to adequately demonstrate the safety and efficacy of a product candidate in clinical development could delay or prevent obtaining marketing approval of the product candidate and, after obtaining marketing approval, data from post-approval studies could result in the product being withdrawn from the market, either of which would likely have a material adverse effect on our business.

Risks Related to Our Intellectual Property

We are dependent on our relationships and license agreements, and we rely upon the patent rights granted to us pursuant to the license agreements.

Our commercial success will depend in large part on our ability to use patents and regulatory exclusivity to exclude others from competing with our products. The patent position of emerging pharmaceutical companies like us can be highly uncertain and involve complex legal and technical issues. Until our licensed patents are interpreted by a court, either because we have sought to enforce them against a competitor or because a competitor has preemptively challenged them, we will not know the breadth of protection that they will afford us. Our patents may not contain claims sufficiently broad to prevent others from practicing our technologies or marketing competing products. Third parties may intentionally attempt to design around our patents or design around our patents so as to compete with us without infringing our patents. Moreover, the issuance of a patent is not conclusive as to its validity or enforceability, and so our patents may be invalidated or rendered unenforceable if challenged by others.

As a result of the foregoing factors, we cannot be certain how much protection from competition patent rights will provide us.

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

While we are not currently aware of any third-party patents which we may infringe, there can be no assurance that we do not or will not infringe on patents held by third parties or that third parties will not claim that we have infringed on their patents. In the event that our technologies infringe or violate the patent or other proprietary rights of third parties, we may be prevented from pursuing product development, manufacturing or commercialization of our products that utilize such technologies. There may be patents held by others of which we are unaware that contain claims that our products or

operations infringe. In addition, given the complexities and uncertainties of patent laws, there may be patents of which we are aware that we may ultimately be held to infringe, particularly if the claims of the patent are determined to be broader than we believe them to be. Adding to this uncertainty, in the United States, patent applications filed in recent years are confidential for 18 months, while older applications are not publicly available until the patent issues. As a result, avoiding patent infringement may be difficult.

If a third-party claims that we infringe its patents, any of the following may occur:

- we may be required to pay substantial financial damages if a court decides that our technologies infringe a competitor's patent, which can be tripled if the infringement is deemed willful, or be required to discontinue or significantly delay development, marketing, selling and licensing of our product and intellectual property rights;
- a court may prohibit us from selling or licensing our product without a license from the patent holder, which may not be available on commercially acceptable terms or at all, or which may require us to pay substantial royalties or grant cross-licenses to our patents; and
- we may have to redesign our product so that it does not infringe others' patent rights, which may not be possible or could require substantial funds or time and require additional studies.

In addition, employees, consultants, contractors and others may use the proprietary information of others in their work for us or disclose our proprietary information to others. If our employees, consultants, contractors or others disclose our data to others or use data belonging to others in connection with our business, it could lead to disputes over the ownership of inventions derived from that information or expose us to potential damages or other penalties.

The occurrence of any of these events could have a material adverse effect on our business, financial condition, results of operations or prospects.

We may incur substantial costs as a result of litigation or other proceedings relating to patent and other intellectual property rights.

There is substantial history of litigation and other proceedings regarding patent and intellectual property rights in the pharmaceutical industry. We may be forced to defend claims of infringement brought by our competitors and others, and we may institute litigation against others who we believe are infringing our intellectual property rights. The outcome of intellectual property litigation is subject to substantial uncertainties and may, for example, turn on the interpretation of claim language by the court, which may not be to our advantage, or on the testimony of experts as to technical facts upon which experts may reasonably disagree.

As discussed above under the heading "Business – Overview – Product Candidate," on October 29, 2021, Hope Medical Enterprises, Inc. ("Hope") filed two petitions for inter partes review ("IPR") with the Patent Trial and Appeal Board ("PTAB") of the USPTO. In its petitions, Hope seeks to invalidate our U.S. Patent No. 10,596,190 ("US '190"), which is exclusively in-licensed from Oregon Health & Science University ("OHSU") and relates to a method of using our PEDMARKTM product, and our U.S. Patent No. 10,792,363 ("US '363"), which relates to an anhydrous form of STS, which is the active pharmaceutical ingredient in our PEDMARKTM product. US '190 was issued on March 24, 2020. US '363 was issued on October 6, 2020. We filed preliminary responses to the petitions in February 2022, and thereafter, the PTAB has three months to decide whether to institute IPR proceedings. If the PTAB institutes one or both reviews, the final written decision(s) will be due about one year after the PTAB's decision to institute IPR proceedings, and following additional submissions by the parties. Any appeals of a PTAB decision would delay any final outcome. We plan to vigorously defend our intellectual property rights related to PEDMARKTM. However, we are unable to predict the outcome of these petitions, and an invalidation of one or both of these patents may have a material adverse effect on our ability to protect our rights in PEDMARKTM beyond the market exclusivity granted from Orphan Drug Designation and PUMA.

On January 11, 2022, our licensor OHSU filed a Request for Supplemental Examination of US '190 requesting the consideration by the USPTO of certain prior art references, including references cited by Hope in its Petition for IPR that are relevant to the granted claim of the patent. On January 28, 2022, the USPTO found that the cited references constitute a substantial new question of patentability and ordered an ex parte reexamination of the single US '190 claim

of pursuant to 35 U.S.C. § 257. We are unable to predict the outcome of the *ex parte* reexamination. If the USPTO does not uphold the '190 claim as granted or in amended form, our ability to protect our PEDMARKTM product beyond the market exclusivity granted from Orphan Drug Designation and PUMA may be adversely affected.

Under our license agreements, we have the right to bring legal action against any alleged infringers of the patents we license. However, we are responsible for all costs relating to such potential litigation. We have the right to any proceeds received as a result of such litigation, but, even if we are successful in such litigation, there is no assurance we would be awarded any monetary damages.

Our involvement in intellectual property litigation could result in significant expense to us. Some of our competitors have considerable resources available to them and may have a strong economic incentive to undertake substantial efforts to stop or delay us from commercializing our product. Moreover, regardless of the outcome, intellectual property litigation against or by us could significantly disrupt our development and commercialization efforts, divert our management's attention and quickly consume our financial resources.

In addition, if third parties file patent applications or issue patents claiming technology that is also claimed by us in pending applications, we may be required to participate in interference proceedings with the USPTO or in other proceedings outside the United States, including oppositions, to determine priority of invention or patentability. Even if we are successful in these proceedings, we may incur substantial costs, and the time and attention of our management and scientific personnel will be diverted from product development or other more productive matters.

Our proprietary rights may not adequately protect our technologies and product candidate.

Our commercial success will depend in part on our ability to obtain patents and protect our existing patent position as well as our ability to maintain adequate protection of other intellectual property for our technologies, product candidate, and any future products in the United States and other countries. If we do not adequately protect our intellectual property, competitors may be able to use our technologies and erode or negate any competitive advantage we may have, which could harm our business and ability to achieve profitability. The laws of some foreign countries do not protect our proprietary rights to the same extent or in the same manner as United States laws, and we may encounter significant problems in protecting and defending our proprietary rights in these countries. We will be able to protect our proprietary rights from unauthorized use by third parties only to the extent that our proprietary technologies and product candidate are covered by valid and enforceable patents or are effectively maintained as trade secrets.

We apply for patents covering both our technologies and product candidate, as we deem appropriate. However, we may fail to apply for patents on important technologies or product candidate in a timely fashion, or at all. Our existing patents and any future patents we obtain may not be sufficiently broad to prevent others from practicing our technologies or from developing competing products and technologies. We cannot be certain that our patent applications will be approved or that any patents issued will adequately protect our intellectual property.

While we are responsible for and have control over the filing and prosecuting of patent applications and maintaining patents which cover making, using or selling PEDMARKTM, we may lose any such rights if we decide to allow any licensed patent to lapse. If we fail to appropriately prosecute and maintain patent protection for any of our product candidate, our ability to develop and commercialize those product candidate may be adversely affected and we may not be able to prevent competitors from making, using and selling competing products.

Moreover, the patent positions of pharmaceutical companies are highly uncertain and involve complex legal and factual questions for which important legal principles are evolving and remain unresolved. As a result, the validity and enforceability of patents cannot be predicted with certainty. In addition, we do not know whether:

- we or our licensors were the first to make the inventions covered by each of our issued patents and pending patent applications;
- we or our licensors were the first to file patent applications for these inventions;

- any of the patents that cover our product candidate will be eligible to be listed in the FDA's compendium of "Approved Drug Products with Therapeutic Equivalence Evaluation," sometimes referred to as the FDA's Orange Book;
- others will independently develop similar or alternative technologies or duplicate any of our technologies;
- any of our or our licensors' pending patent applications will result in issued patents;
- any patents issued to us or our licensors and collaborators will provide us with any competitive advantages, or will be challenge by third parties;
- we will develop additional proprietary technologies that are patentable;
- the United States government will exercise any of its statutory rights to our intellectual property that was developed with government funding; or
- our business may infringe the patents or other proprietary rights of others.

The actual protection afforded by a patent varies based on products or processes, from country to country and depends upon many factors, including the type of patent, the scope of its coverage, the availability of regulatory related extensions, the availability of legal remedies in a particular country, the validity and enforceability of the patents and our financial ability to enforce our patents and other intellectual property. Our ability to maintain and solidify our proprietary position for our products will depend on our success in obtaining effective claims and enforcing those claims once granted. Our issued patents and those that may issue in the future, or those licensed to us, may be challenged, narrowed, invalidated or circumvented, and the rights granted under any issued patents may not provide us with proprietary protection or competitive advantages against competitors with similar products. Due to the extensive amount of time required for the development, testing and regulatory review of a potential product, it is possible that, before any of our product candidate can be commercialized, any related patent may expire or remain in force for only a short period following commercialization, thereby reducing any advantage of the patent.

We may also rely on trade secrets to protect some of our technology, especially where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to maintain. While we use reasonable efforts to protect our trade secrets, we or any of our collaborators' employees, consultants, contractors or scientific and other advisors may unintentionally or willfully disclose our proprietary information to competitors and we may not have adequate remedies in respect of that disclosure. Enforcement of claims that a third party has illegally obtained and is using trade secrets is expensive, time consuming and uncertain. In addition, foreign courts are sometimes less willing than United States courts to protect trade secrets. If our competitors independently develop equivalent knowledge, methods and know-how, we would not be able to assert our trade secrets against them and our business could be harmed.

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

Filing, prosecuting and defending patents on our product candidate in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States can be less extensive than those in the United States. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States. For example, many foreign countries have compulsory licensing laws under which a patent owner must grant licenses to third parties. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States, or from selling or importing products made using our inventions in and into the United States or other jurisdictions. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and further, may export otherwise infringing products to territories where we have patent protection, but enforcement rights are not as strong as those in the United States. These products may compete with our product candidate in jurisdictions where we do not have any issued patents and our patent claims or other intellectual rights may not be effective or sufficient to prevent them from so competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries do not favor the enforcement of patents and other intellectual property protection, which could make it difficult for us to stop the infringement of our patents generally. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

The patent protection for our product candidate may expire before we are able to maximize their commercial value, which may subject us to increased competition and reduce or eliminate our opportunity to generate product revenue.

The patents for our product candidate have varying expiration dates and, if these patents expire, we may be subject to increased competition and we may not be able to recover our development costs or market any of our approved products profitably. In some of the larger potential market territories, such as the United States and Europe, patent term extension or restoration may be available to compensate for time taken during aspects of the product's development and regulatory review. For example, depending on the timing, duration and specifics of FDA marketing approval of our product candidate, if any, one of the United States patents covering each of such approved product(s) or the use thereof may be eligible for up to five years of patent term restoration under the Hatch-Waxman Act. The Hatch-Waxman Act allows a maximum of one patent to be extended per FDA-approved product. Patent term extension also may be available in certain foreign countries upon regulatory approval of our product candidate.

Nevertheless, we may not be granted patent term extension either in the United States or in any foreign country because of, for example, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents or otherwise failing to satisfy applicable requirements. Moreover, the term of extension, as well as the scope of patent protection during any such extension, afforded by the governmental authority could be less than we request. In addition, even though some regulatory authorities may provide some other exclusivity for a product under their own laws and regulations, we may not be able to qualify the product or obtain the exclusive time period. If we are unable to obtain patent term extension/restoration or some other exclusivity, we could be subject to increased competition and our opportunity to establish or maintain product revenue could be substantially reduced or eliminated. Furthermore, we may not have sufficient time to recover our development costs prior to the expiration of our United States and foreign patents.

Obtaining and maintaining our patent protection depends on compliance with various procedural, documentary, 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.

The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent prosecution process. Periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on any issued patent and/or pending patent applications are due to be paid to the USPTO and foreign patent agencies in several stages over the lifetime of a patent or patent application. We employ an outside firm and rely on our outside counsel to pay these fees. While an inadvertent lapse may sometimes be cured by payment of a late fee or by other means in accordance with the applicable rules, there are many situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. If we fail to maintain the patents and patent applications directed to our product candidate, our competitors might be able to enter the market earlier than should otherwise have been the case, which would have a material adverse effect on our business.

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

Competitors may infringe our patents or other intellectual property rights. To counter infringement or unauthorized use, we may be required to file infringement claims, directly or through our licensors, which can be expensive and time consuming. In addition, in an infringement proceeding, a court may decide that a patent of ours or of our licensors is not

valid or is unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation or defense proceedings could put one or more of our patents or the patents we license at risk of being invalidated or interpreted narrowly and could put our or our licensors' patent applications at risk of not issuing.

Interference proceedings brought by the USPTO may be necessary to determine the priority of inventions with respect to our patents or the patents of our licensors. An unfavorable outcome could require us to cease using the technology or to attempt to license rights to it from the prevailing party. Our business could be harmed if a prevailing party does not offer us a license on terms that are acceptable to us. Litigation or interference proceedings may fail and, even if successful, may result in substantial costs and distraction of our management and other employees. We may not be able to prevent, alone or with our licensors, misappropriation of our proprietary rights, particularly in countries where the laws may not protect those rights as fully as in the United States. In addition, potential infringers of our intellectual property rights may have substantially more resources than we do to defend their position, which could adversely affect the outcome of any such dispute.

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

Third-party claims of intellectual property infringement or misappropriation may adversely affect our business and could prevent us from developing or commercializing our product candidate.

Our commercial success depends in part on us not infringing the patents and proprietary rights of third parties. There is a substantial amount of litigation, both within and outside the United States, involving patent and other intellectual property rights in the biotechnology and pharmaceutical industries, including patent infringement lawsuits, interferences, oppositions, ex-parte review and inter partes reexamination and post-grant review proceedings before the USPTO and corresponding foreign patent offices. Numerous United States and foreign issued patents and pending patent applications owned by third parties exist in the fields in which we are developing and may develop our product candidate. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that our product candidate may be subject to claims of infringement of the patent rights of third parties. If a third party claims that we infringe on their products or technology, we could face a number of issues, including:

- infringement and other intellectual property claims which, with or without merit, can be expensive and timeconsuming to litigate and can divert management's attention from our core business;
- substantial damages for past infringement, which we may have to pay if a court decides that our product infringes on a competitor's patent;
- a court prohibiting us from selling or licensing our product unless the patent holder licenses the patent to us, which the collaborator would not be required to do;
- if a license is available from a patent holder, we may have to pay substantial royalties or grant cross licenses to our patents; and
- redesigning our processes so they do not infringe, which may not be possible or could require substantial funds and time.

Third parties may assert that we are employing their proprietary technology without authorization. There may be thirdparty patents or patent applications with claims to materials, formulations, methods of manufacture or methods for treatment related to the use or manufacture of our product candidate that we failed to identify. For example, applications filed before November 29, 2000 and certain applications filed after that date that will not be filed outside the United States remain confidential until issued as patents. Except for the preceding exceptions, patent applications in the United States and elsewhere are generally published only after a waiting period of approximately 18 months after the earliest filing. Therefore, patent applications covering our product candidate could have been filed by others without the knowledge of us or our licensors. Additionally, pending patent applications which have been published can, subject to certain limitations, be later amended in a manner that could cover our product candidate or the use or manufacture of our product candidate. We may also face a claim of misappropriation if a third party believes that we inappropriately obtained and used trade secrets of such third party. If we are found to have misappropriated a third party's trade secrets, we may be prevented from further using such trade secrets, limiting our ability to develop our product candidate, and we may be required to pay damages.

If any third-party patents were held by a court of competent jurisdiction to cover aspects of our materials, formulations, methods of manufacture or methods for treatment, the holders of any such patents would be able to block our ability to develop and commercialize the applicable product candidate until such patent expired or unless we obtain a license. These licenses may not be available on acceptable terms, if at all. Even if we were able to obtain a license, the rights may be nonexclusive, which could result in our competitors gaining access to the same intellectual property.

Ultimately, we could be prevented from commercializing a product, or be forced to cease some aspect of our business operations, if, as a result of actual or threatened patent infringement claims, we are unable to enter into licenses on acceptable terms.

Parties making claims against us may obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize our product candidate. Defending against claims of patent infringement or misappropriation of trade secrets could be costly and time-consuming, regardless of the outcome. Thus, even if we were to ultimately prevail, or to settle at an early stage, such litigation could burden us with substantial unanticipated costs. In addition, litigation or threatened litigation could result in significant demands on the time and attention of our management team, distracting them from the pursuit of other company business. In the event of a successful claim of infringement, pay royalties, redesign our infringing products or obtain one or more licenses from third parties, which may be impossible or require substantial time and monetary expenditure. In addition, the uncertainties associated with litigation could have a material adverse effect on our ability to raise the funds necessary to continue our clinical trials, continue our research programs, license necessary technology from third parties, or enter into development collaborations that would help us bring our product candidate to market.

Changes in United States patent law could diminish the value of patents in general, thereby impairing our ability to protect our product candidate.

As is the case with other pharmaceutical companies, our success is heavily dependent on intellectual property, particularly on obtaining and enforcing patents and patent rights. Obtaining and enforcing patents and patent rights in the pharmaceutical industry involves both technological and legal complexity, and therefore, is costly, time-consuming and inherently uncertain. In addition, the United States has recently enacted and is currently implementing wide-ranging patent reform legislation. Further, several recent United States Supreme Court rulings have either narrowed the scope of patent protection available in certain circumstances or weakened the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents and patent rights, once obtained.

For our United States patent applications containing a claim not entitled to priority before March 16, 2013, there is a greater level of uncertainty in the patent law. In September 2011, the Leahy-Smith America Invents Act (the "America Invents Act" or "AIA") was signed into law. The AIA includes a number of significant changes to United States patent law, including provisions that affect the way patent applications will be prosecuted, reviewed after issuance, and may also affect patent litigation. The USPTO is currently developing regulations and procedures to govern administration of the AIA, and many of the substantive changes to patent law associated with the AIA. It is not clear what other, if any, impact the AIA will have on the operation of our business. Moreover, the AIA and its implementation could increase the uncertainties and costs surrounding the prosecution of patent applications and the enforcement or defense of patent rights, all of which could have a material adverse effect on our business and financial condition.

An important change introduced by the AIA is that, as of March 16, 2013, the United States transitioned to a "first-inventor-to-file" system for deciding which party should be granted a patent when two or more patent applications are filed by different parties claiming the same invention. A third party that files a patent application in the USPTO after that date but before a licensor or us could therefore be awarded a patent covering an invention of ours even if said licensor or

we had made the invention before it was made by the third party. This will require us to be cognizant going forward of the time from invention to filing of a patent application. Furthermore, our ability to obtain and maintain valid and enforceable patent rights depends on whether the differences between the licensor's or our technology and the prior art allow our technology to be patentable over the prior art. Since patent applications in the United States and most other countries are confidential for a period of time after filing, we cannot be certain that a licensor or we were the first to either (a) file any patent applications related to our product candidate or (b) invent any of the inventions claimed in our patents or patent applications.

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

Depending on decisions by the United States Congress, the federal courts, and the USPTO, the laws and regulations governing patents could change in unpredictable ways that would weaken our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future.

Intellectual property rights do not address all potential threats to our competitive advantage.

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

- Others may be able to make products that are similar to our product candidate but that are not covered by the claims of the patents that we license from others or may license or own in the future;
- Others may independently develop similar or alternative technologies or otherwise circumvent any of our technologies without infringing our intellectual property rights;
- Any of our collaborators might not have been the first to conceive and reduce to practice the inventions covered by the patents or patent applications that we license or will, in the future, own or license;
- Issued patents that have been licensed to us may not provide us with any competitive advantage, or may be held invalid or unenforceable, as a result of legal challenges by our competitors;
- Our competitors might conduct research and development activities in countries where we do not have license rights, or in countries where research and development safe harbor laws exist, and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- Ownership of patents or patent applications licensed to us may be challenged by third parties;
- The patents of third parties or pending or future applications of third parties, if issued, may have an adverse effect on our business.

Confidentiality agreements with employees, consultants and others may not adequately prevent disclosure of trade secrets and protect other proprietary information.

We consider proprietary trade secrets and/or confidential know-how and unpatented know-how to be important to our business. We may rely on trade secrets and/or confidential know-how to protect our technology, especially where patent protection is believed by us to be of limited value. However, trade secrets and/or confidential know-how can be difficult to maintain as confidential.

To protect this type of information against disclosure or appropriation by competitors, our policy is to require our employees, consultants, contractors and advisors to enter into confidentiality agreements with us. However, current or former employees, consultants, contractors and advisers may unintentionally or willfully disclose our confidential information to competitors, and confidentiality agreements may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. Enforcing a claim that a third party obtained illegally and is using trade secrets and/or confidential know-how is expensive, time consuming and unpredictable. The enforceability of confidentiality agreements may vary from jurisdiction to jurisdiction.

Failure to obtain or maintain trade secrets and/or confidential know-how trade protection could adversely affect our competitive position. Moreover, our competitors may independently develop substantially equivalent proprietary information and may even apply for patent protection in respect of the same. If successful in obtaining such patent protection, our competitors could limit our use of our trade secrets and/or confidential know-how.

We may need to license certain intellectual property from third parties, and such licenses may not be available or may not be available on commercially reasonable terms.

A third party may hold intellectual property, including patent rights, that are important or necessary to the development or commercialization of our product candidate. It may be necessary for us to use the patented or proprietary technology of third parties to commercialize our product candidate, in which case we would be required to obtain a license from these third parties. Such a license may not be available on commercially reasonable terms or at all, which could materially harm our business.

We may be subject to claims that our employees, consultants or independent contractors have wrongfully used or disclosed confidential information of third parties.

We have received confidential and proprietary information from third parties. In addition, we employ individuals who were previously employed at other biotechnology or pharmaceutical companies. We may be subject to claims that we or our employees, consultants or independent contractors have inadvertently or otherwise improperly used or disclosed confidential information of these third parties or our employees' former employers.

Further, we may be subject to ownership disputes in the future arising, for example, from conflicting obligations of consultants or others who are involved in developing our product candidate. We may also be subject to claims that former employees, consultants, independent contractors, collaborators or other third parties have an ownership interest in our patents or other intellectual property. Litigation may be necessary to defend against these and other claims challenging our right to and use of confidential and proprietary information. If we fail in defending any such claims, in addition to paying monetary damages, we may lose our rights therein. Such an outcome could have a material adverse effect on our business.

Even if we are successful in defending against these claims, litigation could result in substantial cost and be a distraction to our management and employees.

Our reliance on third parties requires us to share our trade secrets, which increases the possibility that a competitor will discover them or that our trade secrets will be misappropriated or disclosed.

Because we rely on third parties to assist with research and development and to manufacture our product candidate, we must, at times, share trade secrets with them. We seek to protect our proprietary technology in part by entering into confidentiality agreements and, if applicable, material transfer agreements, consulting agreements or other similar agreements with our advisors, employees, third-party contractors and consultants prior to beginning research or disclosing proprietary information. These agreements typically limit the rights of the third parties to use or disclose our confidential information, including our trade secrets. Despite the contractual provisions employed when working with third parties, the need to share trade secrets and other confidential information increases the risk that such trade secrets become known by our competitors, are inadvertently incorporated into the technology of others, or are disclosed or used in violation of these agreements. Given that our proprietary position is based, in part, on our know-how and trade secrets, a competitor's discovery of our trade secrets or other unauthorized use or disclosure would impair our competitive position and may have a material adverse effect on our business.

