

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, 2016

OR

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

Commission File Number: 001-32295

FENNEC PHARMACEUTICALS INC.
(formerly ADHEREX TECHNOLOGIES INC.)
(Exact Name of Registrant as Specified in Its Charter)

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

20-0442384
(I.R.S. Employer
Identification No.)

PO Box 13628, 68 TW Alexander Drive
Research Triangle Park, NC
(Address of Principal Executive Offices)

27709
(Zip Code)

(919) 636-4530

(Registrant's telephone number, including area code)

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

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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes No

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

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

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company
(Do not check if a smaller reporting company)

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 Common Shares as reported by the OTCQB on June 30, 2016 (the last business day of the Registrant's most recently completed second fiscal quarter) was \$10,156,736 based upon a total of 4,514,105 shares held as of June 30, 2016 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 Company are deemed to be affiliates of the Registrant).

As of March 17, 2017, there were 13,642,567 shares of the Registrant's common stock outstanding.

FENNEC PHARMACEUTICALS INC.
2016 FORM 10-K ANNUAL REPORT
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NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements that involve significant risks and uncertainties. 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,” 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 candidates; (11) the nature and scope of potential markets for our drug candidates; (12) future legal liability; and (13) 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 specifically our need to raise money in the very near term and others, as 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.

Our periodic and current reports are available, free of charge, after the material is electronically filed with, or furnished to, the SEC and EDGAR at <http://www.sec.gov/edgar> and the Canadian securities regulators on SEDAR, at www.sedar.com. The information provided on our website is not part of this Annual Report and is therefore not incorporated herein by reference.

Item 1. Business Overview

Fennec Pharmaceuticals Inc. (“Fennec,” the “Company,” “we,” “us,” or “our”) is a biopharmaceutical company focused on the development of Sodium Thiosulfate (“STS”) for the prevention of platinum-induced ototoxicity in pediatric cancer patients. We incorporated under the Canada Business Corporations Act (“CBCA”) in September 1996. Effective on August 25, 2011, the Company continued from the Canada Business Corporations Act to the Business Corporations Act (British Columbia) (the “Continuance”). The Continuance was approved by the shareholders of Fennec at the Company’s June 2011 Annual and Special Meeting and by resolution of the Board of Directors on August 10, 2011. We have three wholly-owned subsidiaries: Oxiquant, Inc. and Fennec Pharmaceuticals, Inc., both Delaware corporations, and Cadherin Biomedical Inc., a Canadian company. With the exception of Fennec Pharmaceuticals, Inc., all subsidiaries are inactive.

On May 16, 2016, the Company completed the closing of a non-brokered private placement (the “Offering”) of 2,631,579 units for gross proceeds of \$5.0 million to Essetifin, SpA. Each unit was issued at a price of \$1.90 per unit and each unit consisted of 1 common share of the Company.

Lead Product Candidate

The following is our only lead product candidate in the clinical stage of development:

- *Sodium Thiosulfate (STS)* – a water soluble thiol compound that acts as a chemical reducing agent, recently completed patient enrollment of two Phase III clinical trials for the prevention of cisplatin induced hearing loss, or ototoxicity in children.

We continue to focus efforts on the development of STS.

Sodium Thiosulfate (STS)

We have licensed from Oregon Health & Science University (“OHSU”) intellectual property rights for the use of STS as a chemoprotectant, and are developing STS 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 STS can effectively reduce the incidence of hearing loss caused by platinum-based anti-cancer agents. We have received Orphan Drug Designation in the United States of America (the “U.S.” or the “United States”) for the use of STS in the prevention of platinum-induced ototoxicity in pediatric patients.

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. 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. 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.

Investigators at OHSU have conducted Phase I and Phase II studies which have shown STS reduces the hearing loss associated with platinum-based chemotherapy. In one study at OHSU, the need for hearing aids to correct high frequency hearing loss was reduced from about 50% to less than 5%.

STS has been studied by cooperative groups in two Phase III clinical studies of survival and reduction of ototoxicity, The Clinical Oncology Group Protocol ACCL0431 and SIOPEL 6. 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 III 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 through the end of 2014, 45 sites from 12 countries enrolled 109 evaluable patients. Under the terms of our agreement, SIOPEL will conduct and fund all clinical activities and we will provide drug, drug distribution and pharmacovigilance, or safety monitoring, for the study. Interim efficacy results on response to chemotherapy are evaluated after every 20 patients and reviewed by the Independent Data Monitoring Committee (the "IDMC"). The IDMC was established to assess any potential concern of an adverse effect of STS on the efficacy of the cisplatin chemotherapy and to review safety according to protocol pre-specified patient numbers. In February 2015, the IDMC recommended the continuation of SIOPEL 6 after conducting their final safety review on 100 patients. Previously, the IDMC reached a similar conclusion after reviewing the safety of 20, 40, 60 and 80 patients and their current recommendation on 100 patients to continue the clinical trial represents the last and final safety review. Patient recruitment has now been completed and the efficacy outcome based on audiometric results will be evaluated on an ongoing basis as each child reaches the age of 3.5 years. Results for the audiology primary end point with a p-value of 0.045 will be tested with final readout of data expected in fourth quarter of 2017.

The primary objectives of SIOPEL 6 are:

- 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 - Preliminary Results - ASCO 2016

Newly diagnosed patients with standard risk hepatoblastoma were treated with weekly cycles of Cisplatin (Cis) every two weeks, including 4 chemotherapy courses before primary tumor resection and 2 courses after surgery. Patients were randomized to Cisplatin alone (Cis) or Cisplatin and STS (Cis+STS). Cisplatin of 80 mg/m² was administered intravenous over 6 hours. STS was administered intravenous exactly 6 hours after stop of Cisplatin over 15 minutes at 20 g/m². Tumor response was assessed after 2 and 4 cycles pre-operative with serum Alpha-fetoprotein ("AFP") and liver imaging. In case of progression after 2 cycles, STS was stopped and doxorubicin 60 mg/m² continuous infusion over 48 hours added. The primary endpoint is centrally reviewed absolute hearing threshold, at the age of ≥ 3.5 years, by pure tone audiometry. The trial has 80% power to detect a reduction in hearing loss defined as Brock grade ≥ 1 from 60% of patients with Cisplatin to 35% with Cisplatin plus STS. The interim efficacy results indicate the following: i) that it is safe to deliver Sodium Thiosulfate for otoprotection in standard risk hepatoblastoma treated according to the SIOPEL 6 regimen; ii) there is no evidence of tumor protection and iii) the interim results of the first 68 patients achieving centrally reviewed pure tone audiometry at or above 3.5 years of age were encouraging. Efficacy results at the end treatment for the 109 evaluable patients (52 Cisplatin, 57 Cisplatin plus STS) were complete response/partial response/progressive disease for Cisplatin: 85%/8%/5% and for Cisplatin plus STS: 91%/9%/0%, respectively.

RESULTS

109 patients (52 Cis and 57 Cis+STS) were recruited at trial closure in December 2014. The combination of Cis+STS was generally well tolerated.