In addition, these agreements typically restrict the ability of our advisors, employees, third-party contractors and consultants to publish data potentially relating to our trade secrets, although our agreements may contain certain limited publication rights. For example, any academic institution that we may collaborate with in the future will usually expect to be granted rights to publish data arising out of such collaboration, provided that we are notified in advance and given the opportunity to delay publication for a limited time period in order for us to secure patent protection of intellectual property rights arising from the collaboration, in addition to the opportunity to remove confidential or trade secret information from any such publication. In the future, we may also conduct joint research and development programs that may require us to share trade secrets, our competitors may discover our trade secrets, either through breach of our agreements with third parties, independent development or publication of information by any of our third-party collaborators. A competitor's discovery of our trade secrets would impair our competitive position and have an adverse impact on our business.

Risks Related to Our Industry

Drug development involves a lengthy and expensive process with an uncertain outcome, and results of earlier studies and trials may not be predictive of future trial results.

Conducting clinical trials is a lengthy, time-consuming and expensive process. Before obtaining regulatory approvals for the commercial sale of any products, we, or our potential partners, must demonstrate through preclinical testing and clinical trials that our product candidates are safe and effective for their intended uses in humans. We have incurred and may continue to incur substantial expense and devote a significant amount of time to preclinical testing and clinical trials.

The outcome of clinical testing is inherently uncertain. Failure can occur at any time during the clinical trial process. The results of preclinical studies and early clinical trials of product candidates may not be predictive of the results of later-stage clinical trials. In addition, regulations are not static, and regulatory agencies, including the FDA, alter their staff, interpretations and practices and may in the future impose more stringent requirements than are currently in effect, which may adversely affect our planned drug development and/or our commercialization efforts. Satisfying regulatory requirements typically takes a significant number of years and can vary substantially based on the type, complexity and novelty of the product candidate. Our business, results of operations and financial condition may be materially adversely affected by any delays in, or termination of, our clinical trials. Factors that could impede our ability to generate commercially viable products through the conduct of clinical trials include:

- insufficient funds to conduct clinical trials;
- the inability to find partners, if necessary, for support, including research, development, manufacturing or clinical needs;
- the failure of tests or studies necessary to submit an NDA, such as clinical studies, bioequivalence studies in support of a 505(b)(2) regulatory filing, or stability studies;
- the failure of clinical trials to demonstrate the safety and efficacy of our product candidate to the extent necessary to obtain regulatory approvals;
- the failure by us or third-party investigators, CROs, or other third parties involved in the research to adhere to regulatory requirements applicable to the conduct of clinical trials;
- the failure of preclinical testing and early clinical trials to predict results of later clinical trials;
- any delay in completion of clinical trials caused by a regional disturbance where we or our collaborative partners are enrolling patients in clinical studies, such as pandemic, terrorist activities, or war, or political unrest, a natural disaster or any other reason or event, resulting in increased costs;
- any delay in obtaining advice from the FDA or similar regulatory authorities; and

 the inability to obtain regulatory approval of our product candidate following completion of clinical trials, or delays in obtaining such approvals.

There can be no assurance that if our clinical trials are successfully initiated and completed, we will be able to obtain approval by the FDA in the U.S. or similar regulatory authorities elsewhere in the world in a timely manner, if at all. For example, as described elsewhere, we received a CRL from the FDA in August, 2020 and November 2021, regarding our NDA for PEDMARKTM, stating that it was unable to approve the application in its current form based on deficiencies identified by the FDA after completion of a pre-approval inspection of the manufacturing facility of our third-party drug product manufacturer. Even if we are successful in resolving some or all of the matters raised by the FDA in the CRL, there is significant risk that we will be unable to obtain FDA approval for PEDMARKTM on a timely basis or at all. If we fail to successfully develop and commercialize PEDMARKTM we may be unable to generate sufficient revenues to attain profitability, and our reputation in the industry and in the investment community would likely be damaged, each of which would cause our stock price to decrease.

We use hazardous materials and chemicals in our research and development, and our failure to comply with laws related to hazardous materials could materially harm us.

Our research and development processes, while outsourced, does involve the controlled use of hazardous materials, such as flammable organic solvents, corrosive acids and corrosive bases. Accordingly, we are subject to federal, state, local and foreign laws and regulations governing the use, manufacture, storage, handling and disposal of such materials and certain waste products. The risk of accidental contamination or injury from these materials cannot be completely eliminated. We could be held liable for any damages that result and any such liability could exceed our resources and may not be covered by our general liability insurance. We currently do not carry insurance specifically for hazardous materials claims. We may be required to incur significant costs to comply with environmental laws and regulations, which may change from time to time.

Efforts to reduce product pricing and health care reimbursement and changes to government policies could negatively affect the commercialization of our product candidate.

If our product candidate achieves regulatory approval, we may be materially adversely affected by the continuing efforts of governmental and third-party payers to contain or reduce health care costs. For example, if we succeed in bringing one or more products to market, such products may not be considered cost-effective and the availability of consumer reimbursement may not exist or be sufficient to allow the sale of such products on a competitive basis. The constraints on pricing and availability of competitive products may further limit our pricing and reimbursement policies as well as adversely impact market acceptance and commercialization of our product candidate.

In many markets, the pricing or profitability of healthcare products is subject to government control. In recent years, federal, state, provincial and local officials and legislators have proposed or are proposing a variety of price-based reforms to the healthcare systems in the United States, Canada and elsewhere. Some proposals include measures that would limit or eliminate payments from third-party payors to the consumer for certain medical procedures and treatments or allow government control of pharmaceutical pricing. The adoption of any such proposals or reforms could adversely affect the commercial viability of our product candidate.

In the United States, there have been and continue to be a number of legislative initiatives to contain healthcare costs. For example, in 2010, the Affordable Care Act was passed, which substantially changes the way health care is financed by both governmental and private insurers, and significantly impacts the U.S. pharmaceutical industry.

Some states are also considering legislation that would control the prices of drugs, and state Medicaid programs are increasingly requesting manufacturers to pay supplemental rebates and requiring prior authorization by the state program for use of any drug for which supplemental rebates are not being paid. Managed care organizations continue to seek price discounts and, in some cases, to impose restrictions on the coverage of particular drugs. Government efforts to reduce Medicaid expenses may lead to increased use of managed care organizations by Medicaid programs. This may result in managed care organizations influencing prescription decisions for a larger segment of the population and a corresponding constraint on prices and reimbursement for our products.

Since its enactment, there have been judicial and Congressional challenges to numerous aspects of the Affordable Care Act. There may also be federal and state regulatory changes that impact the Affordable Care Act or healthcare programs, insurance coverage or reimbursement generally. These efforts have increased uncertainty regarding the availability of healthcare programs, insurance coverage and reimbursement as a general matter as well as for our product candidate, and we cannot predict how these events will impact our business.

In addition, there has been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products, which have resulted in several recent Congressional inquiries and proposed bills designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, reduce the price of drugs under Medicare and reform government program reimbursement methodologies for products. We expect that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in reduced demand for our product candidate or additional pricing pressures.

Any significant changes in the healthcare system in the United States, Canada or abroad would likely have a substantial impact on the manner in which we conduct business and could have a material adverse effect on our ability to raise capital and the viability of product commercialization.

Risks Related to Owning Our Common Shares

We may be unable to maintain the listing of our common shares on the Nasdaq Capital Market or the TSX and that would make it more difficult for shareholders to dispose of our common shares.

Our common shares are currently listed on the Nasdaq Capital Market and the Toronto Stock Exchange (the "TSX"). Both the Nasdaq Capital Market and the TSX have rules for continued listing, including minimum market capitalization and other requirements that we might not meet in the future. While we are exercising diligent efforts to maintain the listing of our common shares on the NASDAQ Capital Market and TSX, there can be no assurance that we will be able to do so, and our securities could be delisted.

Delisting from the Nasdaq Capital Market or the TSX would make it more difficult for shareholders to dispose of our common shares and more difficult to obtain accurate quotations on our common shares. This could have an adverse effect on the price of our common shares. There can be no assurances that a market maker will make a market in our common shares on the OTCBB or any other stock quotation system after delisting. Furthermore, securities quoted over-the-counter generally have significantly less liquidity than securities traded on a national securities exchange, not only in the number of shares that can be bought and sold, but also through delays in the timing of transactions and lower market prices than might otherwise be obtained. As a result, shareholders might find it difficult to resell shares at prices quoted in the market or at all. Furthermore, because of the limited market and generally low volume of trading in our common shares, our common shares are more likely to be affected by broad market fluctuations, general market conditions, fluctuations in our operating results, changes in the market's perception of our business, and announcements made by us, our competitors or parties with whom we have business relationships. Our ability to issue additional securities for financing or other purposes, or to otherwise arrange for any financing we may need in the future, may also be materially and adversely affected by the limited market and low trading volume of our common shares.

The market price of our common shares is highly volatile and could cause the value of your investment to significantly decline.

Historically, the market price of our common shares has been highly volatile and the market for our common shares has from time-to-time experienced significant price and volume fluctuations, some of which are unrelated to our operating performance. From January 1, 2018 to February 25, 2022, the closing trading price of our stock fluctuated from a high of \$18.45 Canadian dollars ("CAD") per share to a low of CAD\$4.38 per share on the TSX. From September 13, 2017 (the date our common shares were first listed on the Nasdaq Capital Market) to February 25, 2022, the closing trading price of our stock fluctuated from a high of \$14.33 per share to a low of \$3.30 on the Nasdaq Capital Market. Historically, our common shares have had a low trading volume, and may continue to have a low trading volume in the future. This low volume may contribute to the volatility of the market price of our common shares. It is likely that the market price of our common shares will continue to fluctuate significantly in the future.

The market price of our common shares may be significantly affected by many factors, including without limitation:

- the development of our sole product candidate, PEDMARKTM;
- the need to raise additional capital and the terms of any transaction we are able to enter into;
- other external factors generally or stock market trends in the pharmaceutical or biotechnology industries specifically;
- announcements of licensing agreements, joint ventures, collaborations or other strategic alliances that involve our product or those of our competitors;
- innovations related to our or our competitors' products;
- actual or potential clinical trial results related to our or our competitors' products;
- the status, timing and outcome of regulatory approvals;
- our financial results or those of our competitors;
- reports of securities analysts regarding us or our competitors;
- developments or disputes concerning our licensed or owned patents or those of our competitors;
- developments with respect to the efficacy or safety of our product or those of our competitors; and
- health care reforms and reimbursement policy changes nationally and internationally.

Our existing principal shareholders hold a substantial number of our common shares and may be able to exercise influence in matters requiring approval of our shareholders.

At February 25, 2022, our current shareholders separately representing more than 5% ownership of our common shares collectively represented beneficial ownership of approximately 40.28% of our common shares. In particular, Southpoint Capital Advisors LP ("Southpoint Capital") owns or exercises control over approximately 4.0 million shares, representing approximately 15.67% of our issued and outstanding common shares; Essetifin SpA, owns approximately 4.0 million shares, or approximately 15.35% of our issued and outstanding common shares; and Sonic Fund II, LP, owns approximately 2.4 million shares, or approximately 9.25% of our issued and outstanding common shares, and other insiders, acting alone or together, might be able to influence the outcomes of matters that require the approval of our shareholders, including but not limited to certain equity transactions (such as a financing), an acquisition or merger with another company, a sale of substantially all of our assets, the election and removal of directors, or amendments to our incorporating documents. These shareholders might make decisions that are adverse to your interests. The concentration of ownership could have the effect of delaying, preventing or deterring a change of control of our Company, which could adversely affect the market price of our common shares or deprive our other shareholders of an opportunity to receive a premium for our common shares as part of a sale of our Company.

There are a large number of our common shares underlying outstanding options, and reserved for issuance under our stock option plan, that may be sold in the market, which could depress the market price of our shares and result in substantial dilution to the holders of our common shares.

The sale or issuance of a substantial amount of our common shares in the future could cause the market price of our common shares to decline. It may also impair our ability to obtain additional financing. At February 25, 2022, we had outstanding warrants to purchase approximately 0.04 million shares of our common shares at an exercise price of \$6.80 per common share. In addition, at February 25, 2022, there were approximately 4.3 million common shares issuable upon the exercise of outstanding stock options with a weighted average exercise price of \$5.13 per common share. We

may also issue further warrants as part of any future financings in addition to the additional 2.2 million options to acquire our common shares currently remaining and available for future awards under our stock option plan.

We may need to raise additional funds in the future to continue our operations. Any equity offering could result in significant dilution to the ownership interests of shareholders and may result in dilution of the value of such interests and any debt offering will increase financial risk.

In order to satisfy our anticipated capital requirements to develop our product, we may need to raise additional funds through either the sale of additional equity, the issuance of securities convertible into equity, the issuance of debt, the establishment of collaborations that provide us with funding, the out-license or sale of certain aspects of our intellectual property portfolio, or from other sources. The most likely sources of financing that may be available to us in the near term are the sale of common shares and/or securities convertible or exercisable into common shares and the issuance of debt.

We cannot predict the size of future issues of common shares or the future issue of securities convertible or exercisable into common shares or the effect that any such future issues and sales of common shares or other securities will have on the market price of our common shares. Any transaction involving the issue of common shares, or securities convertible or exercisable into common shares, could result in immediate and substantial dilution to present and prospective holders of our common shares. Alternatively, we may rely on debt financing and assume debt obligations that require us to make substantial interest and capital payments and to pledge some or all of our assets as collateral to secure such debt obligations. Failure to meet out debt obligations could result in an acceleration of the debt and enforcement against our assets pledged as collateral, either of which would have an adverse effect on our operations and prospects.

Our management has significant flexibility in using the current available cash.

In addition to general corporate purposes (including working capital, research and development, business development and operational purposes), we currently intend to use our available cash to continue the development of our drug candidate PEDMARK[™], to seek regulatory approval for PEDMARK[™], and to invest in precommercial activities for PEDMARK[™]. Depending on future developments and circumstances, we may use some of our available cash for other purposes, which may have the potential to decrease our cash runway. Notwithstanding our current intentions regarding use of our available cash, our management will have significant flexibility with respect to such use. The actual amounts and timing of expenditures will vary significantly depending on a number of factors, including the amount and timing of cash used in our operations and our research and development efforts. Management's failure to use these funds effectively would have an adverse effect on the value of our common stock and could make it more difficult and costlier to raise funds in the future.

We have not paid any dividends since incorporation and do not anticipate declaring any dividends in the foreseeable future. As a result, you may not be able to recoup your investment through the payment of dividends on your common shares and the lack of a dividend payable on our common shares might depress the value of your investment.

For the foreseeable future, we plan to use all available funds to finance the development of our product candidate and operate our business. Our directors will determine if and when dividends should be declared and paid in the future based on our financial position at the relevant time, but since we have no present plans to pay dividends, you should not expect receipt of dividends either for your cash needs or to enhance the value of our common shares held by you.

We may be a passive foreign investment company, or "PFIC," which could result in adverse United States federal income tax consequences to U.S. investors.

If we are a PFIC for any taxable year (or portion thereof) that is included in the holding period of a U.S. Holder (as such term is defined in the section of this Annual Report entitled "Material U.S. Federal Income Tax Considerations") of our common shares, the U.S. Holder may be subject to adverse U.S. federal income tax consequences and may be subject to additional reporting requirements. We have not made the analysis necessary to determine whether or not we are currently a PFIC or whether we have ever been a PFIC, and there can be no assurances with respect to our status as a PFIC for our current taxable year or any subsequent taxable year. If we are a PFIC for any taxable year, we intend to provide to a U.S. Holder such information as the Internal Revenue Service ("IRS") may require, including a PFIC annual

information statement, in order to enable the U.S. Holder to make and maintain a "qualified electing fund" election. For a more detailed explanation of the tax consequences of PFIC classification to U.S. Holders, see the section of this Annual Report entitled "Material U.S. Federal Income Tax Considerations." This paragraph is qualified in its entirety by the discussion under that heading. Each U.S. shareholder should consult its own tax advisors regarding the PFIC rules and the U.S. federal income tax consequences of the acquisition, ownership, and disposition of our common shares.

Failure to maintain effective internal controls in accordance with Section 404 of the Sarbanes-Oxley Act of 2002 could have an adverse effect on our business.

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002 ("Section 404") and the rules and regulations promulgated by the SEC to implement Section 404, we are required to include in our Form 10-K a report by our management regarding the effectiveness of our internal control over financial reporting. The report includes, among other things, an assessment of the effectiveness of our internal control over financial reporting. The assessment must include disclosure of any material weakness in our internal control over financial reporting identified by management.

As part of the evaluation undertaken by management pursuant to Section 404, our management concluded that our internal control over financial reporting was effective as of December 31, 2021. However, if we fail to maintain an effective system of disclosure controls or internal controls over financial reporting, we may discover material weaknesses that we would then be required to disclose. Any material weaknesses identified in our internal controls could have an adverse effect on our business. We may not be able to accurately or timely report on our financial results, and we might be subject to investigation by regulatory authorities. This could result in a loss of investor confidence in the accuracy and completeness of our financial reports, which may have an adverse effect on our stock price.

No evaluation process can provide complete assurance that our internal controls will detect and correct all failures within our Company to disclose material information otherwise required to be reported. The effectiveness of our controls and procedures could also be limited by simple errors or faulty judgments. In addition, if we continue to expand, through either organic growth or through acquisitions (or both), the challenges involved in implementing appropriate controls will increase and may require that we evolve some or all of our internal control processes. Under applicable SEC rules, our management's assessment of the effectiveness of our internal control over financial reporting are not attested to by our registered public accounting firm.

It is also possible that the overall scope of Section 404 may be revised in the future, thereby causing ourselves to review, revise or reevaluate our internal control processes, which may result in the expenditure of additional human and financial resources.

Risks Related to Bridge Bank Debt Facility

We may be unable to maintain the covenants in the Bridge Bank Facility which could have a material adverse effect on the Company's business

Failure to resubmit the NDA by March 31, 2022 or obtain approval by September 30, 2022 or other events of default allow Bridge Bank to declare the facility immediately due and payable which may have a material adverse effect on the Company's business. The Company currently has \$5.0 million funded under the Bridge Bank facility.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

We have an operating lease in Research Triangle Park, North Carolina utilizing small space within a commercial building. The operating lease has payments of \$400 per month with no scheduled increases. This operating lease is terminable with 30 days' notice and has no penalties or contingent payments due.

On January 23, 2020, we entered into an Office Service Agreement (the "Office Service Agreement") with Regus to lease office space at in Hoboken, New Jersey. Per the terms of the Office Service Agreement, the monthly rent payments are \$1,150. The Office Service Agreement had an initial term of January 27, 2020 to July 31, 2020 and thereafter automatically renews for successive six-month periods. Either party is able to terminate the agreement by providing no less than three months' advance written notice of termination.

Item 3. Legal Proceedings

Chapman et al.

On September 2, 2020, a putative class action lawsuit, Chapman v. Fennec Pharmaceuticals Inc., was filed against us, our Chief Executive Officer, Rostislav Raykov, and our Chief Financial Officer, Robert Andrade, in the United States District Court for the Middle District of North Carolina. The complaint alleged that prior to our August 10, 2020 receipt of a CRL from the FDA concerning our NDA for PEDMARKTM, we made materially false or misleading statements and failed to disclose material facts about the status of our PEDMARKTM manufacturing facility, the facility's compliance with cGMP, and the impact its status and compliance would have on regulatory approval for PEDMARKTM. On December 3, 2020, the court appointed a lead plaintiff to represent the putative class. On February 1, 2021, the lead plaintiff filed an amended complaint. The amended complaint added members of our Board of Directors as defendants, asserts a putative class period from December 10, 2018 through August 10, 2020, makes allegations similar to those in the original complaint, and claims the defendants violated Section 10(b) of the Exchange Act. On March 3, 2021, we and the other defendants filed a motion to dismiss the amended complaint. On April 2, 2021, plaintiffs filed an opposition to the motion. On April 16, 2021, we and the other defendants filed a reply brief in support of the motion. On December 16, 2021, the Magistrate Judge on the motion entered an order recommending that our motion to dismiss be compliant. Plaintiffs filed objections to the Magistrate Judge's recommendation on January 24, 2022, and Defendants filed their response on February 3, 2022. The parties are currently awaiting a decision from the U.S. District Court Judge as to whether it will accept the Magistrate Judge's recommendation.

We believe that the suit is without merit and intend to defend it vigorously. We cannot predict the outcome of this suit. Failure by us to obtain a favorable resolution of the suit could have a material adverse effect on our business, results of operations and financial condition. We have not recorded a liability as of December 31, 2021, because we believe a potential loss is not probable or reasonably estimable given the preliminary nature of the proceedings.

Jeffrey D. Fisher

On February 9, 2022, plaintiff Jeffrey D. Fisher filed a putative federal securities class action against the Company and its CEO and CFO in the United States District Court for the Middle District of North Carolina, captioned *Fisher v. Fennec Pharmaceuticals et al.*, Case No. 1:22-cv-115 (M.D.N.C.). The complaint alleges that the defendants violated Sections 10(b) and 20(a) of the Exchange Act by making materially false and misleading statements or omissions regarding the status of its PEDMARKTM manufacturing facility, the facility's compliance with cGMP, and the impact its status and compliance would have on regulatory approval for PEDMARKTM in the period leading up to the Company's November 29, 2021 receipt of a Complete Response Letter for a subsequent NDA for PEDMARKTM. The complaint seeks an unspecified amount of compensatory damages and other relief on behalf of persons who purchased the Company's common stock from May 28, 2021 and November 26, 2021.

We believe that the suit is without merit and intend to defend it vigorously. We cannot predict the outcome of this suit. Failure by us to obtain a favorable resolution of the suit could have a material adverse effect on our business, results of operations and financial condition.

Hope Medical Enterprises, Inc.

On October 29, 2021, Hope Medical Enterprises, Inc. ("Hope") filed two petitions for inter partes review ("IPR") with the Patent Trial and Appeal Board ("PTAB") of the USPTO. In its petitions, Hope seeks to invalidate our U.S. Patent No. 10,596,190 ("US '190"), which is exclusively in-licensed from Oregon Health & Science University ("OHSU") and relates to a method of using our PEDMARK[™] product, and our U.S. Patent No. 10,792,363 ("US '363"), which relates to an anhydrous form of STS, which is the active pharmaceutical ingredient in our PEDMARK[™] product.

US '190 was issued on March 24, 2020. US '363 was issued on October 6, 2020. We filed preliminary responses to the petitions in February 2022, and thereafter, the PTAB has three months to decide whether to institute IPR proceedings. If the PTAB institutes one or both reviews, the final written decision(s) will be due about one year after the PTAB's decision to institute IPR proceedings, and following additional submissions by the parties. Any appeals of a PTAB decision would delay any final outcome. We plan to vigorously defend our intellectual property rights related to PEDMARK[™]. However, we are unable to predict the outcome of these petitions, and an invalidation of one or both of these patents may have a material adverse effect on our ability to protect our rights in PEDMARK[™] beyond the market exclusivity granted upon approval in the U.S. under Orphan Drug Designation and in the EU under PUMA.

On January 11, 2022, our licensor OHSU filed a Request for Supplemental Examination of US '190 requesting the consideration by the USPTO of certain prior art references, including references cited by Hope in its Petition for IPR that are relevant to the granted claim of the patent. On January 28, 2022, the USPTO found that the cited references constitute a substantial new question of patentability and ordered an ex parte reexamination of the single US '190 claim of pursuant to 35 U.S.C. § 257. We are unable to predict the outcome of the *ex parte* reexamination. If the USPTO does not uphold the '190 claim as granted or in amended form, our ability to protect our PEDMARKTM product beyond the market exclusivity granted upon approval in the U.S. under Orphan Drug Designation and in the EU under PUMA may be adversely affected.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

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

Our common shares currently trade in the U.S. on the Nasdaq Capital Market under the trading symbol "FENC" and in Canada on the TSX under the trading symbol "FRX". The following table sets forth the quarterly high and low market closing prices and average daily trading volume on the Nasdaq Capital Market and the TSX for the two most recent full fiscal years:

		Nasdaq Capital Market (in U.S. dollars)			Toronto Stock Exchange (in Canadian dollars)		
Fiscal 2021:	High \$	Low \$	Volume	High \$	Low \$	Volume	
Quarter ended 12/31/21	\$ 10.01	\$ 3.89	147,722	\$ 13.25	\$ 5.01	1,261	
Quarter ended 09/30/21	9.62	6.21	52,014	12.18	8.13	871	
Quarter ended 06/30/21	7.85	5.96	193,373	9.69	7.28	868	
Quarter ended 03/31/21	\$ 8.68	\$ 6.21	80,389	\$ 11.20	\$ 7.79	1,369	
Fiscal 2020:	High \$	Low \$	Volume	High \$	Low \$	Volume	
Quarter ended 12/31/20	\$ 8.55	\$ 5.99	120,722	\$ 11.24	\$ 8.00	775	
Quarter ended 09/30/20	10.17	5.19	418,223	13.51	6.54	2,640	
Quarter ended 06/30/20	9.39	5.43	216,324	12.70	8.00	1,144	
Quarter ended 03/31/20	\$ 8.10	\$ 4.89	64,745	\$ 10.79	\$ 6.91	1,113	

As of February 25, 2022, the last reported sale on the TSX was CAD\$6.96 per share and the last reported sale on the Nasdaq Capital Market was \$5.43 per share.

Record Holders

As of February 25, 2022, there were approximately 29 shareholders of record of our common shares, one of which was Cede & Co., a nominee for Depository Trust Company, and one of which was The Canadian Depository for Securities Limited ("CDS"). All of our common shares held by brokerage firms, banks and other financial institutions in the U.S. or Canada as nominees for beneficial owners are considered to be held of record by Cede & Co. in respect of brokerage firms, banks and other financial institutions located in Canada. Cede & Co. and CDS are each considered to be one shareholder of record.

Dividend Policy

We have never declared or paid cash dividends on our common shares. We currently expect to retain future earnings, if any, for use in the operation and expansion of business and do not anticipate paying any cash dividends in the foreseeable future.

Material United States Federal and Canadian Income Tax Consequences

Material U.S. Federal Income Tax Considerations

The following summary describes the material U.S. federal income tax consequences to U.S. Holders (as defined below) of acquiring, owning, and disposing of our common shares, subject to the qualifications set forth herein.

General

Tax Consequences Not Addressed

This summary does not address all potential U.S. federal income tax considerations that may be relevant to a particular U.S. Holder. In addition, this summary does not take into account the individual facts and circumstances that may affect the U.S. federal income tax consequences to a particular U.S. Holder, including specific tax consequences under an applicable income tax treaty. Accordingly, this summary is not intended to be, and should not be construed as, legal or U.S. federal income tax advice with respect to any U.S. Holder. This summary does not address any U.S. federal alternative minimum, U.S. federal estate and gift, U.S. state and local, or non-U.S. tax considerations, and does not discuss tax reporting requirements that may be applicable to any particular U.S. Holder. Each prospective investor should consult a professional tax advisor with respect to the U.S. federal income, U.S. alternative minimum, U.S. federal estate and gift, U.S. state and local, and non-U.S. tax consequences of acquiring, owning, and disposing of our common shares.

Authorities

This summary is based upon the provisions of the United States Internal Revenue Code (the "Code"), the United States Treasury Regulations (whether final, temporary, or proposed) promulgated thereunder, the Convention Between Canada and the United States of America with Respect to Taxes on Income and on Capital, signed September 26, 1980, as amended (the "Canada-U.S. Tax Convention"), and administrative rulings and judicial decisions interpreting the Code and the United States Treasury Regulations, all as currently in effect, and all subject to differing interpretations or change, possibly on a retroactive basis. We have not sought, and will not seek, a ruling from the IRS regarding any matter discussed herein, and no assurance can be given that the IRS would not assert, or that a court would not sustain, a position that is different from, and contrary to, the positions taken in this summary. This summary does not discuss the potential effects, whether adverse or beneficial, of any proposed legislation.

U.S. Holders

For purposes of this summary, the term "U.S. Holder" means a beneficial owner of our common shares that is for U.S. federal income tax purposes:

- an individual who is a citizen or resident of the United States (as determined under U.S. federal income tax rules);
- a corporation (or other entity treated as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States or of any political subdivision of the United States;
- an estate, the income of which is subject to U.S. federal income taxation regardless of its source; or

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• a trust that (i) is subject to the primary supervision of a court within the United States and the control of one or more U.S. persons for all substantial decisions or (ii) has a valid election in effect under applicable United States Treasury Regulations to be treated as a U.S. person.

An individual may be a resident for U.S. federal income tax purposes in any calendar year if the individual was present in the United States for at least 31 days in that calendar year and for an aggregate of at least 183 days during the three-year period ending with the current calendar year. For purposes of this calculation, all of the days present in the current year, one-third of the days present in the immediately preceding year, and one-sixth of the days present in the second preceding year are counted. Residents are taxed for U.S. federal income tax purposes as if they were U.S. citizens.

Non-U.S. Holders Not Addressed

For purposes of this summary, a "non-U.S. Holder" is a beneficial owner of common shares that is not a U.S. Holder and is not a partnership for U.S. federal income tax purposes. This summary does not address the U.S. federal income tax consequences to non-U.S. Holders of acquiring, owning, and disposing our common shares. Each non-U.S. Holder investor should consult a professional tax advisor with respect to the U.S. federal income, U.S. alternative minimum, U.S. federal estate and gift, U.S. state and local, and non-U.S. tax consequences of acquiring, owning, and disposing of our common shares.

Certain U.S. Holders Not Addressed

This summary does not address the U.S. federal income tax considerations applicable U.S. Holders that are subject to special provisions under the Code, including, but not limited to, U.S. Holders that:

- are tax-exempt organizations, qualified retirement plans, individual retirement accounts, or other tax-deferred accounts;
- are financial institutions, underwriters, insurance companies, real estate investment trusts, or regulated investment companies;
- are broker-dealers, dealers, or traders in securities or currencies that elect to apply a mark-to-market accounting method;
- have a "functional currency" other than the U.S. dollar;
- own common shares as part of a straddle, hedging transaction, conversion transaction, constructive sale, or other arrangement involving more than one position;
- acquired common shares in connection with the exercise of employee stock options or otherwise as compensation for services;
- hold common shares other than as a capital asset within the meaning of section 1221 of the Code (generally, property held for investment purposes);
- are partnerships or other "pass-through" entities for U.S. federal income tax purposes (or investors in such partnerships or entities);
- own, have owned, or will own (directly, indirectly, or by attribution) 10% or more of the total combined voting power of the outstanding shares of your company;
- are U.S. expatriates who are former citizens or long-term residents of the United States;
- have been, are, or will be residents or deemed to be residents in Canada for purposes of the Income Tax Act (Canada) (the "Tax Act");

- use or hold, will use or hold, or that are or will be deemed to use or hold common shares in connection with carrying on a business in Canada;
- are persons whose common shares constitute "taxable Canadian property" under the Tax Act; or
- have a permanent establishment in Canada for the purposes of the Canada-U.S. Tax Convention.

U.S. Holders that are subject to special provisions under the Code, including, but not limited to, U.S. Holders described immediately above, should consult their own tax advisors regarding the U.S. federal income, U.S. federal alternative minimum, U.S. federal estate and gift, U.S. state and local, and non-U.S. tax consequences of acquiring, owning, and disposing of our common shares.

The following summary is not a substitute for careful tax planning and advice. U.S. Holders of common shares are urged to consult their own tax advisors concerning the U.S. federal income tax consequences of the issues discussed herein, in light of their particular circumstances, as well as any considerations arising under the laws of any foreign, state, local, or other taxing jurisdiction.

General Rules Applicable to the Ownership and Disposition of Common Shares

The following discussion describes the general rules applicable to the ownership and disposition of the common shares but is subject in its entirety to the special rules described below under the headings entitled "Tax Consequences if We Are a Passive Foreign Investment Company" and "Tax Consequences if We are a Controlled Foreign Corporation."

Distributions on Common Shares

The gross amount of any distribution (including amounts, if any, withheld in respect of Canadian withholding tax) actually or constructively received by a U.S. Holder with respect to our common shares will be taxable to the U.S. Holder as a dividend to the extent of our current or accumulated earnings and profits as determined under U.S. federal income tax principles. Distributions to a U.S. Holder in excess of earnings and profits will be treated first as a return of capital that reduces a U.S. Holder's tax basis in such common shares (thereby increasing the amount of gain or decreasing the amount of loss that a U.S. Holder would recognize on a subsequent disposition of our common shares), and then as gain from the sale or exchange of such common shares (see "Sale or Other Taxable Disposition of Our Common Shares"). The amount of any distribution of property other than cash will be the fair market value of that property on the date of distribution. In the event we make distributions to holders of common shares, we may or may not calculate our earnings and profits under U.S. federal income tax principles. If we do not do so, any distribution may be required to be regarded as a dividend, even if that distribution would otherwise be treated as a non-taxable return of capital or as capital gain. The amount of the dividend will generally be treated as foreign-source dividend income to U.S. Holders.

Non-corporate U.S. Holders, including individuals, will generally be eligible for the preferential U.S. federal rate on "qualified dividend income," provided that we are a "qualified foreign corporation," the stock on which the dividend is paid is held for a minimum holding period, and other requirements are satisfied. A "qualified foreign corporation" includes a foreign corporation that is not a PFIC in the year of the distribution or in the prior taxable year and that is eligible for the benefits of an income tax treaty with the United States that contains an exchange of information provision and has been determined by the United States Treasury Department to be satisfactory for purposes of the legislation (such as the Canada-U.S. Tax Convention).

Distributions to U.S. Holders generally will not be eligible for the "dividends received deduction" generally allowed to U.S. corporations in respect of dividends received from other U.S. corporations.

Sale or Other Taxable Disposition of Our Common Shares

Upon the sale, exchange, or other taxable disposition of our common shares, a U.S. Holder generally will recognize gain or loss equal to the difference between the amount realized upon the sale, exchange, or other disposition and such U.S. Holder's tax basis in such common shares sold or otherwise disposed of. If the U.S. holder receives Canadian dollars in the transaction, the amount realized will be the U.S. dollar value of the Canadian dollars received, which is determined

for cash basis taxpayers on the settlement date for the transaction and for accrual basis taxpayers on the trade date (although accrual basis taxpayers can also elect the settlement date). A U.S. Holder's tax basis in common shares generally will be such holder's U.S. dollar cost for such common shares. Gain or loss recognized on such sale or other disposition generally will be long-term capital gain or loss if, at the time of the sale or other disposition, the common shares have been held for more than one year.

Preferential tax rates currently apply to long-term capital gain of a U.S. Holder that is an individual, estate, or trust. There are currently no preferential tax rates for long-term capital gain of a corporate U.S. Holder. Deductions for capital losses are subject to significant limitations under the Code. The gain or loss will generally be U.S.-source gain or loss for foreign tax credit purposes.

Additional Medicare Tax on Net Investment Income

Certain U.S. Holders that are individuals, estates, or trusts (other than trusts that are exempt from tax) are subject to a tax of 3.8% on "net investment income" (or undistributed "net investment income," in the case of estates and trusts) for each taxable year, with such tax applying to the lesser of such income or the excess of such person's adjusted gross income (with certain adjustments) over a specified amount. Net investment income includes dividends on the common shares and net gains from the disposition of the common shares.

U.S. Holders that are individuals, estates, or trusts should consult their own tax advisors regarding the applicability of this tax to any of their income or gains in respect of the common shares.

Receipt of Foreign Currency

The amount of any distribution paid to a U.S. Holder in foreign currency, or on the sale, exchange, or other taxable disposition of common shares, generally will be equal to the U.S. dollar value of such foreign currency based on the exchange rate applicable on the date of receipt (regardless of whether such foreign currency is converted into U.S. dollars at that time). If the foreign currency received is not converted into U.S. dollars on the date of receipt, a U.S. Holder will have a tax basis in the foreign currency equal to its U.S. dollar value on the date of receipt. Any U.S. Holder who converts or otherwise disposes of the foreign currency after the date of receipt may have a foreign currency exchange gain or loss that would be treated as ordinary income or loss, and generally will be U.S. source income or loss for foreign tax credit purposes. Different rules apply to U.S. Holders who use the accrual method of tax accounting. Each U.S. Holder should consult its own U.S. tax advisors regarding the U.S. federal income tax consequences of receiving, owning, and disposing of foreign currency.

Foreign Tax Credit

Subject to the PFIC rules discussed below, a U.S. Holder that pays (whether directly or through withholding) Canadian income tax with respect to dividends paid on the common shares generally will be entitled, at the election of such U.S. Holder, to receive either a deduction or a credit for such Canadian income tax paid. Generally, a credit will reduce a U.S. Holder's U.S. federal income tax liability on a dollar-for-dollar basis, whereas a deduction will reduce a U.S. Holder's income that is subject to U.S. federal income tax. This election is made on a year-by-year basis and applies to all foreign taxes paid (whether directly or through withholding) by a U.S. Holder during a year.

Complex limitations apply to the foreign tax credit, including the general limitation that the credit cannot exceed the proportionate share of a U.S. Holder's U.S. federal income tax liability that such U.S. Holder's "foreign source" taxable income bears to such U.S. Holder's worldwide taxable income. In applying this limitation, a U.S. Holder's various items of income and deduction must be classified, under complex rules, as either "foreign source" or "U.S. source." Generally, dividends paid by a foreign corporation (including constructive dividends) should be treated as foreign source for this purpose, and gains recognized on the sale of stock of a foreign corporation by a U.S. Holder should be treated as U.S. source for this purpose, except as otherwise provided in an applicable income tax treaty, and if an election is properly made under the Code. However, the amount of a distribution with respect to the common shares that is treated as a "dividend" may be lower for U.S. federal income tax purposes than it is for Canadian federal income tax purposes, resulting in a reduced foreign tax credit allowance to a U.S. Holder. In addition, this limitation is calculated separately with respect to specific categories of income. The foreign tax credit rules are complex, and each U.S. Holder should consult its own U.S.

Information Reporting and Backup Withholding

Under U.S. federal income tax law, certain categories of U.S. Holders must file information returns with respect to their investment in, or involvement in, a foreign corporation. For example, certain U.S. Holders who hold certain "specified foreign financial assets" that exceed certain thresholds are required to report information relating to such assets. The definition of "specified foreign financial assets" generally includes not only financial accounts maintained in foreign financial institutions, but also, unless held in accounts maintained by a financial institution, any stock or security issued by a non-U.S. person, any financial instrument or contract held for investment that has an issuer or counterparty other than a U.S. person, and any interest in a foreign entity. U.S. Holders may be subject to these reporting requirements unless their common shares are held in an account at certain financial institutions. Significant penalties may apply for failure to satisfy applicable reporting obligations.

Distributions paid with respect to common shares and proceeds from a sale, exchange, or redemption of common shares made within the United States or through certain U.S.-related financial intermediaries may be subject to information reporting to the IRS and possible U.S. backup withholding (at a rate of 28%). Backup withholding will not apply, however, to a U.S. Holder who furnishes a correct U.S. taxpayer identification number and makes any other required certification on IRS Form W-9 or that is a corporation or other entity that is otherwise exempt from backup withholding. Each U.S. Holder should consult its own tax advisors regarding the application of the U.S. information reporting and backup withholding rules. Backup withholding is not an additional tax. Amounts withheld as backup withholding may be credited against a holder's U.S. federal income tax liability, and such holder may obtain a refund of any excess amounts withheld under the backup withholding rules by filing an appropriate claim for refund with the IRS and furnishing any required information in a timely manner.

The discussion of reporting requirements set forth above is not intended to constitute a complete description of all reporting requirements that may apply to a U.S. Holder. A failure to satisfy certain reporting requirements may result in an extension of the time period during which the IRS can assess a tax and, under certain circumstances, such an extension may apply to assessments of amounts unrelated to any unsatisfied reporting requirement. U.S. Holders should consult with their own tax advisors regarding their reporting obligations, if any, as a result of their acquisition, ownership, or disposition of our common shares.

Tax Consequences if We are a Passive Foreign Investment Company

A foreign corporation generally will be treated as a PFIC if, after applying certain "look-through" rules, either (i) 75% or more of its gross income is passive income or (ii) 50% or more of the average value of its assets is attributable to assets that produce or are held to produce passive income. Passive income for this purpose generally includes dividends, interest, rents, royalties and gains from securities and commodities transactions. The look-through rules require a foreign corporation that owns at least 25% by value of the stock of another corporation to treat a proportionate amount of assets and income as held or received directly by the foreign corporation.

We have not made the analysis necessary to determine whether or not we are currently a PFIC or whether we have ever been a PFIC. There can be no assurance that we are not, have never been or will not in the future be a PFIC. If we were to be treated as a PFIC, any gain recognized by a U.S. shareholder upon the sale (or certain other dispositions) of our common shares (or the receipt of certain distributions) generally would be treated as ordinary income, and a U.S. shareholder may be required, in certain circumstances, to pay an interest charge together with tax calculated at maximum rates on certain "excess distributions," including any gain on the sale or certain dispositions of our common shares. In order to avoid this tax consequence, a U.S. shareholder (i) may be permitted to make a "qualified electing fund" election, in which case, in lieu of such treatment, such shareholder would be required to include in its taxable income certain undistributed amounts of our income or (ii) may elect to mark-to-market our common shares and recognize ordinary income (or possible ordinary loss) each year with respect to such investment and on the sale or other disposition of the common shares. Additionally, if we are deemed to be a PFIC, a U.S. shareholder who acquires our common shares from a decedent will be denied the normally available step-up in tax basis to fair market value for the common shares at the date of the death and instead will have a tax basis equal to the decedent's tax basis if lower than fair market value. Neither we nor our advisors have the duty to or will undertake to inform U.S. shareholders of changes in circumstances that would cause us to become a PFIC. U.S. shareholders should consult their own tax advisors regarding the application of the PFIC rules including eligibility for and the manner and advisability of making certain elections in the event we are

determined to be a PFIC at any point in time. We intend to take the action necessary for a U.S. shareholder to make a "qualified electing fund" election in the event we are a PFIC.

Further, excess distributions treated as dividends, gains treated as excess distributions and mark-to-market inclusions and deductions, all under the PFIC rules discussed above, are all included in the calculation of net investment income for purposes of the 3.8% tax described above under the subheading entitled "Additional Medicare Tax on Net Investment Income". United States Treasury Regulations provide, subject to the election described in the following paragraph, that solely for purposes of this additional tax, distributions of previously taxed income will be treated as dividends and included in net investment income subject to the additional 3.8% tax. Additionally, to determine the amount of any capital gain from the sale or other taxable disposition of common shares that will be subject to the additional tax on net investment income, a U.S. Holder who has made a "qualified electing fund" election fund" election. Alternatively, a U.S. Holder may make an election which will be effective with respect to all interests in a PFIC for which a "qualified electing fund" election has been made and which is held in that year or acquired in future years. Under this election, a U.S. Holder pays the additional 3.8% tax on income inclusions resulting from the "qualified electing fund" election and on gains calculated after giving effect to related tax basis adjustments.

Tax Consequences if We are a Controlled Foreign Corporation

A foreign corporation will be treated as a "controlled foreign corporation" ("CFC") for U.S. federal income tax purposes if, on any day during the taxable year of such foreign corporation, more than 50% of the equity interests in such corporation, measured by reference to the combined voting power or value of the equity of the corporation, is owned directly or by application of the attribution and constructive ownership rules of Sections 958(a) and 958(b) of the Code by United States Shareholders. For this purpose, a "United States Shareholder" is any United States person that possesses directly, or by application of the attribution and constructive ownership rules of Sections 958(a) and 958(b) of the Code, 10% or more of the combined voting power of all classes of equity in such corporation or 10% or more of the total value of shares of all classes in such corporation. If a foreign corporation is a CFC on any day during any taxable year, each United States Shareholder of our Company who owns, directly or indirectly, our common shares on the last day of the taxable year on which we are a CFC will be required to include in its gross income for United States federal income tax purposes its pro rata share of our "Subpart F income," even if the Subpart F income is not distributed. Subpart F income generally includes passive income but also includes certain related party sales, manufacturing and services income.

In addition to the inclusion of "Subpart F income" of a CFC in the gross income of a United States Shareholder, there may be exposure to an additional tax under the recently enacted Global Intangible Low Tax Income regime ("GILTI"). Specifically, the GILTI rules impose an annual minimum tax on U.S. Holders of their share of GILTI income generated through CFCs. This GILTI income very generally equals a CFC's income over a 10% return on the CFCs tangible depreciable trade or business assets. The GILTI tax is 10.5% (until 2026 and 13.12% for tax years after) on U.S. Holders who are C corporations, as they are entitled to a 50% deduction (37.5% after 2025) of the GILTI income as well as a reduced foreign tax credit on foreign taxes paid on the GILTI income. U.S. Holders who are individuals, estates or trusts may pay substantially more tax on GILTI income, as they are subject to ordinary tax rates (ranging from 10% to 37% plus the net investment income tax of 3.8%). Such U.S. Holders are not entitled to a deduction on GILTI income or a reduced foreign tax credit. There is, however, an election available to such U.S. Holders to mitigate the tax impact.

If we are a CFC, the PFIC rules set forth above, even if we are otherwise considered to be a PFIC, will not be applicable.

United States persons who might, directly, indirectly or constructively, acquire 10% or more of our common shares, and therefore might be a United States Shareholder, should consider the possible application of the CFC rules and GILTI rules and consult a tax advisor with respect to such matters.

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Material Canadian Federal Income Tax Considerations

Non-Residents of Canada

The following portion of the summary is generally applicable to a U.S. Holder. Special rules, which are not discussed in this summary, may apply to a U.S. Holder that is an insurer that carries on an insurance business in Canada and elsewhere.

Disposition of Common Shares

Upon the disposition by a U.S. Holder of common shares in our Company, the U.S. Holder will not be subject to tax under the Tax Act in respect of any capital gain realized unless the common shares disposed of constitutes "taxable Canadian property" of the U.S. Holder and the U.S. Holder is not entitled to relief under an applicable tax treaty or convention. Common shares will generally not constitute "taxable Canadian property" of such U.S. Holder unless at any time in the preceding 60 months both of the following statements were true: (a) the U.S. Holder, together with either (i) persons with whom the U.S. Holder does not deal at arm's length or (ii) partnerships in which the U.S. Holder or a person in (a) directly or indirectly hold membership interests, held shares and/or rights to acquire shares representing 25% or more of the issued shares of any class of our capital stock; and (b) more than 50% of the fair market value of our common stock was derived directly or indirectly from one or any combination of (i) real or immovable property situated in Canada, (ii) Canadian resource properties, (iii) timber resource properties, and (iv) options in respect of, or interests in, or for civil law rights in, property described in any of (i) to (iii).

U.S. Holders whose common shares constitute "taxable Canadian property" should consult their own tax advisors for advice having regard to their particular circumstances.

Dividends Paid on Common Shares

Dividends paid, credited or deemed to have been paid or credited on our common shares held by a U.S. Holder will be subject to a Canadian withholding tax under the Tax Act at a rate of 25% of the gross amount of the dividends, subject to reduction by any applicable tax convention. Under the tax convention between Canada and the United States (the "Tax Treaty"), the rate of withholding tax on dividends generally applicable to U.S. Holders who beneficially own the dividends is reduced to 15%. In the case of U.S. Holders that are corporations that beneficially own at least 10% of our voting shares, the rate of withholding tax on dividends generally is reduced to 5%. So-called "fiscally transparent" entities, such as United States limited liability companies, or LLCs, are not entitled to rely on the terms of the Tax Treaty, however a member of such entity will be considered to have received the dividend directly and to benefit from the reduced rates under the Tax Treaty, where the member is considered under U.S. taxation law to have derived the dividend through that entity and by reason of the entity being a fiscally transparent entity, the treatment of the dividend is the same as its treatment would be if the amount had been derived directly by the member. Members of such entities are regarded as holding their proportionate share of our common shares held by the entity for the purposes of the Tax Treaty.

Item 6. Selected Financial Data

Not applicable.

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

CAUTIONARY STATEMENT

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and related notes appearing at the end of this Annual Report. Some of the information contained in this discussion and analysis or set forth elsewhere in this Annual Report, including information with respect to our plans and strategy for our business, includes forward looking statements that involve risks and uncertainties. As a result of many factors, including those factors set forth in the "Cautionary Note Regarding Forward-Looking Statements" and "Risk Factors" section of this Annual Report, our actual results could differ materially from

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the results described in, or implied by, the forward-looking statements contained in the following discussion and analysis.

Overview

Our only product candidate in the clinical stage of development is PEDMARKTM (sodium thiosulfate (STS) anhydrous injection). We have announced results of two Phase 3 clinical trials for the prevention of cisplatin induced hearing loss, or ototoxicity in children including the pivotal Phase 3 study SIOPEL 6, "A Multicentre Open Label Randomised Phase 3 Trial of the Efficacy of Sodium Thiosulfate in Reducing Ototoxicity in Patients Receiving Cisplatin Chemotherapy for Standard Risk Hepatoblastoma," and the proof of concept Phase 3 study "A Randomized Phase 3 Study of Sodium Thiosulfate for the Prevention of Cisplatin-Induced Ototoxicity in Children".

We continue to focus our resources on the development of PEDMARKTM.