The median follow up is 34 months and provisional two year event free survival ("EFS") is Cis 86.3% and Cis+STS 89.0%; two year overall survival ("OS") is Cis 91.4% and Cis+STS 97.7%. Treatment failure defined as progressive disease ("PD") at 4 cycles was equivalent in both arms (5 Cis; 5 Cis+STS). Status at last follow-up (February 2016), 5 patients had died (4 Cis; 1 Cis+STS).

COG ACCL0431

In March 2008, we announced the activation of a Phase III trial with STS to prevent hearing loss in children receiving cisplatin-based chemotherapy in collaboration with the Children's Oncology Group ("COG ACCL0431"). The goal of this Phase III study is 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, who are to receive cisplatin according to their disease-specific regimen and, upon enrollment in this study, will be randomized to receive STS or not. Efficacy of STS will be determined through comparison of hearing sensitivity at follow-up relative to baseline measurements using standard audiometric techniques. The Children's Oncology Group is responsible for funding the clinical activities for the study and we are 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 III Study of Sodium Thiosulfate for the Prevention of Cisplatin-Induced Ototoxicity in Children,” finished enrollment of 131 of which 126 were eligible patients in Q1 2012. 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:

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

126 eligible subjects were enrolled with germ cell tumor (32), osteosarcoma (30), neuroblastoma (26), medulloblastoma (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 were 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) and EFS/OS (log-rank test, 2-year cumulative estimates and Cox proportional hazards model) were compared between the two groups.

- The proportion of hearing loss for STS vs. Control was 28.6% (14/49) vs. 56.4% (31/55), respectively (p=0.00022).
- Including all 126 subjects at median post-enrollment follow-up of 3 years for censored patients, EFS for STS vs. Control was 54% vs. 64% (p=0.36); OS was 70% vs. 87% (p=0.07).

A subset analysis by extent of disease determined post hoc was performed:

- For subjects with localized disease, EFS for STS (N=40) vs. Control (N=38) was 60% vs. 66% (p=0.73); Hazard Ratio (“HR”) 1.14; OS was 83% vs. 89% (p=0.48); HR 1.09.
- For those with disseminated (metastatic) disease, EFS for STS (N=21) vs. Control (N=26) was 42% vs. 61% (p=0.16); HR 1.80; OS was 45% vs. 84%; HR 4.10.

COG ACCL0431 - CONCLUSIONS

- STS protects against cisplatin-induced hearing loss in children, especially for those < 5 years old.
- Further research including the final results of SIOPEL 6 study is needed to define the appropriate role for sodium thiosulfate among emerging otoprotection strategies.

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 20 year date. In some cases, the patent term may be extended to recapture a portion of the term lost during the U.S. Food and Drug Administration (“FDA”) regulatory review or because of U.S. Patent and Trademark Office, or USPTO, delays in prosecuting the application. The duration of foreign patents varies similarly, in accordance with local law.

Currently, we have licensed from Oregon Health and Science University 1 U.S. and 9 foreign patents which expire in Europe in 2021, with an additional 1 patent pending.

In addition, periods of marketing exclusivity for STS may also be possible in the United States under orphan drug status and in Europe under European Market Exclusivity for Pediatric Use. We obtained U.S. Orphan Drug Designation for the use of STS in the prevention of platinum-induced ototoxicity in pediatric patients in 2004.

Our success is significantly dependent on our ability to obtain and maintain patent protection for our product candidate, both in the United States and abroad. The patent position of biotechnology and pharmaceutical companies, in general, is highly uncertain and involves complex legal and factual questions, which often results in apparent inconsistencies regarding the breadth of claims allowed and general uncertainty as to their legal interpretation and enforceability. Further, our principal candidate STS, is based on previously known compounds, and the candidates or products that we develop in the future may include or be based on the same or other compounds owned or produced by other parties, some or all of which may not be subject to effective patent protection. In addition, regimens that we may develop for the administration of pharmaceuticals, such as specifications for the frequency, timing and amount of dosages, may not be patentable. Accordingly, our patent applications may not result in patents being issued and issued patents may not afford effective protection. In addition, products or processes that we develop may turn out to be covered by third party patents, in which case we may require a license under such patents if we intend to continue the development of those products or processes.

Our patent position and proprietary rights are subject to certain risks and uncertainties. Please read the "Risk Factors" section 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, Fennec entered into a new exclusive license agreement with OHSU for exclusive worldwide license rights to intellectual property directed to STS and its use for chemoprotection, including the prevention of ototoxicity induced by platinum chemotherapy, in humans (the "New OHSU Agreement").

The term of the New OHSU Agreement expires on the date of the last to expire claim(s) covered in the patents licensed to us, unless earlier terminated as provided in the agreement. STS is currently protected by methods of use patents that we exclusively licensed from OHSU that expire in Europe, Canada and Australia in 2021 and are currently pending in the United States and Japan. The New 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 has the right to terminate the New OHSU Agreement at any time upon 60 days prior written notice and payment of all fees due to OHSU under the New OHSU Agreement.

On May 18, 2015, Fennec negotiated an amendment ("Amendment 1") to the exclusive license agreement with Oregon Health & Science University ("OHSU"). Amendment 1 expands the exclusive license agreement signed with OHSU on February 20, 2013 or New OHSU Agreement to include the use of N-acetylcysteine as a standalone therapy and/or in combination with Sodium Thiosulfate ("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 Amendment 1 under the OHSU Agreement 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.

Competition

Competition in the biotechnology and pharmaceutical industries is intense. We expect that if our product candidate 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.

There are a number of different approaches to the development of therapeutics for the treatment of cancer that are currently being used and studied. These approaches include: (i) surgery to excise the cancerous tissue; (ii) radiation therapy, which attacks cancerous cells but does not easily distinguish between healthy and diseased cells; (iii) chemotherapy, which works by preventing a cancerous cell from dividing or by killing cells that quickly divide; (iv) immunotherapy, which stimulates the body's immune system to respond to the disease; and (v) hormone therapy, which may slow the growth of cancer cells or even kill them.

We are aware of a number of companies engaged in the research, development and testing of new cancer therapies or means of increasing the effectiveness of existing therapies, including, among many others, Amgen, AstraZeneca, Bayer, Bristol-Myers Squibb, Eli Lilly, Eisai, Merck KGaA, Novartis, Johnson & Johnson, Pfizer, Roche, Taiho and Sanofi-Aventis. Some of these companies have products that have already received, or are in the process of receiving, regulatory approval or are in later stages of clinical development than our product. Many of them have much greater financial resources than we do. Many of these companies have marketed drugs or are developing targeted cancer therapeutics which, depending upon the mechanism of action of such agents, could be viewed as competitors.

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 STS. 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 STS 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 STS) 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 performed. 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 but are often suboptimal.