We have licensed from OHSU intellectual property rights for the use of PEDMARKTM as a chemoprotectant and are developing PEDMARKTM as a protectant against the hearing loss often caused by platinum-based anti-cancer agents in children. Preclinical and clinical studies conducted by OHSU and others have indicated that PEDMARKTM can effectively reduce the incidence of hearing loss caused by platinum-based anti-cancer agents.

Hearing loss among children receiving platinum-based chemotherapy is frequent, permanent and often severely disabling. The incidence of hearing loss in these children depends upon the dose and duration of chemotherapy, and many of these children require lifelong hearing aids. In addition, adults undergoing chemotherapy for several common malignancies, including ovarian cancer, testicular cancer, and particularly head and neck cancer and brain cancer, often receive intensive platinum-based therapy and may experience severe, irreversible hearing loss, particularly in the high frequencies.

In the U.S. and Europe, it is estimated that, annually, over 10,000 children may receive platinum-based chemotherapy. The incidence of ototoxicity depends upon the dose and duration of chemotherapy, and many of these children require lifelong hearing aids. There is currently no established preventive agent for this hearing loss and only expensive, technically difficult and sub-optimal cochlear (inner ear) implants have been shown to provide some benefit. Infants and young children that suffer ototoxicity at critical stages of development lack speech language development and literacy, and older children and adolescents lack social-emotional development and educational achievement.

In March 2018, PEDMARKTM received Breakthrough Therapy and Fast Track designations from the FDA. Further, PEDMARKTM has received Orphan Drug Designation in the U.S. in this setting.

We initiated our rolling NDA for PEDMARKTM for the prevention of ototoxicity induced by cisplatin chemotherapy patients 1 month to < 18 years of age with localized, non-metastatic, solid tumors with the FDA in December 2018. We announced that we had submitted full completion of the NDA in February 2020. The FDA set a PDUFA target action date of August 10, 2020 for the completion of the FDA's review. On August 10, 2020, we announced that we received a CRL from the FDA regarding our NDA for PEDMARKTM, which identified deficiencies in the third-party manufacturing facility that manufactures PEDMARKTM on our behalf. Importantly, no clinical safety or efficacy issues were identified during the review and there is no requirement for further clinical data. In May 2021, we announced the resubmission of our NDA for PEDMARKTM and in June 2021 we further announced that the FDA accepted for filing the resubmission of our NDA and set a PDUFA target action date of November 27, 2021. On November 29, 2021, we announced that we received a CRL from the FDA regarding our NDA for PEDMARKTM on our behalf. We are working closely with the FDA to fully address the CRL, and we plan to resubmit our NDA for PEDMARKTM in the first quarter of 2022.

In August 2018, the PDCO of the EMA accepted our PIP for sodium thiosulfate with the trade name Pedmarqsi for the condition of the prevention of platinum-induced hearing loss. An accepted PIP is a prerequisite for filing a MAA for any new medicinal product in Europe. The indication targeted by our PIP is for the prevention of platinum-induced ototoxic hearing loss for standard risk hepatoblastoma (SR-HB). Additional tumor types of the proposed indication will be subject to the CHMP assessment at the time of the MAA. No deferred clinical studies were required in the positive opinion given by PDCO. We were also advised that sodium thiosulfate (tradename to be determined) is eligible for submission of an application for a PUMA. A PUMA is a dedicated marketing authorization covering the indication and

appropriate formulation for medicines developed exclusively for use in the pediatric population and provides data and market protection up to 10 years. Therefore, this decision allows us to proceed with the submission of a PUMA in the European Union (EU) with incentives of automatic access to the centralized procedure and up to 10 years of data and market protection. In February 2020, we announced that we had submitted a MAA for the prevention of ototoxicity induced by cisplatin chemotherapy patients 1 month to < 18 years of age with localized, non-metastatic, solid tumors.

We have not received and do not expect to have significant revenues from our product candidate until we are either able to sell our product candidate after obtaining applicable regulatory approvals or we establish collaborations that provide us with up-front payments, licensing fees, milestone payments, royalties or other revenue. We generated a net loss of \$17.4 million for the year ended December 31, 2021. We generated a net loss of approximately \$18.1 million for the year ended December 31, 2021, our accumulated deficit was approximately \$179.6 million.

Our projections of our capital requirements are subject to substantial uncertainty, and more capital than we currently anticipate may be required thereafter. To finance our continuing operations, we may need to raise substantial additional funds through either the sale of additional equity, the issuance of debt, the establishment of collaborations that provide us with funding, the out-license or sale of certain aspects of our intellectual property portfolio or from other sources. We may not be able to raise the necessary capital or such funding may not be available on financially acceptable terms if at all. If we cannot obtain adequate funding in the future, we might be required to further delay, scale back or eliminate certain research and development studies, consider business combinations or even shut down some, or all, of our operations.

Our operating expenses will depend on many factors, including the progress of our drug development efforts and efficiency of our operations and current resources. Our research and development expenses, which include expenses associated with our clinical trials, drug manufacturing to support clinical programs, stock-based compensation, consulting fees, sponsored research costs, toxicology studies, license fees, milestone payments, and other fees and costs related to the development of our product candidate, will depend on the availability of financial resources, the results of our clinical trials, and any directives from regulatory agencies, which are difficult to predict. Our general and administration expenses include expenses associated with the compensation of employees, stock-based compensation, professional fees, consulting fees, insurance and other administrative matters associated in support of our drug development programs.

On May 5, 2020, we announced the completion of an underwritten public offering of 4,800,000 of our common shares at a public offering price of \$6.25 per share. In addition, we issued an additional 660,204 common shares in connection with the partial exercise of the underwriters' over-allotment option. The approximate total gross proceeds from the offering were \$34,100 (\$32,189 net of commissions, fees and issue costs).

On February 1, 2019, our wholly owned subsidiary, Fennec Pharmaceuticals, Inc., entered into a Loan and Security Agreement (the "Bridge Bank Loan and Security Agreement") with Bridge Bank, a division of Western Alliance Bank, an Arizona corporation ("Bridge Bank"), pursuant to which Bridge Bank agreed to loan \$12,500 to Fennec Pharmaceuticals, Inc., to be made available upon NDA approval of PEDMARKTM by the FDA no later than September 30, 2020. The Bridge Bank Loan and Security Agreement was amended on June 25, 2020 to increase the total potential amount of the loan to \$18,000 and to extend the outside date to receive NDA approval of PEDMARKTM to December 31, 2020. In connection with this facility, we issued Bridge Bank a warrant to purchase up to 39 of our common shares at an exercise price of \$6.80 per share, with an exercise period of ten years from the date of issuance subject to certain early termination conditions. Under Accounting Standards Codification ("ASC") 470-50, Modifications and Extinguishments, the amendment to the facility was considered a modification. As such, we had been amortizing the loan fee and the value of the warrant over the remainder of the loan term. Following receipt of the FDA's CRL in August 2020, which identified deficiencies in the third-party manufacturing facility that manufactures PEDMARKTM on our behalf, we decided to fully amortize the remaining portions of the loan fee and the value of the warrant issued to Bridge Bank remains outstanding.

On June 24, 2021, we entered into a second amendment to the Bridge Bank Loan and Security Agreement. This amendment provides Fennec Pharmaceuticals, Inc. with a \$20,000 debt facility comprised of three term loans. Term Loan A consists of \$5,000, which was funded upon closing. Term Loan B consists of \$7,500 to be funded upon NDA approval of PEDMARKTM no later than January 31, 2022. Term Loan C consists of \$7,500 to be funded upon us

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achieving consolidated trailing nine-month revenues of \$11 million on or before December 31, 2022. The interest-only period for the facility has the ability to be extended from 18 months to 24 months from the funding of Term Loan B, provided that Term Loan C is funded, and certain other conditions are met. On January 27, 2022, we entered into a third amendment to the Bridge Bank Loan and Security Agreement extending the outside date to receive NDA approval of PEDMARKTM to September 30, 2022. Among other customary events of default, failure to obtain NDA approval by September 30, 2022 constitutes an event of default under the Bridge Bank Loan and Security Agreement, upon which Bridge Bank may declare the entire balance of the facility immediately due and payable. Although Bridge Bank has previously extended the deadline to receive NDA approval, there is no assurance that it will do so again if the NDA is not approved by the current September 30, 2022 deadline. We intend to use the proceeds from the loans to provide working capital for commercial readiness activities prior to NDA approval as well as commercialization activities for PEDMARKTM, if approved by the FDA.

We believe that the funds raised in our May 2020 public offering provides us sufficient funding to carry-out our planned activities, including potential NDA approval and the commencement of commercialization efforts, for at least the next twelve months as we continue our strategic development of PEDMARKTM.

Results of Operations

Fiscal 2021 versus Fiscal 2020

In thousands of U.S. Dollars	Fiscal Year Ended December 31, 2021 %		Fiscal Year Ended December 31, 2020		Increase (Decrease)
Revenue	\$ —		\$ 170		\$ (170)
Operating expenses:					
Research and development	4,981	29 %	5,105	28 %	(124)
General and administration	12,242	71 %	12,950	72 %	(708)
Total operating expense	17,223	100 %	18,055	100 %	(832)
Loss from operations	17,223		17,885		(662)
Unrealized (loss)/gain on securities	(25)		100		(125)
Amortization expense	(16)		(402)		386
Other losses	(136)		(9)		(127)
Interest income and other, net	54		87		(33)
Net loss	\$ (17,346)		\$ (18,109)		\$ 763

- We had no revenues in fiscal 2021. In fiscal 2020, revenues reported represent royalties related to the Elion Oncology, LLC ("Elion") transaction with Processa Pharmaceuticals, Inc. ("Processa") (see "Revenue arrangements" under Note 2 of our consolidated financial statements appearing elsewhere in this Annual Report). In 2020, we received \$0.005 million in cash and 41,250 restricted shares of Processa.
- Research and development expense decreased by \$0.1 million in fiscal 2021 as compared to fiscal 2020.
- The \$0.7 million decrease in general and administrative expenses in fiscal 2021 compared to fiscal 2020 is attributed to the decrease in pre-commercialization expenses. Many pre-commercialization expenses were completed in fiscal 2020 and did not need to be repeated. These savings were offset in fiscal 2021 by increased legal expenses of \$0.4 million associated with the class action suit, increased payroll expense of \$0.5 million with higher average headcount and increased non-cash equity compensation of \$1.0 million.
- There was a negligible unrealized loss on the Processa shares for the year ended December 31, 2021. For fiscal year ended December 31, 2020, there was a gain of \$0.1 million. We acquired the Processa shares on October 30, 2020. The Processa shares are marked to market at each balance sheet date with the resulting change in value being booked as an unrealized gain or loss.
- Amortization expense was down sharply as in fiscal 2020, as we wrote off the entire capitalized amount associated with the Bridge Bank Loan and Security Agreement origination costs. In fiscal 2021, we capitalized

costs associated with the amended facility. The origination fees for the amended facility in fiscal 2021were much lower than the original facility.

- Other losses increased by \$0.13 million. This was driven mainly by interest expense. We pay interest on the financed D&O insurance policy and the \$5.0 million of funded debt from Bridge Bank.
- Interest income decreased in fiscal 2021 as compared to fiscal 2020, due to lower average balances and rates on money market accounts for the comparable periods.

Quarterly Information

The following table presents selected consolidated financial data for each of the last eight quarters through December 31, 2021, as prepared under generally accepted accounting principles within the United States, or U.S. GAAP (dollars in thousands, except per share information).

Period	Net (Loss)/Income for the Period	Basic Net (Loss)/Income per Common Share	Diluted Net (Loss)/Income per Common Share
March 31, 2020	\$ (3,826)	\$ (0.19)	\$ (0.19)
June 30, 2020	(4,845)	(0.21)	(0.21)
September 30, 2020	(6,200)	(0.24)	(0.24)
December 31, 2020	(3,238)	(0.13)	(0.13)
March 31, 2021	(4,733)	(0.18)	(0.18)
June 30, 2021	(4,001)	(0.15)	(0.15)
September 30, 2021	(4,185)	(0.16)	(0.16)
December 31, 2021	(4,427)	(0.18)	(0.18)

Quarter ended December 31, 2021 versus 2020

In thousands of U.S. Dollars	Quarter Ended December 31, 2021 %		Quarter Ended December 31, 2020		%	ncrease Jecrease)	
Revenue	\$			\$	170		\$ (170)
Operating expenses:							
Research and development		523	12 %		1,223	36 %	(700)
General and administration		3,684	88 %		2,293	64 %	1,391
Total operating expense		4,207	100 %		3,516	100 %	691
Loss from operations		4,207			3,346		861
Unrealized (loss)/gain on securities		(162)			100		 (262)
Interest income		13			13		_
Amortization expense		(8)			_		(8)
Other (loss), net		(63)			(5)		(58)
Net loss	\$	(4,427)		\$	(3,238)		\$ (1,189)

Revenues reported in the three months ended December 31, 2020, represent royalties related to the Elion transaction with Processa. On October 30, 2020, we received \$0.005 million in cash and 41,250 restricted shares of Processa. We reported a loss from operations of \$4.4 million for the three months ended December 31, 2021, compared to a loss from operations of \$3.2 million for the same period in 2020. Research and development expenses totaled \$0.5 million for the three months ended December 31, 2021, down by \$0.7 million over the same period in 2020. General and administrative expenses increased by \$1.4 million in the three months ended December 31, 2021, as compared to the same period in 2020. The increase arises from non-cash equity grants and our pre-commercialization activities for PEDMARKTM as we prepared for potential NDA approval by the FDA in November 2021. There was an unrealized loss of \$0.2 million on the Processa shares as of over fiscal year 2021. The Processa shares will be marked to market at each balance sheet date.

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The resulting change in value will result in an unrealized gain or loss. Other loss increased by \$0.06 million. This relates to interest expense for the funded debt of the loan security agreement.

Selected Asset and Liability Data (thousands):	As at December 31, 2021		As at December 31, 2020	
Cash and equivalents	\$	21,100	\$	30,344
Other current assets		1,287		1,073
Current liabilities		1,654		2,347
Working capital ⁽¹⁾		20,733		29,070
⁽¹⁾ [Current assets – current liabilities]				
Selected Equity:				
Common stock and additional paid in capital		194,015		189,967
Accumulated deficit		(179,486)		(162,140)
Shareholders' equity		15,772		29,070

Liquidity and Capital Resources

- There was a \$9.2 million decrease in cash and cash equivalents between December 31, 2021 and December 31, 2020. The net decrease was the result of cash operating expenses, offset by the \$5.0 million received from the Bridge Bank Loan and Security Agreement and some negligible amounts received from option exercises. During the period ended December 31, 2021, cash for operations was used mainly on the pre-commercialization activities of PEDMARKTM and regulatory submission activities relating to the NDA.
- The increase in other current assets between December 31, 2021 and December 31, 2020 primarily relates to an increase in the prepaid amounts for drug product manufacturing and for Director and Officer insurance premiums.
- Current liabilities at December 31, 2021 decreased \$0.7 million compared to December 31, 2020 primarily due to
 a decrease in accounts payable associated with our commercialization and manufacturing activities for the
 production of PEDMARKTM and related regulatory expenses at year-end 2021.
- Working capital decreased between December 31, 2021 and December 31, 2020 by \$8.3 million. The decrease
 was a result of cash used in operations offset by \$5.0 million received from the Bridge Bank Loan and Security
 Agreement, and negligible amounts received from stock option exercises and interest income. Cash outflows
 related to the regulatory and pre-commercial development activities of PEDMARKTM and other general and
 administrative expenses.

Selected Cash Flow Data (dollars and shares in thousands)	Year Ended December 31, 2021			Year Ended December 31, 2020
Net cash used in operating activities	\$	(14,222)	\$	(15,595)
Net cash provided by investing activities		—		_
Net cash provided by financing activities		4,978		32,289
Net cash flow	\$	(9,244)	\$	16,694

The net cash flow used in operating activities for the year ended December 31, 2021 was approximately \$14.2 million as compared to \$15.6 million in 2020. This decrease relates to slightly lower pre-commercial activities in 2021 as some of the activities were completed in 2020. Net financing activities in 2021 provided approximately \$5.0 million from funding of the Bridge Bank Loan and Security Agreement, net of fees, and de minimis amounts arising from various option exercises. Financing activities in 2020 mainly consisted of \$31.8 million from the public issuance of our common shares and \$0.5 million from various option exercises.

We continue to pursue various strategic alternatives including collaborations with other pharmaceutical and biotechnology companies. Our projections of further capital requirements are subject to substantial uncertainty. Our working capital requirements may fluctuate in future periods depending upon numerous factors, including: our ability to obtain additional financial resources; our ability to enter into collaborations that provide us with up-front payments,

milestones or other payments; results of our research and development activities; progress or lack of progress in our preclinical studies or clinical trials; unfavorable toxicology in our clinical programs, our drug substance requirements to support clinical programs; change in the focus, direction, or costs of our research and development programs; headcount expense; the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing our patent claims; competitive and technological advances; the potential need to develop, acquire or license new technologies and products; our business development activities; new regulatory requirements implemented by regulatory authorities; the timing and outcome of any regulatory review process; and commercialization activities, if any.

We had cash and cash equivalents of approximately \$21.1 million as of December 31, 2021. We currently anticipate that our available capital resources, including our existing cash and cash equivalents and accounts receivable balances, will be sufficient to meet our expected working capital and capital expenditure requirements as our business is currently conducted for at least the next 12 months.

Financial Instruments

We invest excess cash and cash equivalents in high credit quality investments held by financial institutions in accordance with our investment policy designed to protect the principal investment. At December 31, 2021, we had approximately \$0.1 million in our cash accounts and \$21.0 million in savings and money market accounts. While we have never experienced any loss or write down of our money market investments since our inception, the amounts we hold in money market accounts are substantially above the \$250,000 amount insured by the FDIC and may lose value.

Our investment policy is to manage investments to achieve, in the order of importance, the financial objectives of preservation of principal, liquidity and return on investment. Investments may be made in U.S. or Canadian obligations and bank securities, commercial paper of U.S. or Canadian industrial companies, utilities, financial institutions and consumer loan companies, and securities of foreign banks provided the obligations are guaranteed or carry ratings appropriate to the policy. Securities must have a minimum Dun & Bradstreet rating of A for bonds or R1 low for commercial paper. The policy also provides for investment limits on concentrations of securities by issuer and maximum-weighted average time to maturity of twelve months. This policy applies to all of our financial resources. The policy risks are primarily the opportunity cost of the conservative nature of the allowable investments. As our main purpose is research and development, we have chosen to avoid investments of a trading or speculative nature.

We classify investments with original maturities at the date of purchase greater than three months which mature at or less than twelve months as current. We carry investments at their fair value with unrealized gains and losses included in other comprehensive income (loss); however, we have not held any instruments that were classified as short-term investments during the periods presented in this Annual Report.

Off-Balance Sheet Arrangements

Since our inception, we have not had any material off-balance sheet arrangements.

Contractual Obligations and Commitments

None.

Critical Accounting Policies and Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the financial statements and the reported amounts of revenue and expense during the reporting period. These estimates are based on assumptions and judgments that may be affected by commercial, economic and other factors. Actual results could differ from these estimates.

An accounting policy is considered to be critical if it requires an accounting estimate to be made based on assumptions about matters that are highly uncertain at the time the estimate is made, and if different estimates reasonably could have been used, or changes in the accounting estimates that are reasonably likely to occur periodically, could materially

impact the financial statements. The following description of critical accounting policies, judgments and estimates should be read in conjunction with our December 31, 2021 consolidated financial statements.

Stock-based Compensation

The calculation of the fair values of our stock-based compensation plans requires estimates that require management's judgments. Under ASC 718, the fair value of each stock option is estimated on the grant date using the Black-Scholes option-pricing model. The valuation models require assumptions and estimates to determine expected volatility, expected life, expected dividends and expected risk-free interest rates. The expected volatility was determined using historical volatility of our stock based on the contractual life of the award. The risk-free interest rate assumption was based on the yield on zero-coupon U.S. Treasury strips at the award grant date. We also used historical data to estimate forfeiture experience. In valuing options granted in the fiscal years ended December 31, 2021 and 2020, we used the following weighted average assumptions:

	Year Ended December 31, 2021	Year Ended December 31, 2020
Expected dividend	— %	— %
Risk-free interest rate	1.41 – 1.62 %	0.63 - 1.90 %
Expected volatility	122 %	136 - 148 %
Expected life	10.0 years	10.0 years

Common shares and warrants

Common shares are recorded as the net proceeds received on issuance after deducting all share issuance costs and the relative fair value of investor warrants. Warrants are recorded at relative fair value and are deducted from the proceeds of common shares and recorded on the consolidated statements of shareholders' equity as additional paid-in capital.

Outstanding Share Information

Our outstanding comparative share data at December 31, 2021 and December 31, 2020 is as follows (in thousands):

Outstanding Share Type	December 31, 2021	December 31, 2020	Change
Common shares	26,014	26,003	11
Warrants	39	39	_
Stock options	4,259	2,952	1,307
Total	30,312	28,994	1,318

Newly Adopted and Recent Accounting Pronouncements

In January 2021, the FASB issued ASU No. 2021-01, Reference Rate Reform (Topic 848). In this ASU, the FASB refines the scope of Topic 848 to clarify that certain optional expedients and exceptions therein for contract modifications and hedge accounting apply to contracts that are affected by the discounting transition. Specifically, modifications related to reference rate reform would not be considered an event that requires reassessment of previous accounting conclusions. The ASU also amends the expedients and exceptions in Topic 848 to capture the incremental consequences of the scope clarification and to tailor the existing guidance to derivative instruments affected by the discounting transition. The amendments in the ASU are effective immediately for all entities. Entities may choose to apply the amendments retrospectively as of any date from the beginning of an interim period that includes or is subsequent to March 12, 2020, or prospectively to new modifications from any date within an interim period that includes or is subsequent to January 7, 2021, up to the date that financial statements are available to be issued. The Company chose to apply amendments prospectively and concluded after evaluation that ASU 2021-01 has no significant effect on our consolidated financial statements.

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Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Money Market Investments

We maintain an investment portfolio consisting of U.S. or Canadian obligations and bank securities and money market investments in compliance with our investment policy. We do not hold any mortgaged-backed investments in our investment portfolio. Securities must have a minimum Dun & Bradstreet rating of A for bonds or R1 low for commercial paper. The policy also provides for investment limits on concentrations of securities by issuer and maximum-weighted average time to maturity of twelve months. This policy applies to all of our financial resources.

At December 31, 2021, we had \$21.0 million in money market investments and savings accounts as compared to \$29.6 million at December 31, 2020; these investments typically have minimal risk. We have not experienced any loss or write down of our money market investments for the years ended December 31, 2021 and 2020; however, the amounts we hold in money market accounts are substantially above the \$250,000 amount insured by the FDIC and may lose value.

Our investment policy is to manage investments to achieve, in the order of importance, the financial objectives of preservation of principal, liquidity and return on investment. Our risk associated with fluctuating interest rates on our investments is minimal and not significant to the results of operations. We currently do not use interest rate derivative instruments to manage exposure to interest rate changes. As our main purpose is research and development, we have chosen to avoid investments of a trade or speculative nature.

Foreign Currency Exposure

We are subject to foreign currency risks as we purchase goods and services which are denominated in Canadian dollars. To date, we have not employed the use of derivative instruments; however, we do hold Canadian dollars which we use to pay vendors in Canada and other corporate obligations. At December 31, 2021, we held approximately CAD\$0.03.

Item 8. Financial Statements and Supplementary Data

The financial statements required to be filed pursuant to this Item 8 are appended to this Annual Report on Form 10-K. A list of the financial statements filed herewith is found at "Index to Financial Statements" on Page F-1.

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

Our Chief Executive Officer (our principal executive officer) and Chief Financial Officer (our principal financial officer) have concluded based on their evaluation as of December 31, 2021 that our "disclosure controls and procedures" (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act are effective. 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 the company in the reports 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 also 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 officer and principal financial officer and principal accounting officer, or persons performing similar functions, as appropriate, to allow timely decisions regarding required disclosure.

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, as defined in rules promulgated under the Exchange Act, is a process designed

by, or under the supervision of, our Chief Executive Officer and Chief Financial Officer and affected by our Board of Directors, management and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of Consolidated Financial Statements for external purposes in accordance with GAAP. 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 the transactions and dispositions of our assets;
- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of Consolidated Financial Statements in accordance with GAAP, and that our receipts and expenditures are being made only in accordance with authorizations of our management and our Board of 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 Consolidated Financial Statements.

Internal control over financial reporting cannot provide absolute assurance of achieving financial reporting objectives because of its inherent limitations. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. Internal control over financial reporting can also be circumvented by collusion or improper override. Because of such limitations, there is a risk that material misstatements may not be prevented or detected on a timely basis by internal control over financial reporting. However, these inherent limitations are known features of the financial reporting process, and it is possible to design into the process safeguards to reduce, though not eliminate, this risk.

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2021. In making its assessment, management used the criteria established by the Committee of Sponsoring Organizations of the Treadway Commission, or COSO, in its 2013 *Internal Control — Integrated Framework*. Based on its assessment, management has concluded that our internal control over financial reporting was effective as of December 31, 2021. Because we are a non-accelerated filer and smaller reporting company, Haskell & White LLP, our independent registered public accounting firm, is not required to attest to or issue a report on the effectiveness of our internal control over financial reporting.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) identified in connection with the evaluation of our internal control over financial reporting that occurred during the last fiscal quarter covered by this Annual Report that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitation on the Effectiveness of Internal Controls

The effectiveness of any system of internal control over financial reporting is subject to inherent limitations, including the exercise of judgment in designing, implementing, operating, and evaluating the controls and procedures, and the inability to eliminate misconduct completely. Accordingly, any system of internal control over financial reporting can only provide reasonable, not absolute, assurances. In addition, 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. We intend to continue to monitor and upgrade our internal controls as necessary or appropriate for our business, but cannot assure that such improvements will be sufficient to provide us with effective internal control over financial reporting.

Item 9B. Other Information

None.

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Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The following table sets forth the name of each of our executive officers and directors, such person's principal occupation or employment, all other positions with us held by such person, if any, the year in which such person became a director of Fennec and such person's age.

Our Board has an Audit Committee, a Compensation Committee, and a Governance Committee. The current members of such committees are noted in the table below:

Name and Province/State and Country of Residence, Position	Current Principal Occupation and Principal Occupation For Previous Five Years	Director Since	Age
Rostislav Raykov, New Jersey, USA Chief Executive Officer, Director	CEO of Fennec Pharmaceuticals Inc.; previously Portfolio Manager at Alchem Partners; previously Portfolio Manager at John Levin & Company	July 2009	46
Robert Andrade, Texas, USA Chief Financial Officer	CFO of Fennec Pharmaceuticals; previously senior analyst at Magnetar Capital; previously Portfolio Manager at Millennium Partners	N/A	46
Chris A. Rallis, North Carolina, USA Director ⁽¹⁾⁽²⁾	Executive in-residence at Pappas Capital; previously CEO of ImmunoBiosciences	August 2011	68
Marco Brughera, Milano, Italy Director ⁽²⁾⁽³⁾	Former Group CEO of Leadiant Biosciences SpA; previously Global Head Rare Disease and R&D at Sigma-tau; VP Preclinical Development at Nerviano Medical Sciences.	August, 2016	66
Adrian J. Haigh, Dublin, Ireland Director ⁽¹⁾⁽³⁾	Senior Vice President and General Manager of EMEA Region at PTC Therapeutics; previously Chief Operating Officer at Gentium GmbH; previously Regional VP Commercial Operations at Biogen Idec	April 2014	61
Khalid Islam, Zug, Switzerland Chairman of Board, Director ⁽¹⁾	Founder/co-founder of Sirius Healthcare Partners GMbH; previously Chairman and CEO of Gentium S.p.A.; previously CEO of Arpida AG	April 2014	65
Jodi Cook, Pennsylvania, USA, Director ⁽²⁾⁽³⁾	Former SVP, Head of Gene Therapy Strategy PTC Therapeutics, Inc, Former COO Agilis Biotherapeutics, Former Assistant Professor of Audiology Mayo Clinic	September 2019	54
(1) Member of the Audit Committee			

(1) Member of the Audit Committee

(2) Member of the Compensation Committee

(3) Member of the Governance Committee



Rostislav Raykov

Mr. Raykov has served as a director of Fennec since July 2009 and as Chief Executive Officer since July 2009. From January 2006 to December 2007, Mr. Raykov was a portfolio manager for Alchem Investment Partners and John Levin & Co. Prior to founding Alchem, Mr. Raykov was a portfolio manager and securities analyst for John A. Levin & Co. Event Driven Fund (2002-2005). Prior to joining John A. Levin & Co., Mr. Raykov was a securities analyst for the Merger Fund at Tiedemann Investment Group (1999-2002) and an investment banking analyst at Bear Stearns (1998-1999). Mr. Raykov earned a B.S. in Business Administration from the University of North Carolina at Chapel Hill. As a result of these and other professional experiences, Mr. Raykov has financial expertise and experience with the Corporation as it has developed within the drug development industry and, as such, is able to provide the Corporation with unique insight and guidance.

Robert Andrade

Mr. Andrade has served as Chief Financial Officer since November 2015. Mr. Andrade was previously Chief Financial Officer and Director of Fennec from September 2009 until August 2013. In addition to his role with Fennec, Mr. Andrade was a private investor in 2015, and a senior analyst at Magnetar Capital from 2013 - 2014. Mr. Andrade graduated from University of Southern California, where he earned a Masters of Arts degree and Bachelor of Arts degree in economics.

Chris A. Rallis

Mr. Rallis has served as a director of Fennec since August 2011. Mr. Rallis has been an executive-in-residence at Pappas Capital, a life science venture capital firm since January 2008. Previously, Mr. Rallis was the President and Chief Executive Officer of ImmunoBiosciences, Inc. ("IBI"), a vaccine technology company formerly located in Raleigh, North Carolina from April 2006 through June 2007. Prior to joining IBI, Mr. Rallis served as an executive in residence (part-time) for Pappas Capital, and as a consultant for Duke University and Panacos Pharmaceuticals, Inc. Mr. Rallis is the former President and Chief Operating Officer ("COO") and director of Triangle Pharmaceuticals, Inc., which was acquired by Gilead Sciences in January 2003 for approximately \$465 million. Prior to assuming the role of President and COO in March 2000, he was Executive Vice President, Business Development and General Counsel. While at Triangle, Mr. Rallis participated in 11 equity financings generating gross proceeds of approximately \$500 million. He was also primarily responsible for all business development activities which included a worldwide alliance with Abbott Laboratories and the in-licensing of ten compounds. Before joining Triangle in 1995, Mr. Rallis served in various business development and legal management roles with Burroughs Wellcome Co. over a 13-year period, including Vice President of Strategic Planning and Business Development. Mr. Rallis also serves on the board of Lung Cancer Initiative of NC, located in Raleigh, North Carolina. Mr. Rallis received his A.B. degree in economics from Harvard College and a J.D. from Duke University. As a result of these and other professional experiences, Mr. Rallis possesses particular healthcare industry knowledge and experience which strengthens the Board's collective qualifications, skills, and experience.

Dr. Marco Brughera

Dr. Brughera has been a director of Fennec since August 2016. Currently, he is the founder at Brucon srls and Strategic Advisor at Essetifin. From 2011 until 2021, Dr. Brughera had been CEO of Lediant Biosciences and has held several positions for the Sigma-Tau Group, including CEO and Global Head of Sigma Tau Rare Disease, President of Sigma-Tau Research and President of Sigma-Tau Pharmaceuticals. He drove the commercial revival of a lead oncology product line resulting in its successful sale for a total of around \$900M. He also successfully out-licensed the Defibrotide US rights to Jazz Pharmaceuticals. From 2004 to 2010, Dr. Brughera served as the Vice President of Preclinical Development at Nerviano Medical Sciences (NMS), a pharmaceutical oncology-focused integrated discovery and development company. He also served as the Managing Director at Accelera, an independent contract research organization with the NMS Group. From 1999 to 2004, Dr. Brughera held several senior level positions in the areas of research and development with Pharmacia and Pfizer. Prior to 1999, he held various positions at Pharmacia & Upjohn and Farmitalia Carlo Erba SpA, an Italian pharmaceutical company. He currently serves on the Board of Naicons and previously was Board member of Soligenix, Lee's Pharmaceuticals, Exelead and Gentium.

Dr. Brughera earned his degree in veterinary medicine from the University of Milan and is a European Registered Toxicologist. Dr. Brughera has wide-spread experience and knowledge of pharmaceutical drug development in international companies. His knowledge in particular, of clinical drug development in Europe, deepens the Board's collective qualifications, skills and experience.

Adrian J. Haigh

Mr. Haigh has been a director of Fennec since April 2014. Mr. Haigh has been Senior Vice President and Head of International Operations at PTC Therapeutics since September 2014. Previously Mr. Haigh served as Chief Operating Officer at Gentium GmbH since March 2011. Prior to joining Gentium, Mr. Haigh served as Regional VP Commercial Operations at Biogen Idec where he managed several affiliates and also the global distributor business and prior to that was the General Manager of Amgen Nordis and Portugal. He served as the Executive Vice President of Global Marketing and Corporate Planning at EUSA Pharma and joined EUSA from Amgen where he led the international oncology franchise. Mr. Haigh previously has held senior commercial and marketing positions at SmithKline Beecham, Schering Plough, Organon and Novo Nordisk. He has been a Director of Fennec Pharmaceuticals Inc. since April 28, 2014. He received a Bachelor of Arts with Honors in Economic History from Huddersfield Polytechnic, West Yorkshire, England and a Diploma in Marketing from the Institute of Marketing. As a result of these and other professional experiences, Mr. Haigh has extensive international oncology development expertise which strengthens the Board's collective qualifications, skills and experience.

Dr. Khalid Islam

Dr. Islam has been a director of Fennec since April 2014 and is our current Chairman of the Board. Dr. Islam was the Chairman and CEO of Gentium S.p.A. (a Nasdaq-listed company; 2009-2014) where he led the transition from a lossmaking to a cash-flow positive and profitable company. Under his leadership, the company value increased from US\$25 million leading to a successful all cash US\$1 billion merger with Jazz Pharmaceuticals, plc. Subsequent to the sale of Gentium, Dr. Islam has been involved from both an advisory and board level in several public and private healthcare related companies. From 1999-2008, Dr. Islam was President and CEO of Arpida AG where he transitioned the early-stage start-up to a SWX-listed company and raised US\$300 million in the IPO and follow-ons. From 1987-1999, he held various positions in HMR & MMD (now Sanofi-Aventis). From 1977-1987, Dr. Islam worked in academia at Imperial College (Univ. of London) and in Milan University, where he was a contract professor. Dr. Islam is a graduate of Chelsea College and received his Ph.D. from Imperial College, University of London. He holds several patents and has published over 80 articles in leading journals. He is an advisor to the venture group Kurma Biofund (Paris). He is a founder/co-founder of Sirius Healthcare Partners GmbH (Zurich), PrevAbr LLC (D.C.), BioAim LLC (L.A.) & Life Sciences Management GmbH (Zug). Dr. Islam is Board Chair at Minoryx Therapeutics (Spain) and Gain Therapeutics (Switzerland), a public company. He currently serves on the board of Processa Pharmaceuticals (PCSA), which is publicly traded. In the past, he has served on the Board of Directors of Immunomedics (USA), Pcovery Aps (Copenhagen), Adenium Aps (Copenhagen), C10 Pharma AS (Oslo), Karolinska Development (Sweden) and MolMed S.p.A. (Italy). Dr. Islam's extensive international pharmaceutical expertise in transitioning companies from development to production strengthens the Board's collective qualifications, skills and experience.

Dr. Jodi Cook

Dr. Cook has been a director of Fennec since September 2019. Dr. Cook previously served as SVP and Head of Gene Therapy Strategy at PTC Therapeutics from August 2018 until February 2020. Previously she was one of the founding members and Chief Operating Officer of Agilis Biotherapeutics, a clinical-stage company focused on gene therapies for rare diseases of the central nervous system, from December 2013 until its acquisition by PTC Therapeutics in August 2018. While at Agilis she led the sale of the company to PTC in a deal that represented significant value to all parties. Dr. Cook's career spans a wide range of experiences including VP of Clinical Research at InSound Medical and Director of Audiology at Songbird Hearing, both successful biotech start-up companies within the hearing industry. She has been Assistant Professor of Audiology and Director of the Hearing Aid Program at Mayo Clinic. Dr. Cook earned a BA from Loyola University in Maryland, M.Aud. from University of South Carolina, and PhD from Arizona State University in Hearing Science. She completed a clinical fellowship at Johns Hopkins School of Medicine in Baltimore, MD. Her extensive scientific, clinical and executive business experience strengthens the Board's collective qualifications, skills and expertise.

Audit Committee

On behalf of the Board, the Audit Committee of the Board retains, oversees and evaluates our independent auditors, reviews the financial reports and other financial information provided by us, including audited financial statements, and discusses the adequacy of disclosure with management and the auditors. The Audit Committee also reviews the performance of the independent auditors in the annual audit and in assignments unrelated to the audit, assesses the independence of the auditors, and reviews their fees. The Audit Committee is also responsible for reviewing our internal controls over financial reporting and disclosure. The Audit Committee operates under a written charter adopted by the Board.

The directors have appointed an Audit Committee consisting of three directors: Chris A. Rallis, Khalid Islam and Adrian Haigh, each of whom is independent and financially literate within the meaning of National Instrument 52-110 – Audit Committees and is independent under Rule 5605(a)(2) of the Nasdaq listing standards. In addition, the Board has determined that Mr. Rallis qualifies as an "audit committee financial expert," as defined in Item 407(d)(5) of Regulation S-K promulgated by the SEC based on his business and financial experience described above.

Code of Ethics

In February 2004, our Board adopted a Mandate of the Board of Directors, Corporate Governance Guidelines and a Code of Business Conduct and Ethics (the "Conduct and Ethics Code") applicable to all of our officers, directors and employees. We are committed to adhering to applicable legal requirements and maintaining the highest standards of conduct and integrity. The Conduct and Ethics Code sets out the legal and ethical standards of conduct for our personnel and addresses topics such as: reporting obligations and procedures; honest and ethical conduct and conflicts of interest; compliance with applicable laws and Company policies and procedures; confidentiality of corporate information; use of corporate assets and opportunities; public disclosure and books and records; and non-retaliation. The Conduct and Ethics Code was updated in June of 2019 and is available on our website at www.fennecpharma.com.

We will post any amendment to this code, as well as any waivers that are required to be disclosed by the rules of the SEC, on our website promptly following the date of such amendment or waiver. We undertake to provide to any person without charge, upon request, a copy of the Conduct and Ethics Code by writing to Attn: Code of Ethics Request, Fennec Pharmaceuticals Inc., 68 TW Alexander Drive, PO Box 13628, Research Triangle Park, North Carolina 27709.

Item 11. Executive Compensation

Summary Compensation Table

The following table sets out certain information respecting the compensation paid to our Chief Executive Officer, our Chief Financial Officer, and our former Chief Commercial Officer ("Named Executive Officers") for the fiscal years ended December 31, 2021 and December 31, 2020.

				Restricted Share O	Option Awards	
Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Unit Awards (\$) ⁽²⁾	(\$) ⁽¹⁾	Total (\$)
Rostislav Raykov, CEO	2021	468,452		_	2,951,923	3,420,375
	2020	430,000	_		1,694,216	2,124,216
Robert Andrade, CFO	2021	339,409		153,000	1,006,364	1,498,773
	2020	311,750	—	—	847,108	1,158,858
Shubh Goel, CCO	2021	376,505		153,000	1,006,364	1,535,869
	2020	360,000	_		169,422	529,422

(1) Represents the aggregate grant date fair value computed in accordance with FASB ASC Topic 718. Dollar value amounts are based on individual grants to each of Mr. Raykov, Mr. Andrade and Ms. Goel of 300,000, 250,000 and 250,000 and 75,000, 100,000 and 125,000, and 75,000, 100,000 and 25,000 options, respectively, on December 20, 2021, June 2, 2021 and May 15, 2020, at an exercise price of \$4.08, \$7.53 and \$6.93 per common share, respectively. On December 20, 2021, Mr. Andrade and Ms. Goel were also awarded 37,500 Restricted Share Units each. The December 20, 2021 awards and grants to the executives all vest conditionally upon FDA approval of

PEDMARKTM in calendar year 2022. All option grants expire 10 years after grant date. The June, 2021 and May, 2020 grants vest in the following manner: one-third of these options shall vest and may be exercised one year after the grant date (the "Vesting Commencement Date"). The remaining two-thirds of the options shall vest monthly at a rate of 1/24th of the remaining grant and shall be exercisable as of the last day of each following month after the Vesting Commencement Date. As of the third anniversary of the grant date, all of the options shall be vested.

Rostislav Raykov

Mr. Raykov has been employed by us since July 2009. Pursuant to an employment agreement dated May 3, 2010 between Mr. Raykov and Fennec, Mr. Raykov is employed as our Chief Executive Officer and: (a) received an initial annual salary in the amount of \$140,000, subject to annual adjustment by our Board of Directors, (b) upon approval by shareholders of our amended stock option plan was granted options to purchase up to 5.0% of our common shares estimated by us to be outstanding upon completion of our 2010 rights offering, and (c) may receive annual bonuses at the sole discretion of the Board. If Mr. Raykov's employment terminates due to a change of control of Fennec, Mr. Raykov's remaining unvested options shall immediately vest and be fully exercisable. If Mr. Raykov is dismissed from employment by us for any reason other than "for cause," we are obligated to pay Mr. Raykov severance compensation equal to twelve months of salary. The initial term of the agreement was for one year and the agreement automatically extends for additional one-year periods unless terminated by either party in accordance with the agreement. Effective January 1, 2022, Mr. Raykov's current salary is \$458,402 per year.

Robert Andrade

Mr. Andrade has been employed by us since November 2015. Pursuant to an employment agreement dated November 13, 2015, Mr. Andrade is employed as our Chief Financial Officer and: (a) received an initial annual salary in the amount of \$165,000, and (b) may receive annual bonuses at the sole discretion of the Board. If Mr. Andrade's employment terminates due to a change of control of the Fennec, Mr. Andrade's remaining unvested options shall immediately vest and be fully exercisable. If Mr. Andrade is dismissed from employment by us for any reason other than "for cause," we are obligated to pay Mr. Andrade severance compensation equal to six months of salary. Effective January 1, 2022, Mr. Andrade's current salary is \$332,075 per year.

Shubh Goel

Ms. Goel commenced employment with us in September 2019. Pursuant to an employment agreement dated September 9, 2019, Ms. Goel was employed as our Chief Commercial Officer and: (a) received an initial annual salary in the amount of \$360,000, subject to annual adjustment by our Board of Directors, and (b) was eligible to receive an annual bonus of up to 40% of her base salary per twelve month period, at the discretion of the CEO and the Board of Directors. If Ms. Goel's employment was terminated by us for any reason other than "for cause", we would have been obligated to pay Ms. Goel (i) severance in the amount of six months of employees base salary, (ii) prorated share of any target bonus earned by Ms. Goel and, (iii) accelerated vesting of stock options. The initial term of the agreement was for one year and the agreement automatically extended for additional one-year periods unless terminated by either party in accordance with the agreement. Ms. Goel tendered her resignation on January 31, 2022.

In addition to their employment agreements, Mr. Raykov, Mr. Andrade and Ms. Goel are a party to a confidentiality and intellectual property agreement with the Company.

In the employment agreements for each of Mr. Raykov, Mr. Andrade and Ms. Goel, "for cause" is generally defined as (1) material breach of the terms of the employment or intellectual property agreements; (2) failure to perform the duties inherent in their position in good faith and in a reasonable and appropriate manner; or (3) acts of fraud or embezzlement or other intentional misconduct which adversely affects our business.

Payments on Termination

The following table provides details regarding the estimated incremental payments from us to each of the Named Executive Officers assuming termination without cause on December 31, 2021. Ms. Goel's resignation was voluntary and there is no severance owed.

Name	Severance	ce Estimated Bonus V		Value of benefits	
Rostislav Raykov, CEO	\$ 442,900	\$ —	\$	442,900	
Robert Andrade, CFO	\$ 160,423	\$	\$	160,423	
Shubh Goel, CCO	\$ 185,400	\$ —	\$	185,400	

Payments on Change of Control

The following table provides details regarding the estimated incremental payments from us to each of the Named Executive Officers upon change of control.

	Change of Control				
Name	Multiple	Estim	ated Bonus ⁽¹⁾	Valu	e of benefits
Rostislav Raykov, CEO	2 X	\$	872,900	\$	872,900
Robert Andrade, CFO	1.25 X	\$	467,872	\$	467,872

(1) Change of control payments are calculated based on the two-year annualized average salary plus cash bonus as calculated as of December 31, 2021.

In addition to the payments above, an incentive plan has been established pursuant to which, upon completion of a change in control transaction, 1% of the transaction value (up to a maximum of \$2,000,000) be set aside and paid to key personnel upon completion of such change in control transaction, with 50% of such incentive pool being payable to the CEO and the balance to other key personnel as determined by the CEO in consultation with the Compensation Committee.

Equity Grants, Exercises and Holdings

The following table sets forth information concerning the number and value of unexercised restricted share units and options held by each Named Executive Officer as of December 31, 2021. All executive awards, with the exception of those expiring 04/04/2029, 09/09/2029, 05/15/2030 and 06/02/2031, vest and are exercisable immediately. Grants expiring 12/20/2031 will vest immediately upon FDA approval of PEDMARKTM if that approval occurs in 2022 and the

⁷⁶

Named Executive Officer is still employed by us at that time. If those conditions are not met, those grants will be forfeited. Our current stock option plan provides for equity awards and grants denominated in US and CAD dollars.

	Numbo Restricted Unit	l Share	Number	of Options			
Name	Awarded		Granted	Exercisable	Option Exe	ercise Price	Expiration Date
Rostislav Raykov			300,000		USD\$	4.08	12/20/2031
			250,000		USD\$	7.53	06/02/2031
			250,000	138,893	USD\$	6.93	05/15/2030
			150,000	137,501	USD\$	4.83	04/04/2029
			100,000	100,000	USD\$	8.38	02/06/2028
			100,000	100,000	USD\$	5.10	06/27/2027
			150,000	150,000	USD\$	2.45	07/05/2026
	—	—	25,000	25,000	USD\$	2.69	12/31/2024
	—		83,333	83,333	USD\$	1.59	01/24/2024
	—		16,666	16,666	USD\$	0.72	08/23/2023
	—		50,000	50,000	USD\$	1.05	11/20/2022
Robert Andrade	37,500		75,000	—	USD\$	4.08	12/20/2031
	—	—	100,000	—	USD\$	7.53	06/02/2031
	—	—	125,000	69,448	USD\$	6.93	05/15/2030
	—	—	80,000	73,333	USD\$	4.83	04/04/2029
	—		50,000	50,000	USD\$	8.38	02/06/2028
	—	—	50,000	50,000	USD\$	5.10	06/27/2027
	—	_	75,000	75,000	USD\$	2.45	07/05/2026
Shubh Goel	37,500	—	75,000	—	USD\$	4.08	12/20/2031
	—	—	100,000		USD\$	7.53	06/02/2031
	_	—	25,000	13,893	USD\$	6.93	05/15/2030
	—	—	175,000	136,112	USD\$	4.74	09/09/2029

Compensation of Directors

Director Compensation Table

The following table summarizes the compensation earned by our non-executive directors for the year ended December 31, 2021.

Name	Fees paid in Cash	Stock Awards	Option Awards ⁽¹⁾⁽²⁾	Total
Dr. Islam	85,000		178,922	263,922
Mr. Brughera	40,000		143,138	183,138
Mr. Haigh	40,000		143,138	183,138
Dr. Cook	35,000	_	143,138	178,138
Mr. Rallis	42,500	_	143,138	185,638
Total	\$ 242,500	\$ —	\$ 751,474	\$ 993,974

(1) Represents the aggregate grant date fair value computed in accordance with FASB ASC Topic 718.

(2) Detail of option grants are presented in the following table:

Name	Date of Grant	Number of Options Granted	Option Exercise Price \$USD
Mr. Rallis	June 29, 2021	20,000	7.52
Mr. Brughera	June 29, 2021	20,000	7.52
Mr. Haigh	June 29, 2021	20,000	7.52
Dr. Islam	June 29, 2021	25,000	7.52
Jodi Cook	June 29, 2021	20,000	7.52
Total		105,000	

The annual compensation considerations for non-executive directors also include the awarding of stock options. We believe that granting of options to the non-executive directors serves three primary purposes: (1) to recognize the

significant time and effort commitments of being a member of our Board; (2) to provide long-term incentives for future efforts since the value of the options is directly dependent on our market valuation; and (3) to retain quality individuals. When determining whether and how many new option grants will be made, the Compensation Committee takes into account the amount and terms of any outstanding options. We do not require our non-executive directors to own a specific amount of our common shares.