Many of our existing or potential competitors have substantially greater financial, technical and human resources than we do and may be better equipped to develop, manufacture and market products. In addition, many of these competitors have extensive experience with preclinical testing and human clinical trials and in obtaining regulatory approvals. In addition, many of the smaller companies that compete with us have formed collaborative relationships with large, established companies to support the research, development, clinical trials and commercialization of any products that they may develop. We may rely on third parties to commercialize the products we develop, and our success will depend in large part on the efforts and competitive merit of these collaborative partners. Academic institutions, government agencies and other public and private research organizations may also conduct research, seek patent protection and establish collaborative arrangements for research, clinical development and marketing of products similar to those we seek to develop. These companies and institutions compete with us in recruiting and retaining qualified scientific and management personnel as well as in acquiring technologies complementary to our projects. The existence of competitive products, including products or treatments of which we are not aware, or products or treatments that may be developed in the future, may adversely affect the marketability of any products that we may develop.

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 New Drug Application. 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, or 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 "Good Laboratory Practices" as well as "Good Clinical Practices" during clinical testing and "Good Manufacturing Practices" 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 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 I Clinical Trials:* Most Phase I 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 I clinical trials are conducted in patients rather than healthy volunteers.
- *Phase II Clinical Trials:* Phase II 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 II 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 III Clinical Trials:* Phase III 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 III 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 III clinical trial to serve as a pivotal efficacy trial to support a Marketing Application.
- *Marketing Application:* Upon completion of Phase III 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 New Drug Application, 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 Investigational New Drug, (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, or 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.

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 Good Clinical Practices through periodic inspections of trial sponsors, principal investigators and trial sites. If our study sites fail to comply with applicable Good Clinical Practices, 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.

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 U.S. 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 the indication for which it has such designation, the product is entitled to orphan exclusivity, i.e., the FDA may not approve any other applications 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 orphan product. Legislation similar to the U.S. Orphan Drug Act has been enacted in other countries, including within the European Union.

Pediatric Marketing Use Authorization ("PUMA")

The PUMA approval is granted by the European Medicines Agency and is intended exclusively for pediatric (patients under 18 years of age) use. PUMA approval is valid in all countries within the European Economic Area. The PUMA process was established to make it more efficient for pharmaceutical companies to market drugs for children. New data for PUMA drugs are protected for 10 years and the applications are, in part, exempt from fees.

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 STS since 2013.

We have established relationships with contract research organizations, 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 staff.

Research and development expenses totaled \$0.5 million and \$0.3 million for the fiscal years ended December 31, 2016 and 2015, respectively.

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 this product 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, 2016, we had three employees (our Chief Executive Officer, Chief Financial Officer and Controller). These employees are employed on a full-time basis and there are no part-time employees. The company uses independent contractors to perform certain daily operations of the company.

Item 1A. Risk Factors

An investment in our common stock involves a significant risk of loss. You should carefully read this entire 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 report. These factors include, without limitation, the risk factors listed below and other factors presented throughout this report and any other documents filed by us with the Securities and Exchange Commission, or the SEC, and the Canadian securities regulators on SEDAR which can be accessed at www.sedar.com.

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 sale of our 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 on September 3, 1996. We reported a loss of approximately \$2.8 million (including a non-cash gain on derivative liabilities of \$0.05 million) in the twelve months ended December 31, 2016, and reported a net loss of approximately \$0.7 million (which included a non-cash gain on derivative liabilities of \$1.2 million) for the twelve months ended December 31, 2015. At December 31, 2016, we had an accumulated deficit of approximately \$114.3 million. We anticipate incurring substantial additional losses due to the need to spend substantial amounts on our current clinical trials, anticipated research and development activities, and general and administrative expenses, among other factors. We have not commercially introduced any product and results from our current product trials are not expected until the fourth quarter of 2017. 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.

There is no assurance that we will successfully develop 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 additional clinical trials, if at all. There can be no assurance that the research we fund and manage will lead to a commercially viable product. We have completed enrollment of two Phase III studies for STS. STS must still undergo substantial additional regulatory review prior to commercialization.

We anticipate the need for additional capital in the future and if we cannot raise additional capital, we will not be able to fulfill our business plan.

We need to obtain additional funding in the future in order to finance our business strategy, operations and growth. 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 stock 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 STS. We also rely on collaborators for testing STS, 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 the licensor. 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, or 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.

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 candidates or others might market equivalent or superior products.

We must conduct 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 are safe and effective for use in each target indication. To date, we have performed only limited clinical trials, and we have only done so with some of our product candidate. Much of our testing has been conducted on animals or on human cells in the laboratory, and the benefits of treatment seen in animals may not ultimately be obtained in human clinical trials. As a result, we may need to perform significant additional research and development and extensive preclinical and clinical testing prior to any application for commercial use. We may suffer significant setbacks in 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 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 competitive 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 drug 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:

- lack of 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 FDA's satisfaction 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 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 manufacturers are also required to comply with the applicable current FDA Good Manufacturing Practices regulations, which include requirements relating to quality control and quality assurance, as well as the corresponding maintenance of records and documentation. Further, manufacturing facilities must be approved by the FDA before they can be used to manufacture our product, and they are subject to additional FDA inspection. If we fail to comply with any of the FDA's continuing regulations, 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 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 STS.

In May 2016, we announced the closing of a private placement for proceeds of \$5.0 million. The Company spent \$0.5 million of those proceeds on research and development. The Company spent an additional \$0.2 million on U.S. and European regulatory consulting. Any inability on our part to manage effectively the deployment of this capital could limit our ability to successfully develop STS.

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. STS 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 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.

STS is currently protected by methods of use patents that we exclusively licensed from OHSU that expire in Europe in 2021 and are currently pending in the United States. In addition, periods of marketing exclusivity for STS may also be possible in the United States under orphan drug status. We obtained Orphan Drug Designation in the United States for the use of STS in the prevention of platinum-induced ototoxicity in pediatric patients in 2004; if it is subsequently approved, will have seven and a half years of pediatric exclusivity in the United States from the approval date. Refer to the “Description of Business” section of this report for a further description of the United States Orphan Drug Designation.

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 any future income. 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 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.

STS is currently only covered by “method of use” patents, which covers the use of certain compounds to treat specific conditions, and are not covered by “composition of matter” patents, which would cover the chemical composition of the compound. Method of use patents provides 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.

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 STS, including drug substance providers and drug product suppliers, but they might not perform as agreed in the future or may terminate our agreement 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. 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 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 do 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 license 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 volatility of the current financial markets exposes us to increased investment risk, including the risks that the value and liquidity of our money market investments 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.

Risks Related to Our Industry

If we are unable to obtain applicable U.S. and/or foreign regulatory approvals, we will be unable to develop and commercialize our drug candidates.

The preclinical studies and clinical trials of our product candidates, as well as the manufacturing, labeling, sale and distribution, export or import, marketing, advertising and promotion of our product candidates are subject to various regulatory frameworks in the United States, Canada and other countries. Any products that we develop must receive all relevant regulatory approvals and clearances before any marketing, sale or distribution. The regulatory process, which includes extensive preclinical studies and clinical testing to establish product safety and efficacy, can take many years and cost substantial amounts of money. As a result of the length of time, many challenges and costs associated with the drug development process, the historical rate of failures for drug candidates is extremely high. Changes in regulatory policy could also cause delays or affect regulatory approval. Any regulatory delays may increase our development costs and negatively impact our competitiveness and prospects. It is possible that we may not be able to obtain regulatory approval of our drug candidate or approvals may take longer and cost more to obtain than expected.