Each of Adrian J. Haigh, Khalid Islam, Marco Brughera, Jodi Cook and Chris A. Rallis has entered into an Independent Director Agreement with the Company, which provides for cash compensation as set forth by the Compensation Committee commensurate with that member's responsibilities. The Compensation Committee may also remunerate members in the form of a grant of options to purchase shares of our common shares. The options immediately vest when granted and are otherwise subject to the terms and conditions of our stock option plan, as amended. The Independent Director Agreements also provide for the reimbursement of such director's reasonable travel and related expenses incurred in the course of attending board meetings.

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

The following table sets forth information regarding our common shares beneficially owned as of February 25, 2022 by: (i) each of our officers and directors; (ii) all officers and directors as a group; and (iii) each person known by us to beneficially own five percent or more of our outstanding common shares. Except as indicated below, the security holders listed possess sole voting and investment power with respect to the shares beneficially owned by that person. Except as otherwise indicated below, the address for each listed shareholder is c/o Fennec Pharmaceuticals Inc., 68 TW Alexander Drive, PO Box 13628, Research Triangle Park, North Carolina 27709.

Name	Common shares	Common shares Options Exercisable Within 60 Days	Common shares Purchase Warrants Exercisable Within 60 Days	Total Stock and Stock Based Holdings ⁽¹⁾	% Ownership ⁽¹⁾
Adrian J. Haigh		253,579		253,579	0.97 %
Dr. Khalid Islam		338,825		338,825	1.29 %
Robert Andrade	153,273	329,170		482,443	1.83 %
Marco Brughera	_	135,545	_	135,545	0.52 %
Jodi Cook		60,000		60,000	0.23 %
Chris A. Rallis	3,333	208,517	—	211,850	0.81 %
Shubh Goel		161,117		161,117	0.62 %
Rostislav Raykov	196,578	823,616	_	1,020,194	3.80 %
All Officers and Directors as a Group	353,184	2,310,369		2,663,553	9.40 %
Southpoint Capital Advisors, LP. ⁽²⁾	4,077,214	—	—	4,077,214	15.67 %
Essetifin SpA ⁽³⁾	3,993,694			3,993,694	15.35 %
Sonic Fund II, LP. ⁽⁴⁾	2,407,357	—		2,495,753	9.25 %

(1) For purposes of this table "beneficial ownership" is determined in accordance with Rule 13d-3 under the Exchange Act, pursuant to which a person or group of persons is deemed to have "beneficial ownership" of any common shares that such person or group has the right to acquire within 60 days after February 25, 2022. For purposes of computing the percentage of outstanding common shares held by each person or group of persons named above, any shares that such person or group has the right to acquire within 60 days after February 25, 2022 are deemed outstanding but are not deemed to be outstanding for purposes of computing the percentage ownership of any other person or group. As of February 25, 2022 there were 26,013,519 common shares issued and outstanding.

(2) Southpoint Capital Advisors, LP, 623 Fifth Avenue, Suite 2503, New York, New York 10022. John S. Clark, II holds voting and investment power over the shares owned by Southpoint Capital Advisors, LP.

(3) Essetifin SpA, Via Sudafrica 20, Rome, Italy 00144. Mario Artali holds voting and investment power over the shares owned by Essetifin SpA.

(4) Sonic Fund II, LP, 400 Hobron Lane, Suite 3709, Honolulu, HI 96815. Lawrence Kam holds voting and investment power over the shares held by Sonic Fund II, LP.

Equity Compensation Plan Information

The following table provides certain information with respect to securities authorized for issuance under equity incentive plans as of December 31, 2021.

(share amounts are in thousands):

	(a) Number of securities to be issued upon exercise of outstanding	(b) Weighted-average exercise price of outstanding options, warrants and	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in
Plan Category	options warrants and rights	rights	Column (a))
Equity compensation			
plans approved by			
security holders	4,259	USD \$5.13	2,249
Total	4,259		2,249

* Our current stock option plan allows for the issuance of equity awards and grants denominated in both U.S. dollars and Canadian dollars. At December 31, 2021, there were 2.2 million common shares available for future grants under our current stock option plan.

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

Related Party Transactions

There were no reportable transactions with related parties during the year ended December 31, 2021 in which the amount involved exceeded the lesser of \$120,000 or one percent of the average of our total assets at year-end for the last two completed fiscal years.

Indemnifications Related to Officers and the Board of Directors.

We have agreed to indemnify members of our Board of Directors (the "Board") and certain of our officers if they are named or threatened to be named as a party to any proceeding by reason of the fact that they acted in such capacity. We maintain directors' and officers' ("D&O") insurance coverage to protect against such losses. We have not historically incurred any losses related to these types of indemnifications. Presently, we are defending a suit against our Board and certain named officers. Management is unable to estimate a dollar value related to the suit, nor can it determine the probability of an outcome either in favour or against the Company. As a result, we have not recorded any liabilities related to such indemnifications as of December 31, 2021. In addition, as a result of D&O insurance policy coverage, we believe these indemnification agreements are not significant to our results of operations.

Director Independence

The Board of Directors is composed of a majority of independent directors. The Board applies the definition of independence found in the Nasdaq listing standards and in Canadian National Instruments 52-110 and 58-101 and National Policy 58-201. The Board has determined that Mr. Brughera, Haigh, Islam, Rallis and Ms. Cook are "independent." Mr. Raykov, our Chief Executive Officer, is considered to have a material relationship with us by virtue of his executive officer position and is therefore not independent. We are of the view that the composition of our Board reflects a diversity of background and experience that are important for effective corporate governance. Other directorships held by Board members are described in this Annual Report under the heading "Directors and Executive Officers."

Item 14. Principal Accounting Fees and Services

The following presents the aggregate fees for professional services and other services rendered by our independent auditors, Haskell & White LLP (PCAOB ID# 200), in fiscal year 2021 and 2020:

	Fi	iscal Year 2021	Fi	scal Year 2020
Audit Fees ⁽¹⁾	\$	73,100	\$	51,600
Audit-Related Fees ⁽²⁾		15,500		40,000
Tax Fees ⁽³⁾				
All Other Fees ⁽⁴⁾		—		—
Total	\$	88,600	\$	91,600

(1) *Audit Fees* include fees for the standard audit work that needs to be performed each year in order to issue an opinion on the consolidated financial statements of the Company. It also includes fees for services that can only be provided by the Company's auditor such as auditing of non-recurring transactions.

(2) *Audit-Related Fees* include fees assurance and related services that are reasonably related to the performance of the audit or review and are traditionally performed by the independent accountant.

(3) Tax Fees

(4) All Other Fees include fees for products and services other than Audit Fees, Audit Related Fees and Tax Fees.

The Audit Committee does not have formal pre-approval policies and procedures; however, prior to their engagement by us, the Audit Committee approved all of the services performed by Haskell & White LLP as required by SEC regulation.

PART IV

Item 15. Exhibits and Financial Statement Schedules

- (a) The following documents are included as part of this Annual Report filed on Form 10-K:
 - 1. Financial Statements See Index to Financial Statements on page F-1.
 - 2. All schedules are omitted as the information required is inapplicable or the information is presented in the financial statements.
 - 3. Exhibits:

Exhibit No.	Description	Location
3.1	Notice of Articles dated August 25, 2011	Exhibit 3.2I to the Form 8-K of the Company filed August 26, 2011
3.2	Articles dated August 25, 2011	Exhibit 3.2II to the Form 8-K of the Company filed August 26, 2011
3.3	Notice of Alteration Dated September 3, 2014	Exhibit 3.1 to the Form 8-K of the Company filed September 9, 2014
10.1	Fennec Amended and Restated Stock Option Plan*	Exhibit 10.1 to the Form 8-K of the Company filed September 29, 2017
10.2	Executive Employment Agreement dated May 3, 2010 by and between Fennec and Rostislav Raykov*	Exhibit 10.28 to the Form 10-Q of the Company filed May 14, 2010
10.3	Form of Independent Director Agreement, dated May 3, 2010	Exhibit 10.31 to the Form 10-Q of the Company filed May 14, 2010
10.4	Executive Employment Agreement dated November 12, 2015 by and between Fennec and Robert Andrade*	Exhibit 10.40 to the Form 10-Q of the Company filed November 12, 2015
10.5	Purchase Agreement, dated May 9, 2016, between Fennec Pharmaceuticals Inc. and Elion Oncology, LLC.	Exhibit 10.42 to the Form 10-Q of the Company filed May 12, 2016
10.6	Loan and Security Agreement dated as of February 1, 2019 by and between Fennec Pharmaceuticals, Inc. and Western <u>Alliance Bank</u>	Exhibit 10.1 to the Form 8-K of the Company filed February 4, 2019
10.7	First Amendment to Loan and Security Agreement dated as of June 25, 2020 by and between Fennec Pharmaceuticals, Inc. and Western Alliance Bank	Exhibit 10.1 to the Form 8-K of the Company filed June 26, 2020
10.8	Second Amendment to Loan and Security Agreement dated as of June 24, 2021 by and between Fennec Pharmaceuticals, Inc and Western Alliance Bank	Exhibit 10.1 to the form 8-K of the Company filed June 24, 2021
10.9	<u>Third Amendment to Loan and Security Agreement dated as of</u> <u>January 27, 2022 by and between Fennec Pharmaceuticals, Inc</u> <u>and Western Alliance Bank</u>	Exhibit 10.1 to the form 8-K of the Company filed January 31, 2022
10.10	<u>At The Market Offering Agreement, dated October 30, 2020,</u> <u>between Fennec Pharmaceuticals Inc. and H.C. Wainwright &</u> <u>Co., LLC</u>	Exhibit 1.1 to the Form 8-K of the Company filed October 30, 2020
10.11	Executive Employment Agreement of Shubh Goel	Exhibit 10.1 to the form 8-K of the Company filed September 9, 2019
16.1	Letter Regarding Change in Certifying Accountant	Exhibit 16.1 to the Form 8-K of the Company filed May 17, 2017
21	<u>Subsidiaries</u>	Exhibit 21 to the 10-K of the Company filed February 14, 2020
23.1	Consent of Haskell & White LLP Independent Registered Public Accounting Firm	Filed herewith

Exhibit No.	Description	Location				
31.1	Certification of Chief Executive Officer of the Company in accordance with Section 302 of the Sarbanes-Oxley Act of 2002	Filed herewith				
31.2	<u>Certification of Chief Financial Officer of the</u> <u>Company in accordance with Section 302 of the</u> <u>Sarbanes-Oxley Act of 2002</u>	Filed herewith				
32.1	Certification of Chief Executive Officer and Chief Financial Officer of the Company in accordance with Section 906 of the Sarbanes-Oxley Act of 2002	Filed herewith				
99.1	Press Release for Fiscal Year Ended December 31, 2020	Filed herewith				
101.1	Interactive Data File	Filed herewith				
104	Cover Page Interactive Data File – The cover page interactive data file does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document	Filed herewith				
* Indicates a management contract or compensatory plan.						

Item 16. Form 10-K Summary

None.

SIGNATURES

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

Fennec Pharmaceuticals Inc.

By:

/s/ Rostislav Raykov Rostislav Raykov Chief Executive Officer and Director

Date: February 28, 2022

We, the undersigned directors and officers of Fennec Pharmaceuticals Inc., do hereby constitute and appoint Rostislav Raykov, as our true and lawful attorney-in-fact and agent with power of substitution, to do any and all acts and things in our name and behalf in our capacities as directors and officers and to execute any and all instruments for us and in our names in the capacities indicated below, which such attorney-in-fact and agent may deem necessary or advisable to enable said corporation to comply with the Securities Exchange Act of 1934, as amended, and any rules, regulations and requirements of the Securities and Exchange Commission, in connection with this Annual Report on Form 10-K, including specifically but without limitation, power and authority to sign for us or any of us in our names in the capacities indicated below, any and all amendments hereto; and we do hereby ratify and confirm all that said attorney-in-fact and agent, shall do or cause to be done by virtue hereof.

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

Signatures	Title	Date
/s/ Rostislav Raykov Rostislav Raykov	Chief Executive Officer (principal executive officer) and Director	February 28, 2022
/s/ Robert Andrade Robert Andrade	Chief Financial Officer (principal financial officer and principal accounting officer)	February 28, 2022
/s/ Adrian J. Haigh Adrian J. Haigh	Director	February 28, 2022
/s/ Dr. Khalid Islam Dr. Khalid Islam	Director	February 28, 2022
/s/ Chris A. Rallis Chris A. Rallis	Director	February 28, 2022
/s/ Marco Brughera Marco Brughera	Director	February 28, 2022
/s/ Jodi Cook Jodi Cook	Director	February 28, 2022
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FENNEC PHARMACEUTICALS INC. INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors and Fennec Pharmaceuticals Inc.

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Fennec Pharmaceuticals Inc. and subsidiaries (the "Company") as of December 31, 2021 and 2020, and the related consolidated statements of operations, shareholders' equity, and cash flows for each of the years then ended, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of the Company as of December 31, 2021 and 2020, and the consolidated results of its operations and its cash flows for each of the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

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

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

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

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of the critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing separate opinions on the critical audit matter or on the accounts or disclosures to which they relate.

Fair Value of Stock Options – Refer to Note 4 to the Consolidated Financial Statements

Critical Audit Matter Description:

The Company uses the Black-Scholes option-pricing model to estimate the fair value of its stock options. The Black-Scholes option-pricing model involves the use of significant estimates, including the following:

- Expected dividend yield;
- Risk-free interest rate;
- Expected share price volatility; and
- Expected life of the award.

Given the significant estimates involved in estimating the fair value of stock options, the related audit effort in evaluating management's estimates in determining the fair value of stock options was extensive and required a high degree of auditor judgment.

How the Critical Audit Matter was Addressed in the Audit:

We obtained an understanding over the Company's process to estimate the fair value of stock options, including how the Company develops each of the estimates required to utilize the Black-Scholes option-pricing model. We applied the following audit procedures related to testing the Company's estimates utilized in the Black-Scholes option-pricing model:

- We performed a look-back at the Company's previously issued dividends, noting there were none. We inquired with management of the Company who informed us that no future dividends were currently anticipated.
- We compared the Company's risk-free interest rate used to the comparable United States treasury yield for a term comparable to the stock options' expected term.
- We recalculated the Company's historical share price volatility for a term comparable to the stock options' expected term.
- We recalculated the expected term of stock options granted to employees and non-employee directors using the simplified method, whereby, the expected term equals the average of the vesting term and the original contractual term of the option.

/s/ Haskell & White LLP HASKELL & WHITE LLP

We have served as the Company's auditor since 2017.

Irvine, California February 28, 2022

Fennec Pharmaceuticals Inc. Consolidated Balance Sheets (U.S. dollars and shares in thousands)

	December 31, 2021		De	cember 31, 2020
Assets				
Current assets				
Cash and cash equivalents	\$	21,100	\$	30,344
Prepaid expenses		1,034		797
Other current assets		253		276
Total current assets		22,387		31,417
Non-current assets				
Deferred issuance cost, net amortization		27		
Total non-current assets		27		_
Total assets	\$	22,414	\$	31,417
Liabilities and Shareholders' Equity				
Current liabilities:				
Accounts payable	\$	777	\$	1,571
Accrued liabilities		877	•	776
Total current liabilities		1,654		2,347
Long term liabilities				
Term loan		5,000		—
Debt discount		(12)		
Total long term liabilities		4,988		_
Total liabilities		6,642		2,347
Commitments and Contingencies (Note 7)				
Shareholders' equity:				
Common stock, no par value; unlimited shares authorized; 26,014 shares issued and outstanding (2020 - 26,003)		140,801		140,733
Additional paid-in capital		53,214		49,234
Accumulated deficit		(179,486)		49,254 (162,140)
Accumulated deficit		(1/9,466) 1,243		(162,140) 1,243
Total shareholders' equity		15,772	_	29,070
Total liabilities and shareholders' equity	\$	22,414	\$	
rotal nationales and shareholders equity	Ф	22,414	φ	31,417

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

Fennec Pharmaceuticals Inc. Consolidated Statements of Operations (U.S. dollars and shares in thousands, except per share information)

		Year Ended		
	De	December 31, 2021		cember 31, 2020
Revenue	\$	_	\$	170
Operating expenses:				
Research and development		4,981		5,105
General and administrative		12,242		12,950
Total operating expenses		17,223		18,055
Loss from operations		(17,223)		(17,885)
			_	
Other (expense)/income				
Unrealized foreign exchange loss		(10)		_
Amortization expense		(16)		(402)
Unrealized (loss)/gain on securities		(25)		100
Interest income		54		87
Interest expense		(126)		(9)
Total other (expense)/income		(123)		(224)
Net loss	\$	(17,346)	\$	(18,109)
Basic net loss per common share	\$	(0.67)	\$	(0.76)
Diluted net loss per common share	\$	(0.67)	\$	(0.76)
Weighted-average number of common shares outstanding basic		26,006		23,704
Weighted-average number of common shares outstanding diluted		26,006		23,704

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

Fennec Pharmaceuticals Inc. Consolidated Statements of Cash Flows (U.S. dollars in thousands)

	Year End			
	December 31, 2021		De	cember 31, 2020
Cash flows (used in) provided by:				
Operating activities:	¢		¢	(10, 100)
Net loss	\$	(17,346)	\$	(18,109)
Adjustments to reconcile net loss to net cash used in operating activities:		1.4		100
Amortization of debt access fees		14		402
Amortization of debt discount		2		(100)
Unrealized loss on securities		25		(100)
Stock-based compensation - consultants		266		84
Stock-based compensation - employees		3,749		2,791
Changes in operating assets and liabilities:				(4.60)
Prepaid expenses		(237)		(163)
Other assets		(2)		(168)
Accounts payable		(794)		(41)
Accrued liabilities		101		(291)
Net cash used in operating activities		(14,222)		(15,595)
Financing activities:				
Issuance of shares, options exercise		33		462
Issuance of shares, net of issuance costs				31,967
Proceeds from long-term debt		5,000		—
Debt discount		(14)		—
Capitalized deferred issuance costs		(41)		(140)
Net cash provided by financing activities		4,978		32,289
(Decrease)/increase in cash and cash equivalents		(9,244)		16,694
Cash and cash equivalents - Beginning of period		30,344		13,650
Cash and cash equivalents - End of period	\$	21,100	\$	30,344
Non-cash investing and financing activities:	¢	100	¢	100
Financed insurance policy	\$	466	\$	408

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

Fennec Pharmaceuticals Inc. Consolidated Statements of Shareholders' Equity (U.S. dollars and shares in thousands)

	<u>Common</u> Number (Note 6)	Stock Amount	Additional Paid-in Capital	Accumulated Deficit	O Comp	mulated ther rehensive come	Ste	Total ockholders' Equity
Balance at December 31, 2019	19,896	\$ 106,392	\$ 48,271	\$ (144,031)	\$	1,243	\$	11,875
Stock options issued to consultants			84					84
Stock options issued to employees			2,791	_		—		2,791
Issuance of securities	5,460	31,967	_	_				31,967
Exercise of stock options	647	2,374	(1,912)	_		—		462
Net loss			_	(18,109)				(18,109)
Balance at December 31, 2020	26,003	\$ 140,733	\$ 49,234	\$ (162,140)	\$	1,243	\$	29,070
Stock options issued to consultants			266	_				266
Stock options issued to employees			3,749	_		—		3,749
Exercise of stock options	11	68	(35)					33
Net loss			—	(17,346)		—		(17,346)
Balance at December 31, 2021	26,014	\$ 140,801	\$ 53,214	\$ (179,486)	\$	1,243	\$	15,772

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

1. Nature of Business and Liquidity

Fennec Pharmaceuticals Inc. ("Fennec," "the Company," "we," "us," or "our") was originally formed as a British Columbia corporation under the name Adherex Technologies Inc. and subsequently changed its name on September 3, 2014. Fennec, together with its wholly owned subsidiaries Oxiquant, Inc. ("Oxiquant") and Fennec Pharmaceuticals, Inc., both Delaware corporations, and Cadherin Biomedical Inc. ("CBI"), a Canadian corporation and Fennec Pharmaceuticals (EU) Limited ("Fennec Limited"), collectively referred to herein as the "Company," is a biopharmaceutical company with a product candidate under development for use in the treatment of cancer. With the exception of Fennec Pharmaceuticals, Inc., all subsidiaries are inactive.

These consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States of America ("US GAAP") that are applicable to a going concern which contemplates that the Company will continue in operation for the foreseeable future and will be able to realize its assets and discharge its liabilities in the normal course of business.

During the year ended December 31, 2021, the Company incurred a loss from operations of \$17,223 and still has not earned any significant revenue in its history from the commercial sale of its product candidate. At December 31, 2021, it had an accumulated deficit of \$179,486 and had experienced negative cash flows from operating activities in the amount of \$14,222 for the year ended December 31, 2021.

On May 5, 2020, the Company announced the completion of an underwritten public offering of 4,800,000 common shares at a public offering price of \$6.25 per share. In addition, Fennec issued an additional 660,204 common shares in connection with the partial exercise of the underwriters' over-allotment option. The approximate total gross proceeds from the offering was \$34,100 (\$32,189 net of commissions, fees and issue costs).

On February 1, 2019, Fennec entered into a Loan and Security Agreement with Bridge Bank, a division of Western Alliance Bank, an Arizona corporation, pursuant to which the Bank agreed to loan \$12.5 million to the Company, to be made available upon New Drug Application ("NDA") approval of PEDMARKTM by no later than September 30, 2020. Interest under the Term Loans shall bear interest, on the outstanding daily balance thereof, at a floating per annum rate equal to the Effective Interest Rate (as defined in the Loan and Security Agreement) which is equal to the sum of the Prime Rate published in the Wall Street Journal (currently 3.25%) plus one percent (1.00%). The debt facility was to have interest-only monthly payments due for the first eighteen months from the funding date and then monthly principal and interest payments are due through the remainder of the term which had a maturity date of October 1, 2023. In connection with the facility, Fennec granted Bridge Bank a warrant to purchase up to 39,130 common shares at an exercise price of \$6.80 per common share, for a term of ten years from the date of issuance, subject to early termination under certain conditions.

On June 25, 2020, Fennec entered into an amendment to the Loan and Security Agreement with Bridge Bank. This amendment provided Fennec with an \$18.0 million debt facility comprised of two term loans. Term Loan A consisted of \$12.5 million to be funded upon NDA approval of PEDMARKTM by no later than December 31, 2020 and Term Loan B consists of \$5.5 million to be funded upon the occurrence of a revenue event in 2021. The interest-only period for the facility had the ability to be extended from 18 months to 24 months from the funding of Term Loan A, provided that Term Loan B is funded, and certain conditions are met. The fee in connection with Loan B, would either be 2.13% of the Loan B amount in cash, or the Company could issue a warrant with a value equal to 3.25% of the Loan B amount. On August 6, 2020, the Company paid cash for the extended facility. These statements reflect that fee being settled with cash instead of a warrant. Under Accounting Standards Codification ("ASC") 470-50, Modifications and Extinguishments, the amendment was considered a modification. As such, the Company had been amortizing the loan fee and the value of the warrant over the remainder of the loan term. Following the receipt of the U.S. Food and Drug Administration's ("FDA") Complete Response Letter ("CRL"), management decided to fully amortize the remaining portions of the loan fee and the value of the warrants.

On June 24, 2021, the Company entered into a second amendment to the Bridge Bank Loan and Security Agreement. This amendment provides Fennec with a \$20,000 debt facility comprised of three term loans. Term Loan A consists of \$5,000, which was funded upon closing. Term Loan B consists of \$7,500 that would be funded upon NDA approval of PEDMARKTM not later than January 31, 2022. Term Loan C consists of \$7,500 to be funded upon the occurrence the Company achieving consolidated trailing six-month revenues of \$11,000 on or before December 31, 2022. The interest-only period for the facility has the ability to be extended from 18 months to 24 months from the funding of Term Loan B, provided that Term Loan C is funded, and certain other conditions are met.

On January 27, 2022, the Company entered into a third amendment to the Bridge Bank Loan and Security Agreement extending the outside date to receive NDA approval of PEDMARKTM to September 30, 2022. Among other customary events of default, failure to obtain NDA approval by September 30, 2022 constitutes an event of default under the Bridge Bank Loan and Security Agreement, upon which Bridge Bank may declare the entire balance of the facility immediately due and payable. Although Bridge Bank has previously extended the deadline to receive NDA approval, there is no assurance that it will do so again if the NDA is not approved by the current September 30, 2022 deadline. The proceeds from the loan will to be used for working capital purposes and to fund general business requirements in accordance with the terms of the Loan and Security Agreement.