Regulatory approvals, if granted, may entail limitations on the uses for which any product we develop may be marketed, limiting the potential sales for any such products. The granting of product approvals can be withdrawn at any time, and manufacturers of approved products are subject to regular reviews, including for compliance with FDA Good Manufacturing Practices regulations. Failure to comply with any applicable regulatory requirement, which may change from time to time, can result in warning letters, fines, sanctions, penalties, recalling or seizing products, suspension of production, or even criminal prosecution.

Future sales of our product candidate may suffer if they fail to achieve market acceptance.

Even if our product candidate is successfully developed and achieves appropriate regulatory approval, it may not enjoy commercial acceptance or success. Our product candidate may compete with a number of new and traditional drugs and therapies developed by major pharmaceutical and biotechnology companies. Market acceptance is dependent on the product candidate demonstrating clinical efficacy and safety, as well as demonstrating advantages over alternative treatment methods. In addition, market acceptance is influenced by government reimbursement policies and the ability of third parties to pay for such products. Physicians, patients, the medical community or patients may not accept or utilize any products we may develop.

We face a strong competitive environment. Other companies may develop or commercialize more effective or cheaper products, which may reduce or eliminate the demand for our product candidate.

The biotechnology and pharmaceutical industry, and in particular the field of cancer therapeutics where we are focused, is very competitive. Many companies and research organizations are engaged in the research, development and testing of new cancer therapies or means of increasing the effectiveness of existing therapies, including, among many others, Amgen, AstraZeneca, Bayer, Bristol-Myers Squibb, Eli Lilly, Eisai, Merck KGaA, Novartis, Johnson & Johnson, Pfizer, Roche, Taiho and Sanofi-Aventis. Many of these companies have marketed drugs or are developing targeted cancer therapeutics which, depending upon the mechanism of action of such agents could be competitors.

Many of our existing or potential competitors have substantially greater financial, technical and human resources than we do and may be better equipped to develop, manufacture and market products. In addition, many of these competitors have extensive experience with preclinical testing and human clinical trials and in obtaining regulatory approvals. Also, some of the smaller companies that compete with us have formed collaborative relationships with large, established companies to support the research, development, clinical trials and commercialization of any products that they may develop. Academic institutions, government agencies and other public and private research organizations may also conduct research, seek patent protection and establish collaborative arrangements for research, clinical development and marketing of products similar to those we seek to develop. These companies and institutions compete with us in recruiting and retaining qualified scientific and management personnel as well as in acquiring technologies complementary to our projects.

We are likely to face competition in the areas of product efficacy and safety, ease of use and adaptability, as well as pricing, product acceptance, regulatory approvals and intellectual property. Competitors could develop more effective, safer and more affordable products than we do, and they may obtain patent protection or product commercialization before we do or even render our product candidate obsolete. The existence of competitive products, including products or treatments of which we are not aware, or products or treatments that may be developed in the future, may adversely affect the marketability of any product that we develop.

We may face product liability claims that could require us to defend costly lawsuits or incur substantial liabilities that could adversely impact our financial condition, receipt of regulatory approvals for our product candidates and our results of operation.

The use of our product candidate in clinical trials and for commercial applications, if any, may expose us to liability claims in the event that such product candidate cause injury or death or result in other adverse effects. These claims could be made by health care institutions, contract laboratories, and subjects participating in our clinical studies, patients or others using our product candidates. In addition to liability claims, certain serious adverse events could require interruption, delay and/or discontinuation of a clinical trial and potentially prevent further development of the product candidate. We carry clinical trial insurance but the coverage may not be sufficient to protect us from legal expenses and liabilities we might incur. Litigation is very expensive, even if we defend successfully against possible litigation. In addition, our existing coverage may not be adequate if we further develop products, and future coverage may not be available in sufficient amounts or at reasonable cost. In addition, we might reduce the amount of this coverage due to our limited financial resources. Adverse liability claims may also harm our ability to obtain or maintain regulatory approvals.

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

In the past, our research and development processes involved 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. Our current practice is to outsource these activities.

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 for the products.

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 candidates.

In the U.S., there have been numerous proposals considered at the federal and state levels for comprehensive reforms of health care and its cost, and it is likely that federal and state legislatures and health agencies will continue to focus on health care reform in the future. 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.

To date, the Affordable Care Act (ACA) has not mandated the negotiation of price at the State or Federal level, nor has it identified the need for a federal level Formulary. The expansion of insured among children under the ACA is not expected to be significant since Medicaid was more available to children than the general population. The ACA should not have significant implications for the Company.

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

Our common stock has been delisted from NYSE Alternext US LLC (formerly the American Stock Exchange), which may make it more difficult for shareholders to dispose of their shares.

In December 2008, we received notice from the NYSE Alternext US, LLC (formerly the American Stock Exchange), or AMEX, that we were not in compliance with Section 1003(a)(ii) of its Company Guide, because our stockholders' equity was below \$6 million and we had incurred losses from continued operations and net losses in the five most recent fiscal years. On January 20, 2009, we voluntarily filed to delist our common stock from the AMEX and effective January 30, 2009, our common stock no longer traded on the AMEX. As a result, any trading of our common stock in the U.S. will need to be conducted in the over-the-counter market. In addition, our common stock is also subject to the SEC's penny stock rules, which impose additional requirements on broker-dealers who effect trades. As a result, shareholders might have difficulty selling our common stock.

We may be unable to maintain the listing of our common stock on the TSX and that would make it more difficult for shareholders to dispose of their common stock.

Our common stock is currently listed on the TSX. The TSX has rules for continued listing, including minimum market capitalization and other requirements, that we might not meet in the future, particularly if the price of our common stock does not increase or we are unable to raise additional capital to continue operations.

Delisting from the TSX would make it more difficult for shareholders to dispose of their common stock and more difficult to obtain accurate quotations on our common stock. This could have an adverse effect on the price of our common stock. There can be no assurances that a market maker will make a market in our common stock on the OTCQB 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 stock, our common stock is 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 fact that our securities are not traded on a national securities exchange.

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

Historically, the market price of our common stock has been highly volatile and the market for our common stock has from time to time experienced significant price and volume fluctuations, some of which are unrelated to our operating performance. From March 15, 2012 to March 17, 2017, the closing trading price of our stock fluctuated from a high of \$6.60 Canadian dollars (“CAD”) per share to a low of CAD\$0.33 per share on the TSX. From July 1, 2008 until our delisting on January 30, 2009, the closing trading price of our stock fluctuated from a high of \$12.42 per share to a low of \$0.54 per share on the AMEX. Historically, our common stock has 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 stock. It is likely that the market price of our common stock will continue to fluctuate significantly in the future.

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

- 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;
- 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 common stock is deemed to be a “penny stock,” which may make it more difficult for investors to sell their shares due to suitability requirements.