On August 10, 2020, the Company received a CRL from the FDA regarding its NDA for PEDMARKTM. According to the CRL, after recent completion of a pre-approval inspection of the manufacturing facility of our drug product manufacturer, the FDA again identified deficiencies that are required to be resolved prior to the approval of PEDMARKTM. Importantly, no clinical safety or efficacy issues were identified during the review and there is no requirement for further clinical data.

On November 29, 2021, the Company received a second CRL from the FDA regarding its NDA for PEDMARKTM. In the CRL, the FDA identifies deficiencies required to be resolved by the manufacturer prior to approval of the NDA. The Company plans to resubmit the NDA in the first quarter of 2022.

The Company believes the funds raised in its May 2020 public offering, along with the funds from the Bridge Bank Loan and Security Agreement, provide sufficient funding for the Company to carry out its planned activities, including, if PEDMARKTM is approved by the FDA, the commencement of commercialization efforts, for at least the next twelve months as it continues its strategic development of PEDMARKTM.

These financial statements do not reflect the potentially material adjustments in the carrying values of assets and liabilities, the reported expenses, and the balance sheet classifications used, that would be necessary if the going concern assumption were not appropriate.

2. Significant Accounting Policies

Basis of presentation

The consolidated financial statements include the accounts of Fennec and of all its wholly-owned subsidiaries. All intercompany transactions and balances have been eliminated upon consolidation.

Use of estimates

The preparation of financial statements in conformity with US GAAP requires management to make estimates and assumptions that impact the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the consolidated financial statements and the reported amounts of revenue and expense during the reporting period. Significant estimates include the valuation of stock-based compensation. Actual results could differ from those estimates.

Cash and Cash Equivalents

Cash equivalents consist of highly liquid investments with original maturities at the date of purchase of three months or less.

The Company places its cash and cash equivalents in investments held by highly rated financial institutions in accordance with its investment policy designed to protect the principal investment. At December 31, 2021, the Company had \$21.1 million in cash and money market accounts (2020- \$30.3 million). Money market investments typically have minimal risks. While the Company has not experienced any loss or write-down of its money market investments, the amounts it holds in money market accounts are substantially above the \$250,000 amount insured by the FDIC and may lose value.

Financial instruments

Financial instruments recognized on the balance sheets at December 31, 2021 and December 31, 2020 consist of cash and cash equivalents, accounts payable, accrued liabilities and long term debt, the carrying values of which, approximate fair value due to their relatively short time to maturity. The Company does not hold or issue financial instruments for trading.

The Company's investment policy is to manage investments to achieve, in the order of importance, the financial objectives of preservation of principal, liquidity and return on investment. Investments, when made, are made in U.S. or Canadian bank securities, commercial paper of U.S. or Canadian industrial companies, utilities, financial institutions and consumer loan companies, and securities of foreign banks provided the obligations are guaranteed or carry ratings appropriate to the policy. Securities must have a minimum Dun & Bradstreet rating of A for bonds or R1 low for commercial paper.

The policy risks are primarily the opportunity cost of the conservative nature of the allowable investments. As the main purpose of the Company is research and development, the Company has chosen to avoid investments of a trading or speculative nature.

Common shares and warrants

The Company has 0.04 million warrants with a weighted average strike price of \$6.80 outstanding to purchase common shares that were denominated in United States dollars ("USD").

Revenue

The Company's revenue is generated through sales of intellectual property ("IP"). For periods when the Company has generated revenue, the revenue recognized under each of the Company's arrangements during those periods is described below. The terms of these agreements may contain multiple promised goods or services or optional goods and services, including licenses to product candidates, referred to as exclusive licenses, as well as research and development activities to be performed by the Company on behalf of the collaboration partner related to the licensed product candidates.

Revenue recognition

Revenue is recognized when control of the promised goods or services are transferred to customers in an amount that reflects the consideration the Company expects to be entitled to in exchange for transferring those goods or providing services. The Company accounts for a contract when it has approval and commitment from both parties, the rights of the parties are identified, payment terms are identified, the contract has commercial substance and collectability of consideration is probable.

When determining whether the customer has obtained control of the goods or services, the Company considers the point at which the customer may benefit from the goods or services. For sale of IP, revenue is recognized upon grant or transfer of the IP, as the Company's IP is considered functional in nature.

Performance obligations

A performance obligation is a promise in a contract to transfer a distinct good or service to the customer and is the unit of account in ASC 606. A contract's transaction price is allocated to each distinct performance obligation and recognized

as revenue when, or as, the performance obligation is satisfied. The Company's contracts may contain multiple performance obligations if a promise to transfer goods or services is separately identifiable from other promises in a contract and, therefore, is considered distinct. For contracts with multiple performance obligations, the Company determines the standalone selling price of each performance obligation and allocates the total transaction price using the relative selling price basis. The Company recognizes performance obligations based on their nature.

Significant payment terms

The Company's revenue arrangements include payments to the Company of one or more of the following: a nonrefundable, upfront payment; milestone payments and royalties on commercial sales of IP product candidates, if any. To date, the Company has received upfront payments and several milestone payments but has not received any license or option fees or earned royalty revenue as a result of product sales.

Under ASC 606, the Company estimates the amount of consideration to which it will be entitled in exchange for satisfying performance obligations. Based on the Company's current contracts, variable consideration primarily exists in the following forms: development and regulatory milestones, royalties and sales-based milestones. The Company utilizes the "most likely amount" variable consideration method for estimating development and regulatory milestone consideration to include in the transaction price. The Company only includes an amount of variable consideration in the transaction price to the extent it is probable that a significant reversal in the cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. The Company refers to this as the variable consideration constraint.

Due to the uncertainty associated with the occurrence of the underlying events which would trigger development and regulatory milestone consideration under its revenue arrangements, with the exception of certain initial conditions precedent milestones, the Company has concluded the variable consideration associated with all development and regulatory milestones to be fully constrained as of the ASC 606 transition date and as of December 31, 2021, and therefore has not included such consideration in the transaction price for any of its revenue arrangements. The Company will reassess this conclusion at each subsequent reporting period and will only include amounts associated with regulatory or development milestones in the transaction price when, or if, the variable consideration is determined to be released from the constraint.

In accordance with ASC 606, the Company is required to adjust the transaction price for the effects of the time value of money if the timing of payments agreed to by the parties to the contract, explicitly or implicitly, provides the Company or its customer with a significant benefit of financing the transfer of goods or services. The Company concluded that its licensing and collaboration arrangements do not contain a significant financing component because the payment structure of its agreements arise from reasons other than providing a significant benefit of financing.

Contract assets

The Company did not have a contract asset as of December 31, 2021 or 2020.

Contract liabilities

The Company did not have a contract liability as of December 31, 2021 or 2020.

Revenue arrangements

Elion

In May 2016, Fennec sold its rights to the drug Eniluracil to Elion Oncology, LLC ("Elion"). The agreement called for \$40,000 in cash and 5% royalties to be paid to Fennec for any income derived from the sale of Eniluracil. The agreement was for the sale, not license of Fennec's rights in Eniluracil. In addition, the agreement did not call for any additional good or service beyond the transfer of Fennec's rights in Eniluracil and related assets (e.g. "all information and know-how", documentation, etc.).

In August 2020, Elion entered into a license agreement with Processa Pharmaceuticals, Inc. ("Processa") for Eniluracil. The license agreement called for equity and cash upon satisfying the "Condition Precedent", along with development and regulatory milestone payments, Sales Milestone Payments, and Product Royalties. The grant of the license was conditioned upon the "Condition Precedent" which was defined as (i) Processa's closing of a public offering by October 30, 2020 in which Processa raised at least \$15 million and (ii) Processa's shares being listed on NASDAQ. Upon satisfying the "Condition Precedent" Elion was entitled to receive \$100,000 in cash and 825,000 in shares of Processa of which the Company is entitled to 5%. In January 2021, the Company received \$5,000 in cash and 41,250 restricted shares of Processa common shares.

The agreement between Elion and Processa entitles Elion to the payments outlined in the table below. Fennec would be eligible to receive 5% of the following based on future milestone events:

Milestone Event		Milestone Payment (\$)			
1st Year Anniversary of Effective Date	100 Restricted S				
2nd Year Anniversary of Effective Date	100 Restricted Sha				
1st Patient in Dose Confirmation Study	100 Restricted Sha				
NDA Submission		300 Restricted Shares			
1st FDA Approval in US	\$	5,000			
2nd FDA Approval in US	\$	3,000			
1st Regulatory Approval Outside US	\$	2,000			
2nd Regulatory Approval Outside US	\$	2,000			

The Company notes that the above payments are conditioned upon the "Condition Precedent" and thus even the restricted shares that are due only upon the passage of time are in fact variable. However, once the "Condition Precedent" occurred only the passage of time must occur in order for the 1st and 2nd Year Anniversary payments to become due and as such the Company must conclude as of the date the "Condition Precedent" is satisfied that the 1st and 2nd Year Anniversary milestone payments are also probable of coming to fruition and thus should be included in the transaction price during the 4th quarter of 2020 along with the aforementioned "Condition Precedent" payments.

The arrangement with Elion contains consideration that is variable based on the customer's achievement of certain development and regulatory milestones. The next milestone payment the Company may be entitled to receive is 5,000 restricted shares for 1st patient in Dose Confirmation Study and then another 15,000 restricted shares for the NDA submission. These are considered variable consideration that is fully constrained due to the uncertainty associated with the achievement of the development milestone. The considerations related to royalties (first and second FDA approval in US and first and second regulatory approval outside of US) are also variable consideration that are fully constrained in accordance with the royalty recognition constraint.

The Company recognized \$0.2 million in revenue associated with the aforementioned cash and shares it became entitled to for the year ended December 31, 2020. Due to the one year lockup provision on the Processa shares, the Company deemed it reasonable to apply a liquidity discount of 20% to the valuation of the shares associated with the achievement of the October 30, 2020 milestone. Shares associated with the one- and two-year anniversary milestones had a 30 and 40% liquidity discount applied to their fair market valuations. Recognizing the passage of time, the Company adjusted its liquidity discount to the original shares of 0% and then 20% and 25% for the one- and two-year anniversary tranches.

Subsequent changes to the fair value of the underlying securities are recognized as unrealized gains or losses on marketable equity securities within the consolidated statement of operations. During the year ended December 31, 2021, the Company reported \$25 in unrealized loss on the fair value of the underlying Processa shares. There is a total unrealized gain on the Processa shares of \$75 since inception.

Research and development costs and investment tax credits

Research costs, including employee compensation, laboratory fees, lab supplies, and research and testing performed under contract by third parties, are expensed as incurred. Development costs, including drug substance costs, clinical study expenses and regulatory expenses are expensed as incurred.

Investment tax credits, which are earned as a result of qualifying research and development expenditures, are recognized when the expenditures are made, and their realization is reasonably assured. They are applied to reduce related capital costs and research and development expenses in the year recognized.

Income taxes

The Company accounts for income taxes using the asset and liability method to compute the differences between the tax basis of assets and liabilities and the related financial amounts, using currently enacted tax rates. The Company has deferred tax assets, which are subject to periodic recoverability assessments. Valuation allowances are established, when necessary, to reduce deferred tax assets to the amount that more likely than not will be realized. As of December 31, 2021, we maintained a full valuation allowance against our deferred tax assets.

The provisions of the Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 740-10, Uncertainty in Income Taxes, address the determination of whether tax benefits claimed or expected to be claimed on a tax return should be recorded in the financial statements. Under ASC 740-10, we may recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by taxing authorities, based on the technical merits of the position.

Foreign currency translation

The U.S. dollar is the functional currency for the Company's consolidated operations. All gains and losses from currency translations are included in results of operations.

Loss per share

Basic net loss per share is computed by dividing net loss by the weighted average number of common shares outstanding during the year. Diluted net earnings per share is computed using the same method, except the weighted average number of common shares outstanding includes convertible debentures, stock options and warrants, if dilutive, as determined using the if-converted method and treasury methods. Accordingly, warrants to purchase 0.04 million of our common shares and options to purchase 4.3 million of our common shares at December 31, 2021, were not included in earnings per share. Such options would have an antidilutive effect. In 2020, warrants to purchase 0.04 million of our common shares are options to purchase 3.0 million common shares were excluded from the computation of earnings per share as their inclusion would have been antidilutive.

Recent accounting pronouncements

In January 2021, the FASB issued ASU No. 2021-01, Reference Rate Reform (Topic 848). In this ASU, the FASB refines the scope of Topic 848 to clarify that certain optional expedients and exceptions therein for contract modifications and hedge accounting apply to contracts that are affected by the discounting transition. Specifically, modifications related to reference rate reform would not be considered an event that requires reassessment of previous accounting conclusions. The ASU also amends the expedients and exceptions in Topic 848 to capture the incremental consequences of the scope clarification and to tailor the existing guidance to derivative instruments affected by the discounting transition. The amendments in the ASU are effective immediately for all entities. Entities may choose to apply the amendments retrospectively as of any date from the beginning of an interim period that includes or is subsequent to January 7, 2021, up to the date that financial statements are available to be issued. The Company chose to apply amendments prospectively and concluded after evaluation that ASU 2021-01 has no significant effect on our consolidated financial statements.

3. Loss per Share

Loss per common share is presented under two formats: basic loss per common share and diluted loss per common share. Basic loss per common share is computed by dividing net loss attributable to common shareholders by the weighted average number of common shares outstanding during the period. Diluted loss per common share is computed by dividing net loss by the weighted average number of common shares outstanding during the period, plus the

potentially dilutive impact of common shares equivalents (e.g. stock options and warrants). Dilutive common share equivalents consist of the incremental common shares issuable upon exercise of stock options and warrants. The following table sets forth the computation of basic and diluted net loss per share (in thousands except per share data):

	Dece	Year Ended December 31, 2021 December 31,			
Numerator:					
Net loss	\$	(17,346)	\$	(18,109)	
Denominator:					
Weighted-average common shares, basic		26,006		23,704	
Dilutive effect of stock options		—		—	
Dilutive effect of warrants		—		—	
Incremental dilutive shares		—		—	
Weighted-average common shares, diluted		26,006		23,704	
Net loss per share, basic and diluted	\$	(0.67)	\$	(0.76)	

The following outstanding options and warrants were excluded from the computation of basic and diluted net loss per share for the periods presented because including them would have had an anti-dilutive effect (in thousands):

	Year Ended			
	December 31, 2021	December 31, 2020		
Options to purchase common shares	4,259	2,952		
Warrants to purchase common shares	39	39		

4. Stock options

The Compensation Committee of the Board of Directors administers the Company's stock option plan. The Compensation Committee designates eligible participants to be included under the plan and approves the number of options to be granted from time to time under the plan. On June 24, 2010, at the Company's annual meeting, shareholders approved an amendment to the Company's Stock Option Plan (the "Plan Maximum Amendment"). The Plan Maximum Amendment relates to changing the maximum number of common shares issuable under the stock option plan from a fixed number of 6.7 million to the number of shares that represents twenty-five percent (25%) of the total number of all issued and outstanding common shares. Based upon the current shares outstanding, a maximum of 6.5 million of our common shares are authorized for issuance under the plan. The option exercise price for all options issued under the plan is based on the fair value of the underlying shares on the date of grant. All options vest within three years or less and are exercisable for a period of ten years from the date of grant. The stock option plan, as amended, allows the issuance of Canadian and U.S. dollar grants. A summary of the stock option transactions, for both the Canadian and U.S. dollar grants, for the years ended December 31, 2021 and 2020 is below.

Summary of \$CAD Option Activity

Share Prices Reported in \$CAD	Number of Options (in thousands)	 Range	 Weighted Average
Outstanding and exercisable at December 31, 2019	648	\$ 2.43	\$ 2.43
Exercised	(648)	2.43	2.43
Outstanding and exercisable at December 31, 2020	_	\$ —	\$
Outstanding and exercisable at December 31, 2021	—	\$ —	\$ _

Summary of \$USD Option Activity

	Number of Options		W	eighted
	(in thousands)	Range	P	lverage
Outstanding and exercisable at December 31, 2019	2,440	\$ 0.45 – 12.59	\$	3.80
Granted	705	5.91 - 8.09		6.84
Exercised	(193)	1.05 - 5.10		2.39
Outstanding and exercisable at December 31, 2020	2,952	\$ 0.45 - 12.59	\$	4.82
Granted	1,412	4.08 - 7.53		5.93
Exercised	(11)	1.05 - 5.10		3.15
Forfeited	(94)	7.40 - 8.09		7.79
Outstanding and exercisable at December 31, 2021	4,259	\$ 0.45 - 12.59	\$	5.13

Summary of \$USD Option Remaining Life

Number Outstanding and Exercisable at December 31, 2021	Weighted Average Strike Price December 31, 2021	Weighted Average Remaining Life
(in thousands)	US Dollars	(years)
4,259	5.13	7.00

Stock compensation expense for the fiscal years ended December 31, 2021 and 2020 was \$4.0 million and \$2.9 million, respectively. These amounts have been included in the general and administrative expenses for the respective periods. The weighted average fair value per share of options granted and or vested during the fiscal years ended December 31, 2021 and 2020 was \$5.93 and \$6.84, respectively. The intrinsic value (being the difference between the share price at December 31, 2021 and exercise price) of stock options exercisable at December 31, 2021 was \$0.30 million. The intrinsic value of options exercised during the fiscal year ended December 31, 2021 was \$0.30 million. Of the 658 options issued in December 2021, 140 have standard vesting. There were 68 options awarded to various contractors. These 68 options are performance-based and will vest, only upon FDA approval of our NDA. That FDA approval must occur in calendar year 2022 and the executives must still be employed by the Company. Currently, the Company has not recognized any expense associated with these performance-based awards. We will evaluate the probability of NDA approval at each balance sheet date and revise our expense extimate accordingly.

The fair value of all options vested during the fiscal year ended December 31, 2021 was \$0.5 million. The fair values of options granted in fiscal years ended December 31, 2021 and 2020 were estimated on the date the options were granted based on the Black-Scholes option-pricing model, using the following weighted average assumptions for all options with a ten-year expiration:

	Year Ended December 31, 2021	Year Ended December 31, 2020
Expected dividend	0 %	0 %
Risk-free interest rate	1.41 - 1.62 %	0.63 - 1.90 %
Expected volatility	122 %	136 - 148 %
Expected life	10.0 years	10.0 years

The Company uses the historical volatility and adjusts for available relevant market information pertaining to the Company's share price.

Restricted Share Units Activity

The Plan allows for the issuance of restricted share units ("RSUs"). The following is a summary of RSU activity for the periods ended December 31, 2021 and 2020. All granted RSUs are denominated in U.S. dollars. Prior to June 2021, there

was no activity involving RSUs. Of the 219 RSUs granted and outstanding, 0 are vested. The Company recognized \$0.1 million in RSU expense for the year ended December 31, 2021. Standard vesting of RSUs is over three years with 1/3 vesting on the first anniversary date of the grant and then 1/24 on the last day of each subsequent month. The Compensation Committee may also award RSUs with alternative vesting. Of the 219 RSUs issued in 2021, 110 have standard vesting. There were 34 RSUs awarded to various contractors. These 34 RSUs will fully vest on the first anniversary date of the award. There were 75 RSUs awarded to our CFO and CCO. These RSUs are performance-based and will vest, only upon FDA approval of our NDA. That FDA approval must occur in calendar year 2022 and the executives must still be employed by the Company. Currently, the Company has not recognized any expense associated with these performance-based awards. We will evaluate the probability of NDA approval at each balance sheet date and revise our expense extimate accordingly.

US Denominated RSU's	Number of Restricted Share Units (thousands)
Outstanding at December 31, 2019	-
Granted	_
Outstanding at December 31, 2020	
Granted	219
Outstanding at December 31, 2021	219

5. Fair Value Measurements

The Company has adopted ASC 820 Fair Value Measurements and Disclosure Topic of the FASB. This Topic applies to certain assets and liabilities that are being measured and reported on a fair value basis. The Fair Value Measurements Topic defines fair value, establishes a framework for measuring fair value in accordance with US GAAP, and expands disclosure about fair value measurements. This Topic enables the reader of the financial statements to assess the inputs used to develop those measurements by establishing a hierarchy for ranking the quality and reliability of the information used to determine fair values. The Topic requires that financial assets and liabilities carried at fair value be classified and disclosed in one of the following three categories:

Level 1: Quoted market prices in active markets for identical assets or liabilities.

Level 2: Observable market-based inputs or unobservable inputs that are corroborated by market data.

Level 3: Unobservable inputs that are not corroborated by market data.

Assets/Liabilities Measured at Fair Value on a Recurring Basis

	Fair Value M	Fair Value Measurement at December 31, 2021 and December 31, 2020 (in thousands)						
	Market for I Instrum	Quoted Price in Active Significant Other Significant Market for Identical Significant Other Significant Instruments Observable Inputs Unobservable Inputs Level 1 Level 2 Level 3 2021 2020 2021 2020				ble Inputs	<u> </u>	tal
Assets								
Cash and cash equivalents	82 (1)	678 (1)	21,018	29,666	_	_	21,100	30,344
Processa common shares	_	_	240 (2)	136 (2)	, —	—	240	136

The Company held approximately, \$82,000 in cash as of December 31, 2021, of which approximately \$34,000 was in Canadian funds (translated into U.S. dollars). As of December 31, 2020, the Company held approximately \$678,000, of which approximately \$45,000 was in Canadian funds (translated into U.S. dollars).

(2) The Company received 41,250 restricted common shares of Processa (PSCA). The share restriction will expire in three tranches: 50%, 25% and 25% at the 6, 9 and 12 month intervals, respectively from October 30, 2020. F-16

At October 30, 2020 PSCA shares were trading at \$4.11 per share. The Company applied a 20% liquidity discount to the shares and will mark to market at each balance sheet date.

6. Stockholders' Equity

Authorized capital stock

The Company's authorized capital stock consists of an unlimited number of shares of no-par common shares.

Warrants to Purchase Common Shares

At December 31, 2021, the Company had 39,130 warrants outstanding to purchase common shares at an exercise price of \$6.80.

The following table summarized our warrant activity for the fiscal years ended December 31, 2021 and 2020.

	Number of Warrants (in thousands) Range			Weighted Average	
Outstanding and exercisable at December 31, 2019	\$	39	\$	6.80	\$ 6.80
Granted		—		—	—
Outstanding and exercisable at December 31, 2020	\$	39	\$	6.80	\$ 6.80
Granted		—			
Outstanding and exercisable at December 31, 2021	\$	39	\$	6.80	\$ 6.80

7. Commitments and Contingencies

Oregon Health & Science University Agreement

On February 20, 2013, Fennec entered into a new exclusive license agreement with OHSU for exclusive worldwide license rights to intellectual property directed to thiol-based compounds, including PEDMARKTM and their use in oncology (the "OHSU Agreement"). OHSU will receive certain milestone payments, royalty on net sales for licensed products and a royalty on any consideration received from sublicensing of the licensed technology.

On May 18, 2015, Fennec negotiated an amendment ("Amendment 1") to the OHSU Agreement, which expands Fennec's exclusive license to include the use of N-acetylcysteine as a standalone therapy and/or in combination with PEDMARKTM for the prevention of ototoxicity induced by chemotherapeutic agents to treat cancers. Further, Amendment 1 adjusts select milestone payments entered in the OHSU Agreement including but not limited to the royalty rate on net sales for licensed products, royalty rate from sublicensing of the licensed technology and the fee payable upon the regulatory approval of a licensed product.

The term of the OHSU Agreement as amended by Amendment 1 expires on the date of the last to expire claim(s) covered in the patents licensed to Fennec or 8 years, whichever is later. In the event a licensed product obtains regulatory approval and is covered by the Orphan Drug Designation, the parties will in good faith amend the term of the agreement. Sodium thiosulfate is currently protected by methods of use patents that the Company exclusively licensed from OHSU that expired in Europe in 2021 and that expire in the United States in 2038. The OHSU Agreement is terminable by either Fennec or OHSU in the event of a material breach of the agreement by either party after 45 days prior written notice. Fennec also has the right to terminate the OHSU Agreement at any time upon 60 days prior written notice and payment of all fees due to OHSU under the OHSU Agreement.

Securities Class Action Suit

Chapman et al.