Our common stock is subject to Rule 15c-1 through 15c-9 under the Securities Exchange Act of 1934 as amended (the “Exchange Act”), which imposes certain sales practice requirements on broker-dealers who sell our common stock to persons other than established customers and “accredited investors” who are generally individuals with a net worth in excess of \$1,000,000 (excluding their principal residence) or an annual income exceeding \$200,000, or \$300,000 together with their spouses. For transactions covered by this rule, a broker-dealer must make a special suitability determination for the purchaser and have received the purchaser’s written consent to the transaction prior to the sale. This rule adversely affects the ability of broker-dealers to sell our common stock and the ability of our shareholders to sell their shares of common stock.

Additionally, our common stock is subject to additional SEC regulations for “penny stock.” Penny stock includes any equity security that is not listed on a national securities exchange and has a market price of less than \$5.00 per share, subject to certain exceptions. The regulations require that prior to any non-exempt buy/sell transaction in a penny stock, a disclosure schedule set forth by the SEC relating to the penny stock market must be delivered to the purchaser of such penny stock. This disclosure must include the amount of commissions payable to both the broker-dealer and the registered representative and current price quotations for the common stock. The regulations also require that monthly statements be sent to holders of penny stock that disclose recent price information for the penny stock and information of the limited market for penny stocks. These requirements adversely affect the market liquidity of our common stock.

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

At March 17, 2017, our current shareholders separately representing more than 5% ownership in our Company collectively represented beneficial ownership of approximately 66.7% of our common stock. In particular, Southpoint Capital Advisors LP (“Southpoint Capital”) owns or exercises control over 4.0 million shares of common stock, representing approximately 29.3% of the issued and outstanding common stock. In addition, Essetifin SpA, owns approximately 2.6 million shares, or 19.3% of our common stock. In addition, Manchester Explorer, LP (“Manchester Explorer”), together with its associates, owns approximately 1.8 million shares, or 12.5% of our common stock. Furthermore, Mr. Robert Butts, the former Chairman of our Board of Directors, individually owns approximately 0.8 million shares, or 5.6% of our common stock. Southpoint Capital, Manchester Explorer, our other shareholders representing more than 5% ownership, 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 stock or deprive our other shareholders of an opportunity to receive a premium for their common stock as part of a sale of our company.

There are a large number of shares of our common stock underlying outstanding warrants and 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 stock and result in substantial dilution to the holders of our common stock.

Sale or issuance of a substantial number of shares of our common stock in the future could cause the market price of our common stock to decline. It may also impair our ability to obtain additional financing. At March 17, 2017, we had outstanding warrants to purchase approximately 1.4 million shares (\$2.15 million) of our common stock with a weighted average exercise price of \$1.55 per common share. In addition, at March 17, 2017, there were approximately 2.4 million shares issuable upon the exercise of stock options granted by us of which approximately \$2.4 million were denominated in Canadian dollars and had a weighted average exercise price of CAD \$2.38 per common share and approximately \$2.7 million were denominated in U.S. dollars and had a weighted average exercise price of \$1.92 per common share. We may also issue further warrants as part of any future financings in addition to the additional 1.0 million options to acquire our common stock currently remaining and available for issuance under our stock option plan.

We may need to raise substantial additional funds in the near 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 substantial additional funds through either the sale of additional equity, the issue 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 shares of common stock and/or securities convertible into common stock and the issuance of debt.

We cannot predict the size of future issues of common stock or the issue of securities convertible into common stock or the effect that any such future issues and sales of common stock will have on the market price of our common stock. However, given the current market price of our common stock, any transaction involving the issue of common stock, or securities convertible into common stock, will likely result in immediate and substantial dilution to present and prospective holders of common stock. 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.

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 stock and the lack of a dividend payable on our common stock might depress the value of your investment.

We will use all available funds to finance the development of our product candidates and operation of 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 your common stock.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

We lease approximately 350 square feet of office space in Research Triangle Park, North Carolina. The current monthly lease payments are approximately \$850 and the lease is terminable with 30 days' notice.

Item 3. Legal Proceedings

None.

Item 4. Mine Safety Disclosures

Not applicable.

Part II

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

Our common stock currently trades in the U.S. on the OTCQB Market under the trading symbol "FENCF", and has traded in Canada on the TSX under the trading symbol "FRX" since September 3, 2014. The following table sets forth the quarterly high and low market closing prices, and average daily trading volume on the OTCQB and the TSX, for the two most recent full fiscal years (prices reflect the September 3, 2014 stock split):

| | OTC Market: OTCQB (in U.S. dollars) | | | Toronto Stock Exchange (in Canadian dollars) | | |
|------------------------|--|---------|--------|---|---------|--------|
| | High \$ | Low \$ | Volume | High \$ | Low \$ | Volume |
| Fiscal 2016: | | | | | | |
| Quarter ended 12/31/16 | \$ 2.18 | \$ 1.64 | 1,821 | \$ 2.85 | \$ 2.21 | 1,576 |
| Quarter ended 09/30/16 | 2.30 | 1.85 | 4,469 | 3.15 | 2.41 | 2,060 |
| Quarter ended 06/30/16 | 3.05 | 1.66 | 1,641 | 3.85 | 2.18 | 6,509 |
| Quarter ended 03/31/16 | \$ 2.06 | \$ 1.13 | 1,617 | \$ 2.85 | \$ 1.65 | 2,453 |
| Fiscal 2015: | | | | | | |
| Quarter ended 12/31/15 | \$ 2.05 | \$ 0.29 | 2,341 | \$ 2.91 | \$ 1.48 | 3,465 |
| Quarter ended 09/30/15 | 2.55 | 2.01 | 2,614 | 3.26 | 2.65 | 3,415 |
| Quarter ended 06/30/15 | 2.57 | 2.06 | 2,965 | 3.24 | 2.50 | 2,544 |
| Quarter ended 03/31/15 | \$ 2.86 | \$ 2.00 | 4,698 | \$ 3.55 | \$ 2.51 | 4,598 |

As of March 17, 2017, the last reported sale on the TSX was CAD\$3.25 per share and the last reported sale on the OTCQB was \$2.30 per share.

Record Holders

As of March 17, 2017, there were approximately 51 shareholders of record of our common stock, one of which was Cede & Co., a nominee for Depository Trust Company, or DTC, and one of which was The Canadian Depository for Securities Limited, or 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 stock. 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.

Recent Sales of Unregistered Securities

During the year ended December 31, 2016 and 2015, the Company granted 369,725 and 70,708 options, respectively. These options were issued to certain consultants, officers and directors of the Company. The options were issued in a private placement exempt under Section 4(2) of the Securities Act of 1933, as amended (the "Securities Act"). All options were denominated in United States dollars ("USD") and are exercisable for a period of seven years from the grant date. Details of the grants are listed in the following table:

| Date of Grant | Option to Purchase Shares | Exercise Price \$USD |
|-------------------|---------------------------|----------------------|
| March 16, 2015 | 3,984 | 2.51 |
| May 11, 2015 | 4,346 | 2.30 |
| August 3, 2015 | 4,254 | 2.35 |
| November 10, 2015 | 8,124 | 1.23 |
| December 11, 2015 | 50,000 | 1.13 |
| June 9, 2016 | 49,180 | 2.44 |
| July 5, 2016 | 285,000 | 2.45 |
| December 30, 2016 | 35,545 | 2.11 |

Exercises of warrants and options resulted in the issuance of approximately 71,000 and 347,000 new common shares in the years ended December 31, 2016 and 2015, respectively. These exercises resulted in gross proceeds to the Company of approximately \$108,000 and \$497,000 for the years ended December 31, 2016 and 2015, respectively.

Material United States Federal and Canadian Income Tax Consequences

This section summarizes the material U.S. federal and Canadian federal income tax consequences of the ownership and disposition of the common stock. Nothing contained herein shall be construed as tax advice; you must rely only on the advice of your own tax advisor. We make no assurances as to the applicability of any tax laws with respect to any individual investment.

This summary relating to the common stock applies to the beneficial owners who are individuals, corporations, trusts and estates that:

- at all relevant times are: (i) U.S. persons for purposes of the U.S. Internal Revenue Code of 1986, as amended through the date hereof, or the Code, (ii) nonresidents of Canada for purposes of the Income Tax Act (Canada), or the Income Tax Act, and (iii) residents of the United States for purposes of, and entitled to all the benefits under, the Canada-United States Income and Capital Tax Convention (1980), as amended through the date hereof, or the Tax Treaty;
- hold common stock as a capital asset for purposes of the Code and capital property for the purposes of the Income Tax Act;
- deal at arm's length with, and are not affiliated with, the Company for purposes of the Income Tax Act; and
- do not and will not use or hold the common stock in carrying on a business in Canada.

Persons who satisfy the above conditions are referred to as "U.S. Shareholders."

The tax consequences of an investment in common stock by persons who are not U.S. Shareholders may differ materially from the tax consequences discussed in this section. The Income Tax Act contains rules relating to securities held by some financial institutions. This Annual Report does not discuss these rules, and holders that are financial institutions should consult their own tax advisors. This discussion is based upon the following, all as currently in effect:

- the Income Tax Act and regulations under the Income Tax Act;
- the Code and U.S. Treasury regulations under the Code;
- the U.S.-Canada Tax Treaty;
- the administrative policies and practices published by the Canada Revenue Agency, formerly Revenue Canada;
- all specific proposals to amend the Income Tax Act and the regulations under the Income Tax Act that have been publicly announced by or on behalf of the Minister of Finance (Canada) prior to the date of this report;
- the administrative policies and rulings published by the U.S. Internal Revenue Service, or the IRS; and
- judicial decisions.

All of the foregoing are subject to change either prospectively or retroactively. This summary does not take into account estate or gift tax laws, the tax laws of the various provinces or territories of Canada or the tax laws of the various state and local jurisdictions of the United States or foreign jurisdictions.

This discussion does not address all possible tax consequences relating to an investment in common stock. No account has been taken of your particular circumstances, and this summary does not address consequences peculiar to you if you are subject to special provisions of U.S. or Canadian income tax law (including, without limitation, dealers in securities or foreign currency, tax-exempt entities, banks, insurance companies or other financial institutions, persons that hold common stock as part of a "straddle," "hedge" or "conversion transaction," persons acquiring shares upon exercise of stock options or in other compensatory transactions, and U.S. Shareholders that have a "functional currency" other than the U.S. dollar or that own common stock through a partnership, persons that hold common stock other than as a capital asset within the meaning of Section 1221 of the Code (generally, property held for investment purposes) or other pass-through entity). Therefore, you should consult your own tax advisor regarding the tax consequences of purchasing and owning our common stock.

Material U.S. Federal Income Tax Considerations

Subject to the discussion below regarding Passive Foreign Investment Companies and Controlled Foreign Corporations, this section summarizes certain material U.S. federal income tax consequences of ownership and disposition of our common stock to U.S. Shareholders.

This summary is for general information purposes only and does not purport to be a complete analysis or listing of all potential U.S. federal income tax considerations that may apply to a U.S. Shareholder arising from and relating to the ownership, and disposition of common stock. In addition, this summary does not take into account the individual facts and circumstances of any particular U.S. Shareholder that may affect the U.S. federal income tax consequences to such U.S. Shareholder, including specific tax consequences to a U.S. Shareholder under an applicable 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. Shareholder. This summary does not address the U.S. federal alternative minimum, U.S. federal estate and gift, U.S. state and local, and foreign tax consequences to U.S. Shareholders of the acquisition, ownership, and disposition of common stock. In addition, except as specifically set forth below, this summary does not discuss applicable tax reporting requirements. Each prospective U.S. Shareholder should consult its own tax advisors regarding the U.S. federal, U.S. federal alternative minimum, U.S. federal estate and gift, U.S. state and local, and non-U.S. tax consequences relating to the ownership and disposition of common stock.

No legal opinion from U.S. legal counsel or ruling from the Internal Revenue Service (the "IRS") has been requested, or will be obtained, regarding the U.S. federal income tax consequences of the ownership and disposition of common stock. This summary is not binding on the IRS, and the IRS is not precluded from taking a position that is different from, and contrary to, the positions taken in this summary. In addition, because the authorities on which this summary is based are subject to various interpretations, the IRS and the U.S. courts could disagree with one or more of the conclusions described in this summary.

U.S. Shareholders are generally required to include in income dividend distributions, if any, paid by a corporation to the extent of a corporation's current or accumulated earnings and profits attributable to the distribution as computed based on U.S. income tax principles. The amount of any cash distribution paid in Canadian dollars will be equal to the U.S. dollar value of the Canadian dollars on the date of distribution based on the exchange rate on such date, regardless of whether the payment is in fact converted to U.S. dollars, and without reduction for Canadian withholding tax. For a discussion of Canadian withholding taxes applicable to dividends paid by the Company, see "Material Canadian Federal Income Tax Considerations." You will generally be entitled to a foreign tax credit or deduction for U.S. federal income tax purposes in an amount equal to the Canadian tax withheld. To the extent distributions paid by the Company on the common stock exceed the Company's current or accumulated earnings and profits, they will be treated first as a return of capital up to your adjusted tax basis in the shares and then as capital gain from the sale or exchange of the shares.

Dividends received on common stock by corporate U.S. Shareholders generally will not be eligible for the "dividends received deduction." Subject to applicable limitations and provided the Company is eligible for the benefits of the Tax Treaty, dividends paid by the Company to non-corporate U.S. Shareholders, including individuals, generally will be eligible for the preferential tax rates applicable to long-term capital gains for dividends, provided certain holding period and other conditions are satisfied, including that the Company not be classified as a PFIC (as defined below) in the tax year of distribution or in the preceding tax year. The dividend rules are complex, and each U.S. Shareholder should consult its own tax advisors regarding the application of such rules.

Dividends paid by the Company generally will constitute foreign source dividend income and "passive income" for purposes of the foreign tax credit, which could affect the amount of foreign tax credits available to you. The Code applies various limitations on the amount of foreign tax credits that may be available to a U.S. taxpayer.

Because of the complexity of those limitations, you should consult your own tax advisor with respect to the availability of foreign tax credits.