On September 2, 2020, a putative class action lawsuit, Chapman v. Fennec Pharmaceuticals Inc., was filed against us, our Chief Executive Officer, Rostislav Raykov, and our Chief Financial Officer, Robert Andrade, in the United States District Court for the Middle District of North Carolina. The complaint alleged that prior to our August 10, 2020 receipt of a CRL from the FDA concerning our NDA for PEDMARKTM, we made materially false or misleading statements and failed to disclose material facts about the status of our PEDMARKTM manufacturing facility, the facility's compliance with cGMP, and the impact its status and compliance would have on regulatory approval for PEDMARKTM. On December 3, 2020, the court appointed a lead plaintiff to represent the putative class. On February 1, 2021, the lead plaintiff filed an amended complaint. The amended complaint added members of our Board of Directors as defendants, asserts a putative class period from December 10, 2018 through August 10, 2020, makes allegations similar to those in the original complaint, and claims the defendants violated Section 10(b) of the Exchange Act. On March 3, 2021, we and the other defendants filed a motion to dismiss the amended complaint. On April 2, 2021, plaintiffs filed an opposition to the motion. On April 16, 2021, we and the other defendants filed a reply brief in support of the motion. On December 16, 2021, the Magistrate Judge on the motion entered an order recommending that our motion to dismiss be compliant. Plaintiffs filed objections to the Magistrate Judge's recommendation on January 24, 2022, and Defendants filed their response on February 3, 2022. The parties are currently awaiting a decision from the U.S. District Court Judge as to whether it will accept the Magistrate Judge's recommendation.

We believe that the suit is without merit and intend to defend it vigorously. We cannot predict the outcome of this suit. Failure by us to obtain a favorable resolution of the suit could have a material adverse effect on our business, results of operations and financial condition. We have not recorded a liability as of December 31, 2021, because we believe a potential loss is not probable or reasonably estimable given the preliminary nature of the proceedings.

Jeffrey D. Fisher

On February 9, 2022, plaintiff Jeffrey D. Fisher filed a putative federal securities class action against the Company and its CEO and CFO in the United States District Court for the Middle District of North Carolina, captioned *Fisher v. Fennec Pharmaceuticals et al.*, Case No. 1:22-cv-115 (M.D.N.C.). The complaint alleges that the defendants violated Sections 10(b) and 20(a) of the Exchange Act by making materially false and misleading statements or omissions regarding the status of its PEDMARKTM manufacturing facility, the facility's compliance with cGMP, and the impact its status and compliance would have on regulatory approval for PEDMARKTM in the period leading up to the Company's November 29, 2021 receipt of a Complete Response Letter for a subsequent NDA for PEDMARKTM. The complaint seeks an unspecified amount of compensatory damages and other relief on behalf of persons who purchased the Company's common stock from May 28, 2021 and November 26, 2021.

We believe that the suit is without merit and intend to defend it vigorously. We cannot predict the outcome of this suit. Failure by us to obtain a favorable resolution of the suit could have a material adverse effect on our business, results of operations and financial condition.

Hope Medical Enterprises, Inc.

As discussed above under the heading "Business - Overview - Product Candidate,"

On October 29, 2021, Hope Medical Enterprises, Inc. ("Hope") filed two petitions for inter partes review ("IPR") with the Patent Trial and Appeal Board ("PTAB") of the USPTO. In its petitions, Hope seeks to invalidate our U.S. Patent No. 10,596,190 ("US '190"), which is exclusively in-licensed from Oregon Health & Science University ("OHSU") and relates to a method of using our PEDMARK[™] product, and our U.S. Patent No. 10,792,363 ("US '363"), which relates to an anhydrous form of STS, which is the active pharmaceutical ingredient in our PEDMARK[™] product. US '190 was issued on March 24, 2020. US '363 was issued on October 6, 2020. We filed preliminary responses to the petitions in February 2022, and thereafter, the PTAB has three months to decide whether to institute IPR proceedings. If the PTAB institutes one or both reviews, the final written decision(s) will be due about one year after the PTAB's

decision to institute IPR proceedings, and following additional submissions by the parties. Any appeals of a PTAB decision would delay any final outcome. We plan to vigorously defend our intellectual property rights related to PEDMARKTM. However, we are unable to predict the outcome of these petitions, and an invalidation of one or both of these patents may have a material adverse effect on our ability to protect our rights in PEDMARKTM beyond periods of marketing exclusivity for PEDMARKTM possible in the United States under Orphan Drug Designation and in Europe under European Market Exclusivity for Pediatric Use ("PUMA"). We obtained U.S. Orphan Drug Designation for the use of PEDMARKTM in the prevention of platinum-induced otoxicity in pediatric patients in 2004. We plan to pursue PUMA upon approval of the MAA, which would allow for 10 years of market exclusivity upon PUMA approval.

On January 11, 2022, our licensor OHSU filed a Request for Supplemental Examination of US '190 requesting the consideration by the USPTO of certain prior art references, including references cited by Hope in its Petition for IPR that are relevant to the granted claim of the patent. On January 28, 2022, the USPTO found that the cited references constitute a substantial new question of patentability and ordered an ex parte reexamination of the single US '190 claim of pursuant to 35 U.S.C. § 257. We are unable to predict the outcome of the *ex parte* reexamination. If the USPTO does not uphold the '190 claim as granted or in amended form, our ability to protect our PEDMARKTM product beyond periods of marketing exclusivity for PEDMARKTM possible in the United States under Orphan Drug Designation and in Europe under European Market Exclusivity for Pediatric Use ("PUMA") may be adversely affected.

Executive Severance

In the event of his termination with us other than for cause, we will be obligated to pay Mr. Raykov a one-time severance payment equal to twelve months of salary (currently \$458). In the event of his termination with us other than for cause, we will be obligated to pay Mr. Andrade a one-time severance payment equal to six months of salary (currently \$166). In the event of her termination with us other than for cause, we would have been obligated to pay Ms. Goel a one-time severance payment equal to six months of salary (currently \$192). Ms. Goel tendered her resignation in January 2022.

8. Term Loans

On June 24, 2021, the Company announced it had negotiated a second amendment to the Bridge Bank Loan and Security Agreement with Bridge Bank. This amendment provides Fennec with a \$20,000 debt facility comprised of three term loans. Term Loan A consists of \$5,000, which was funded upon closing. Term Loan B consists of \$7,500 to be funded upon NDA approval of PEDMARKTM in the U.S. Term Loan C consists of \$7,500 million to be funded upon the occurrence the Company achieving consolidated trailing six-month revenues of \$11,000 on or before December 31, 2022. The interest-only period for the facility has the ability to be extended from 18 months to 24 months from the funding of Term Loan B, provided that Term Loan C is funded, and certain conditions are met. The Company intends to use the proceeds from the loans to provide working capital for commercial readiness activities prior to NDA approval as well as commercialization activities for PEDMARKTM, if approved by the FDA.

On June 24, 2021, the Company drew \$5,000 from Term Loan A. Term Loan A matures on July 1, 2025. Payments are for interest only through February 1, 2023. The Company shall make equal monthly payments of principal, together with applicable interest, following the interest only period until the maturity date. Interest shall accrue on the outstanding balance at a rate of 1% above prime as published by the Wall Street Journal on the first day of each month. The Company is obligated to maintain a cash balance greater or equal to three times its monthly cash burn as calculated on the last date of the immediately preceding month.

Aggregate annual payments due on Term Loan A as of December 31, 2021 are as follows (in thousands):

Years Ending December 31,	Amount
2021	\$ —
2022	
2023	1,833
2024	2,000
2025	1,167
Total future payments	5,000
Less: unamortized debt discount	(12)
Total term loan, net of debt discount	\$ 4,988

In the event of default or change of control, all unpaid principal and all accrued and unpaid interest amounts (if any) become immediately due and payable including the prepayment fee. Events of default include, but are not limited to, a payment default, a material adverse change, and insolvency. The Bridge Bank facility is secured by all of the Company's assets, including all capital stock held by the Company.

Debt issuance costs amounting to \$55 securing access to Term Loans A, B and C were paid in cash to Bridge Bank on June 24, 2021. This amount was capitalized and is being amortized over the access period of the Term Loans. Upon drawing Term Loan A, the Company recorded a debt discount of \$14, reducing the capitalized amount by the same amount. The debt discount is being amortized over the life of Term Loan A.

9. Subsequent Events

Officer Resignation

On January 31, 2022, our Chief Commercial Officer, Ms. Goel resigned. Her resignation was voluntary and no severance was paid. The Company has added to its commercial team since the resignation of Ms. Goel.

Bridge Bank Loan Facility

On January 27, 2022, the Company entered into a third amendment to the Bridge Bank Loan and Security Agreement extending the outside date to receive NDA approval of PEDMARKTM to September 30, 2022. Please refer to Note 1, for a more complete discussion of this amendment.

Class Action Suit

On February 9, 2022, plaintiff Jeffrey D. Fisher filed a putative federal securities class action against the Company and its CEO and CFO in the United States District Court for the Middle District of North Carolina, captioned *Fisher v. Fennec Pharmaceuticals et al.*, Case No. 1:22-cv-115 (M.D.N.C.).

10. Income Taxes

The Company operates in both U.S. and Canadian tax jurisdictions. Its income is subject to varying rates of tax and losses incurred in one jurisdiction cannot be used to offset income taxes payable in another. A reconciliation of the

combined Canadian federal and provincial income tax rate with the Company's effective tax rate is as follows (in thousands except for percentage rates):

	-	ear Ended cember 31, 2021	 ear Ended cember 31, 2020
Domestic (loss)/gain	\$	(9,122)	\$ (8,784)
Foreign loss		(8,173)	(9,283)
Loss before income taxes		(17,295)	 (18,067)
Expected statutory rate (recovery)		26.50 %	26.50 %
Expected provision for (recovery of) income tax		(4,583)	(4,788)
Permanent differences		993	752
Change in valuation allowance		3,086	3,737
Effect of foreign exchange rate differences			—
Effect of change in future enacted tax rates			—
Tax credits and other adjustments			
Effect of tax rate changes and other		504	299
Provision for income taxes	\$	_	\$ _

The Canadian statutory come tax rate of 26.0 percent is comprised of federal income tax at approximately 15.0 percent and provincial income tax at approximately 11.0 percent.

The primary temporary differences which gave rise to future income taxes (recovery) at December 31, 2021 and December 31, 2020:

	December 31, 2021		De	cember 31, 2020
Future tax assets:				
SR&ED expenditures	\$	2,086	\$	2,086
Income tax loss carryforwards		30,007		26,770
Non-refundable investment tax credits		700		1,083
Share issue costs		77		139
Accrued expenses		—		
Fixed and intangible assets		1,083		1,083
Reserves				
		33,953		31,161
Less: valuation allowance		(33,927)		(31,147)
Net future tax assets	\$	26	\$	14

Tax Cuts and Jobs Act

On December 22, 2017, the then President of the United States signed into law an Act to provide for reconciliation pursuant to titles II and V of the concurrent resolution on the budget for fiscal year 2018 (commonly known as "the Tax Cuts and Jobs Act" ("TCJA"), which introduced a comprehensive set of tax reforms. The Tax Cuts and Jobs Act significantly revises U.S. tax law by, among other provisions, lowering the Company's corporate tax rate from 34% to 21% and eliminating or reducing certain income tax deductions.

In December 2017, in accordance with the SEC Staff Accounting Bulletin ("SAB") 118–Income Tax Accounting Implications of the TCJA, the Company recorded tax effects on a provisional basis based on a reasonable estimate. The TCJA did not have a material impact on the Company's financial statements because its deferred temporary differences are fully offset by a valuation allowance and the Company does not have any offshore earnings from which to record the

mandatory transition tax. During 2018, the Company completed its analysis under SAB 118 and no additional tax effects due to rate-remeasurement were required to be recorded.

On March 27, 2020 the US government enacted the Coronavirus Aid, Relief, and Economic Security Act ("CARES Act") which includes numerous modifications to income tax provisions, including a limitation on business interest expense and net operating loss provisions and the acceleration of alternative minimum tax credits. Given the Company's history of losses, the CARES Act did not have a material impact on its tax provision.

There are no current income taxes owed, nor are any income taxes expected to be owed in the near term. At December 31, 2021 the Company has unclaimed Scientific Research and Experimental Development ("SR&ED") expenditures, income tax loss carry-forwards and non-refundable investment tax credits. The unclaimed amounts and their expiry dates are as listed below:

	F	ederal	Province/ State
SR&ED expenditures (no expiry)	\$	7,872	\$ —
Income tax loss carryforwards (expiry date):			
2021		26	
2022		233	—
2023		1,588	—
2024		4,849	—
2025		6,143	6,169
2026		13,868	2,716
2027		8,136	4,219
2028		10,509	4,164
2029		8,185	2,116
2030		2,608	700
2031		3,378	789
2032		3,491	651
2033		1,789	655
2034		1,812	617
2035		1,804	941
2036		2,208	1,013
2037		4,641	1,638
2038		5,267	
2039		5,848	—
2040		5,792	_
2041		5,602	
No expiration		23,227	23,223
Investment tax credits (expiry date):			
2022		379	
2023		169	
2024		189	
2025		82	
2026		86	
2027		47	

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Forms S-8 (file nos. 333-221091 and 333-232353) and S-3 (file nos. 333-219884 and 333-249775) of Fennec Pharmaceuticals Inc. (the "Company") of our report dated February 28, 2022, relating to the consolidated financial statements as of December 31, 2021, which appear in the Annual Report on Form 10-K for the year ended December 31, 2021.

/s/ HASKELL & WHITE LLP HASKELL & WHITE LLP

Irvine, California February 28, 2022

FENNEC PHARMACEUTICALS INC CERTIFICATION

I, Rostislav Raykov, certify that:

- 1. I have reviewed this annual report on Form 10-K for the period ended December 31, 2021 of Fennec Pharmaceuticals Inc.;
- 2. Based on my knowledge, this Annual 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 Annual Report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this Annual 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 Annual Report;
- 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this Annual 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 Annual Report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this Annual Report based on such evaluation; and
 - (d) Disclosed in this Annual 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.
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 28, 2022

By:/s/ Rostislav Raykov

Rostislav Raykov Chief Executive Officer

FENNEC PHARMACEUTICALS INC. CERTIFICATION

I, Robert Andrade, certify that:

- 1. I have reviewed this annual report on Form 10-K for the period ended December 31, 2021 of Fennec Pharmaceuticals Inc.;
- 2. Based on my knowledge, this Annual 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 Annual Report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this Annual 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 Annual Report;
- 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this Annual 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 Annual Report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this Annual Report based on such evaluation; and
 - (d) Disclosed in this Annual 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.
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 28, 2022

By:/s/ Robert Andrade

Robert Andrade Chief Financial Officer

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

In connection with the Annual Report of Fennec Pharmaceuticals Inc. (the "<u>Company</u>") on Form 10-K for the period ended December 31, 2021 (the "<u>Report</u>"), each of the undersigned, Rostislav Raykov, Chief Executive Officer of the Company, and Robert Andrade, Chief Financial Officer of the Company, hereby certifies pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

Date: February 28, 2022

By:/s/ Rostislav Raykov

Rostislav Raykov Chief Executive Officer

Date: February 28, 2022

By:/s/ Robert Andrade

Robert Andrade Chief Financial Officer



FENNEC PHARMACEUTICALS ANNOUNCES FISCAL YEAR 2021 FINANCIAL RESULTS AND PROVIDES BUSINESS UPDATE

~ Resubmission of NDA for PEDMARKTM Targeted for the First Quarter of 2022 ~

~ Company has Approximately \$21.1 Million in Cash and \$5 Million of Funded Debt ~

Research Triangle Park, NC, February 28, 2022 – Fennec Pharmaceuticals Inc. (NASDAQ:FENC; TSX: FRX), a specialty pharmaceutical company focused on the development of PEDMARKTM (a unique formulation of sodium thiosulfate (STS)) for the prevention of platinum-induced ototoxicity in pediatric patients, today reported its financial results for the fiscal year ended December 31, 2021 and provided a business update.

"We expect to resubmit the New Drug Application (NDA) for PEDMARKTM to the FDA during the first quarter of 2022," said Rosty Raykov, chief executive officer of Fennec Pharmaceuticals. "We remain committed to making PEDMARK commercially available to children and young adults receiving cisplatin chemotherapy, who currently have no approved therapies for ototoxicity."

Financial Results for the Fourth Quarter and Fiscal Year Ended December 31, 2021

- **Cash Position** There was a \$9.2 million decrease in cash and cash equivalents between December 31, 2021 and December 31, 2020. The net decrease was the result of cash operating expenses, offset by the \$5.0 million received from the Bridge Bank Loan Security Agreement and some negligible amounts received from option exercises. During the period ended December 31, 2021, cash for operations was used mainly on pre-commercialization activities for PEDMARK and regulatory submission activities relating to the pending resubmission of the NDA.
- **Research and Development (R&D) Expenses** R&D expenses were \$0.5 and \$5.0 million, respectively, for the fourth quarter and year ended December 31, 2021, compared to \$1.2 million and \$5.1 million for the same period in 2020.
- General and Administrative (G&A) Expenses G&A expenses were \$3.7 million and \$12.2 million, respectively, for the fourth quarter and year ended December 31, 2021, compared to \$2.3 million and \$13.0 million, respectively for the same periods in 2020. The annual decrease in G&A was largely due to commercialization readiness expenses for PEDMARK in 2020, which did not need to be repeated in 2021. The fourth quarter increase in 2021 over the same time period in 2020 arose from non-cash equity grants and our pre-commercialization activities for PEDMARK as the Company prepared for potential NDA approval by the FDA in November 2021.
- Net Loss Net losses for the fourth quarter and year ended December 31, 2021 of \$4.4 million (\$0.18 per share) and \$17.3 million (\$0.67 per share), respectively, compared to \$3.2 million (\$0.13 per share) and \$18.1 million (\$0.76 per share), respectively, for the same periods in 2020.
- **Financial Guidance** The Company believes its cash and cash equivalents on hand as of December 31, 2021 will be sufficient to fund the Company's planned activities for 2022 including NDA resubmission and commercial readiness activities.

Financial Update

The selected financial data presented below is derived from our audited, condensed consolidated financial statements, which were prepared in accordance with U.S. generally accepted accounting principles. The complete audited, condensed consolidated financial statements for the period ended December 31, 2021, and management's discussion and analysis of financial condition and results of operations, will be available via www.sec.gov and www.sedar.com. All values are presented in thousands unless otherwise noted.

Audited Condensed Consolidated Statement of Operations: (U.S. Dollars in thousands except per share amounts)

	Three Months Ended			Twelve Months Endec				
	Dec	ember 31, 2021	Dec	ember 31, 2020	D	December 31, 2021		cember 31, 2020
Revenue	\$	—	\$	170	\$	—	\$	170
Operating expenses:								
Research and development		523		1,223		4,981		5,105
General and administrative		3,684	. <u> </u>	2,293	_	12,242		12,950
Total operating expense		4,207		3,516		17,223		18,055
Loss from operations	_	(4,207)		(3,346)		(17,223)		(17,885)
Other (expense)/income								
Amortization expense		(8)		—		(16)		(402)
Unrealized (loss)/gain on securities		(162)		100		(25)		100
Other loss		(63)		(5)		(136)		(9)
Interest income		13		13		54		87
Total other (expense)/income, net		(220)		108		(123)		(224)
Net loss	\$	(4,427)	\$	(3,238)	\$	(17,346)	\$	(18,109)
Basic net loss per common share	\$	(0.18)	\$	(0.13)	\$	(0.67)	\$	(0.76)
Diluted net loss per common share	\$	(0.18)	\$	(0.13)	\$	(0.67)	\$	(0.76)

Audited Condensed Consolidated Balance Sheets (U.S. Dollars in thousands)

	Dece	ecember 31, 2021		mber 31, 2020
Assets				
Cash and cash equivalents	\$	21,100	\$	30,344
Other current assets		1,287		1,073
Non-current assets, net		27		—
Total Assets	\$	22,414	\$	31,417
Liabilities and stockholders' equity				
Current liabilities	\$	1,654	\$	2,347
Non-current liabilities, net		4,988		
Total stockholders' equity		15,772		29,070
Total liabilities and stockholders' equity	\$	22,414	\$	31,417

Working Capital	Fiscal Year Ended				
Selected Asset and Liability Data:	Decem	ber 31, 2021	December 31, 2020		
(U.S. Dollars in thousands)					
Cash and cash equivalents	\$	21,100	\$	30,344	
Other current assets		1,287		1,073	
Current liabilities excluding derivative liability		(1,654)		(2,347)	
Working capital	\$	20,733	\$	29,070	
Selected Equity:					
Common stock & APIC	\$	194,015	\$	189,967	
Accumulated deficit		(179,486)		(162,140)	
Stockholders' equity		15,772		29,070	

About PEDMARK[™]

Cisplatin and other platinum compounds are essential chemotherapeutic agents for many pediatric malignancies. Unfortunately, platinum-based therapies cause ototoxicity, or hearing loss, which is permanent, irreversible and particularly harmful to the survivors of pediatric cancer.

In the U.S. and Europe, it is estimated that, annually, over 10,000 children may receive platinum-based chemotherapy. The incidence of ototoxicity depends upon the dose and duration of chemotherapy, and many of these children require lifelong hearing aids. There is currently no established preventive agent for this hearing loss and only expensive, technically difficult and sub-optimal cochlear (inner ear) implants have been shown to provide some benefit. Infants and young children that suffer ototoxicity at critical stages of development lack speech language development and literacy, and older children and adolescents lack social-emotional development and educational achievement.

PEDMARK has been studied by cooperative groups in two Phase 3 clinical studies of survival and reduction of ototoxicity, The Clinical Oncology Group Protocol ACCL0431 and SIOPEL 6. Both studies have been completed. The COG ACCL0431 protocol enrolled childhood cancers typically treated with intensive cisplatin therapy for localized and disseminated disease, including newly diagnosed hepatoblastoma, germ cell tumor, osteosarcoma, neuroblastoma, and medulloblastoma. SIOPEL 6 enrolled only hepatoblastoma patients with localized tumors.

The Marketing Authorization Application (MAA) for sodium thiosulfate (tradename PEDMARQSI) is currently under evaluation by the European Medicines Agency (EMA). PEDMARK has received Breakthrough Therapy and Fast Track Designation by the FDA in March 2018.

About Fennec Pharmaceuticals

Fennec Pharmaceuticals Inc. is a specialty pharmaceutical company focused on the development of PEDMARKTM for the prevention of platinum-induced ototoxicity in pediatric patients. Further, PEDMARK has received Orphan Drug Designation in the U.S. for this potential use. Fennec has a license agreement with Oregon Health and Science University (OHSU) for exclusive worldwide license rights to intellectual property directed to sodium thiosulfate and its use for chemoprotection, including the prevention of ototoxicity induced by platinum chemotherapy, in humans. For more information, please visit <u>www.fennecpharma.com</u>

Forward Looking Statements

Except for historical information described in this press release, all other statements are forward-looking. Words such as "believe," "anticipate," "plan," "expect," "estimate," "intend," "may," "will," or the negative of those terms, and similar expressions, are intended to identify forward-looking statements. These forward-looking statements include the Company's expectations regarding its interactions and communications with the FDA, including the Company's expectations and goals respecting the resolution the issues raised in the CRL and the Company's plans to address them, and the anticipated timing of the Company's finalization and filing of an NDA resubmission for PEDMARK. Forward-looking statements are subject to certain risks and uncertainties inherent in the Company's business that could cause actual results to vary, including such risks and uncertainties relating to the Company's reliance on third party manufacturing, the risk that unforeseen factors may delay the resubmission of the NDA, the risks of delays in or failure to obtain FDA approval of PEDMARK, the risks relating to the Company's and its manufacturer's ability to adequately address the concerns identified in the CRL, the risk that the resubmission of the NDA to the FDA will not be satisfactory, that regulatory and guideline developments may change, scientific

data and/or manufacturing capabilities may not be sufficient to meet regulatory standards or receipt of required regulatory clearances or approvals, clinical results may not be replicated in actual patient settings, unforeseen global instability, including political instability, or instability from an outbreak of pandemic or contagious disease, such as the novel coronavirus (COVID-19), or surrounding the duration and severity of an outbreak, protection offered by the Company's patents and patent applications may be challenged, invalidated or circumvented by its competitors, the available market for the Company's products will not be as large as expected, the Company's products will not be able to penetrate one or more targeted markets, revenues will not be sufficient to fund further development and clinical studies, the Company may not meet its future capital requirements in different countries and municipalities, and other risks detailed from time to time in the Company's filings with the Securities and Exchange Commission including its Annual Report on Form 10-K for the year ended December 31, 2021. Fennec disclaims any obligation to update these forward-looking statements except as required by law.

For a more detailed discussion of related risk factors, please refer to our public filings available at <u>www.sec.gov</u> and <u>www.sedar.com</u>. **For further information, please contact:**

Investors:

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