If you sell the common stock, you generally will recognize gain or loss in an amount equal to the difference between the amount realized on the sale and your adjusted tax basis in the shares. Any such gain or loss will be long-term or short-term capital gain or loss, depending on whether the shares have been held by you for more than one year, and will generally be U.S.-source gain or loss, except as otherwise provided in an applicable income tax treaty and if an election is properly made under the Code. Long-term capital gains generally are taxed at lower rates than items of ordinary income. The deductibility of capital losses is subject to limitations.

Certain individuals, estates and trusts whose income exceeds certain thresholds will be required to pay a 3.8% Medicare surtax on "net investment income" including, among other things, dividends and net gain from dispositions of property (other than property held in certain trades or businesses).

A non-corporate U.S. shareholder may, under certain circumstances, be subject to information reporting requirements and "backup withholding" at a 28% rate on payments in the United States of dividends on, and the proceeds of disposition of, common stock. Backup withholding with respect to such amounts may apply unless you furnish the paying agent or middleman with a duly completed and signed Form W-9. You will be allowed a refund or a credit equal to any amount withheld under the U.S. backup withholding rules against your U.S. federal income tax liability, provided you furnish the required information to the IRS.

Under U.S. federal income tax law and Treasury Regulations, certain categories of U.S. shareholders must file information returns with respect to their investment in, or involvement in, a foreign corporation. For example, U.S. return disclosure obligations (and related penalties) are imposed on individuals who are U.S. shareholders that hold certain specified foreign financial assets in excess of certain thresholds. The definition of specified foreign financial assets 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. shareholders may be subject to these reporting requirements unless their common stock is held in an account at a domestic financial institution. Penalties for failure to file certain of these information returns are substantial.

Tax Consequences if We are a Passive Foreign Investment Company

A foreign corporation generally will be treated as a "passive foreign investment company" ("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.

The Company has not made the analysis necessary to determine whether or not it is currently a PFIC or whether it has ever been a PFIC. There can be no assurance that the Company is not, has never been or will not in the future be a PFIC. If the Company were to be treated as a PFIC, any gain recognized by a U.S. shareholder upon the sale (or certain other dispositions) of common stock (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 common stock. 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 the Company's income or (ii) may elect to mark-to-market the common stock 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 stock. Additionally, if the Company is deemed to be a PFIC, a U.S. shareholder who acquires common stock in the Company from a decedent will be denied the normally available step-up in tax basis to fair market value for the common stock 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 the Company nor its advisors have the duty to or will undertake to inform U.S. shareholders of changes in circumstances that would cause the Company 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 the Company is determined to be a PFIC at any point in time after the date of this report. The Company does not currently intend to take the action necessary for a U.S. shareholder to make a "qualified electing fund" election in the event the Company is determined to be a PFIC.

Tax Consequences if We are a Controlled Foreign Corporation

A foreign corporation will be treated as a "controlled foreign corporation" ("CFC") for United States 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. If a foreign corporation is a CFC for an uninterrupted period of 30 days or more during any taxable year, each United States Shareholder of the corporation who owns, directly or indirectly, shares in the corporation on the last day of the taxable year on which it is a CFC will be required to include in its gross income for United States federal income tax purposes its pro rata share of the CFC's "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.

United States persons who might, directly, indirectly or constructively, acquire 10% or more of the shares of the Company or any of its non-U.S. subsidiaries, and therefore might be a United States Shareholder, should consider the possible application of the CFC rules, and consult a tax advisor with respect to such matter.

Material Canadian Federal Income Tax Considerations

This section summarizes the material anticipated Canadian federal income tax considerations relevant to the ownership and disposition of the common stock.

Under the Income Tax Act, assuming you are a U.S. Shareholder, and provided the common stock is listed on a designated stock exchange, which includes the TSX, you will generally not be subject to Canadian tax on a capital gain realized on an actual or deemed disposition of the common stock unless at any time during the sixty (60) month period before the actual or deemed disposition both: (A) you alone or together with persons with whom you did not deal at arm's length owned or had rights to acquire 25% or more of our issued shares of any class and (B) more than 50% of the fair market value of the common stock was derived directly or indirectly from (i) real or immovable property situated in Canada; (ii) Canadian resource properties; (iii) timber resource properties; and (iv) options in respect of (i), (ii) or (iii) during the sixty (60) month period that precedes the disposition. Based upon our review of our financial data for the current and prior fiscal years, we have determined that our common stock does not currently derive, and has not derived during the past sixty (60) months, more than 50% of its fair market value from the property listed above, and this characterization of our common stock will likely continue.

Dividends paid, credited or deemed to have been paid or credited on the common stock to U.S. Shareholders will be subject to a Canadian withholding tax under the Income Tax Act at a rate of 25% of the gross amount of the dividends. Under the Tax Treaty, the rate of withholding tax on dividends generally applicable to U.S. Shareholders who beneficially own the dividends is reduced to 15%. In the case of U.S. Shareholders that are corporations that beneficially own at least 10% of the Company's 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, and therefore do not benefit from these reduced rates, however, reduced rates under the Tax Treaty apply to members of fiscally transparent entities who would be entitled to rely on the Tax Treaty if they held the common stock directly. Members of such entities are regarded as holding their proportionate share of the common stock held by the entity for the purposes of the Tax Treaty.

Canada does not currently impose any federal estate taxes or succession duties. However, if you die, there is a deemed disposition of the common stock held at that time for proceeds of disposition generally equal to the fair market value of the common stock immediately before your death. Capital gains realized on the deemed disposition, if any, will have the income tax consequences described above.

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

CAUTIONARY STATEMENT

The discussion below contains forward-looking statements regarding our financial condition and our results of operations that are based upon our annual consolidated financial statements, which have been prepared in accordance with generally accepted accounting principles within the United States, or U.S. GAAP, and applicable U.S. Securities and Exchange Commission, or SEC, regulations for financial information. The preparation of these financial statements requires our management to make estimates and judgments that affect the reported amounts of assets, liabilities, income and expenses, and related disclosure of contingent assets and liabilities. We evaluate our estimates on an ongoing basis. Our estimates are based on historical experience and on various other assumptions that we believe to be reasonable.

Overview

The following is our only lead product candidate in the clinical stage of development:

- Sodium Thiosulfate (STS) – a water soluble thiol compound that acts as a chemical reducing agent, recently completed patient enrollment of two Phase III clinical trials for the prevention of cisplatin induced hearing loss, or ototoxicity in children.

We continue to focus efforts on the development of STS.

We have licensed from Oregon Health & Science University ("OHSU") intellectual property rights for the use of STS as a chemoprotectant, and are developing STS 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 STS can effectively reduce the incidence of hearing loss caused by platinum-based anti-cancer agents. We have received Orphan Drug Designation in the United States for the use of STS in the prevention of platinum-induced ototoxicity in pediatric patients.

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. 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. 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.

Investigators at OHSU have conducted Phase I and Phase II studies which have shown STS reduces the hearing loss associated with platinum-based chemotherapy. In one study at OHSU, the need for hearing aids to correct high frequency hearing loss was reduced from about 50% to less than 5%.

Patient enrollment for STS has completed in both COG ACCL0431 and SIOPEL 6, which are both Phase III trials of STS. The preliminary results of COG ACCL0431 were presented in the second quarter of 2014 and the final results were published in *Lancet Oncology* in December 2016. The preliminary safety and efficacy results on SIOPEL 6 were presented during the second quarter of 2016 at ASCO.

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. The Company generated a net loss of \$2.8 million for the year ended December 31, 2016 and had a non-cash gain on derivative liabilities of \$0.05 million. We generated a net loss of approximately \$0.7 million for the year ended December 31, 2015 (there was a non-cash gain on the change in derivative liability of \$1.2 million). As of December 31, 2016, our accumulated deficit was approximately \$114.3 million.

As a result of our limited financial resources we have postponed or terminated many of our previously planned or ongoing clinical development programs. We continue to pursue various strategic alternatives, including collaborations with other pharmaceutical and biotechnology companies. As a result, there is uncertainty of our ability to continue as a going concern. Our projections of our capital requirements are subject to substantial uncertainty. More capital than we anticipated may be required thereafter. To finance our continuing operations, we will 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. Given current economic conditions, we might 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 the implementation of further cost reduction measures. Our research and development expenses, which include expenses associated with our clinical trials, drug manufacturing to support clinical programs, salaries for research and development personnel, 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 16, 2016, we completed a \$5.0 million equity financing for general working capital. Further development of STS will require additional capital.

Results of Operations

Fiscal 2016 versus Fiscal 2015

| In thousands of U.S. Dollars | Fiscal Year Ended December 31, 2016 | % | Fiscal year Ended December 31, 2015 | % | Increase (Decrease) |
|--------------------------------|--|------|--|------|------------------------|
| Revenue | \$ - | | \$ - | | \$ - |
| Operating expenses: | | | | | |
| Research and development | 472 | 16% | 256 | 14% | 216 |
| General and administration | 2,399 | 84% | 1,634 | 86% | 765 |
| Total operating expense | 2,871 | 100% | 1,890 | 100% | 981 |
| Other income | 48 | | 1,237 | | (1,189) |
| Sale of Eniluracil | 40 | | - | | 40 |
| Other loss | (14) | | (9) | | (5) |
| Interest income and other, net | 8 | | 3 | | 5 |
| Net income (loss) | \$ (2,789) | | \$ (659) | | \$ (2,130) |

- Research and development expenses were higher in fiscal 2016, as compared to fiscal 2015 primarily due to drug manufacturing activities related to the preparation for registration batches upon release of the study results from SIOPEL 6 in late 2017.
- The \$0.80 million increase in general and administrative expenses are attributed to a rise in compensation to officers, directors and key contract employees. Most of this increase relates to non-cash equity based compensation that was granted and vested during the year. Of the \$0.70 million issued in equity based compensation, \$0.35 million of that relates to expense recognized with extending the expiration dates of existing options issued to executives and directors. The rest relates to increases in remuneration paid to officers and directors as the Company moved to bring its compensation for key individuals in line with industry benchmarks.
- Other income fell by \$1.2 million as a result of the expiration of all remaining derivative warrants carried on the books. The company has a very small number of derivative options outstanding. Changes in the valuation associated with these options are not expected to have a significant impact on the Company's financial statements for the remaining life of these derivatives. The weighted average term of all remaining derivative liabilities is 1.08 years.
- The Company completed the sale of certain intellectual property, data and other assets related to Eniluracil and Adh-1 technologies and development programs for a gain of \$40.
- Interest income increased slightly in fiscal 2016, as compared to 2015 due to a higher average cash balance for the comparable periods.

Quarterly Information

The following table presents selected consolidated financial data for each of the last eight quarters through December 31, 2016, as prepared under 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, 2015 | 177 | 0.02 | 0.01 |
| June 30, 2015 | (173) | (0.02) | (0.02) |
| September 30, 2015 | (123) | (0.01) | (0.01) |
| December 31, 2015 | (540) | (0.05) | (0.05) |
| March 31, 2016 | (420) | (0.04) | (0.04) |
| June 30, 2016 | (724) | (0.06) | (0.06) |
| September 30, 2016 | (502) | (0.04) | (0.04) |
| December 31, 2016 | (1,143) | (0.08) | (0.08) |

Quarter ended December 31, 2016 versus 2015

| In thousands of U.S. Dollars | Quarter Ended | | Quarter Ended | | Increase (Decrease) |
|--------------------------------|-------------------|------|-------------------|------|------------------------|
| | December 31, 2016 | % | December 31, 2015 | % | |
| Revenue | \$ - | | \$ - | | \$ - |
| Operating expenses: | | | | | |
| Research and development | 174 | 15% | 71 | 13% | 103 |
| General and administration | 972 | 85% | 480 | 87% | 492 |
| Total operating expense | 1,146 | 100% | 551 | 100% | 595 |
| Other income | 1 | | 11 | | (10) |
| Interest income and other, net | 2 | | - | | 2 |
| Net (loss) | \$ (1,143) | | \$ (540) | | \$ (603) |

The Company reported a net loss from operations of \$1.1 million (which excludes an immaterial non-cash gain on derivatives) for the three months ended December 31, 2016, compared to a net loss from operations of \$0.5 million (excluding the non-cash gain of \$0.01 million) in 2015. Research and development expenses totaled \$0.2 million for the three months ended December 31, 2016, as compared to a \$0.07 million in the same period in 2015 as the Company increased drug manufacturing expense. General and administrative expenses increased by \$0.5 million in the three months ended December 31, 2016, as compared to the same period in 2015. The increase relates to non-cash equity based compensation for directors and officers, the extension of expiration dates on various prior option issuances to officers and directors and increased remuneration for officers and directors.

| | As at December 31, 2016 | As at December 31, 2015 |
|---|----------------------------|----------------------------|
| Selected Asset and Liability Data (thousands): | | |
| Cash and equivalents | \$ 3,926 | \$ 942 |
| Other current assets | 46 | 77 |
| Current liabilities excluding derivative liability | 369 | 389 |
| Derivative warrant liability | 33 | 82 |
| Working capital [current assets – current liabilities excluding derivative liability] | 3,603 | 630 |
| Selected Equity: | | |
| Common stock | \$ 74,515 | \$ 69,401 |
| Accumulated deficit | (114,322) | (111,533) |
| Stockholders' equity | 3,570 | 548 |

Liquidity and Capital Resources

- The \$3.0 million increase in cash and cash equivalents between December 31, 2016 and December 31, 2015 is due to the \$5.0 million equity financing completed in May 2016, and the \$0.1 million cash proceeds from the exercise of 67 warrants offset by clinical trial expenses related to our Phase III study of STS, the increase in regulatory and manufacturing activities for STS and our general and administrative expenses.
- The decrease in other current assets between December 31, 2015 and December 31, 2016 relates to a reduction in pre-paid Director's and Officer's Insurance over the prior year.
- Current liabilities decreased primarily due to a write-off of old payables which had become statute barred. The Company wrote off approximately \$0.08 million of payables which has become statute barred.
- Working capital increased between December 31, 2016 and December 31, 2015 by \$2.9 million. The increase was a result of a private placement funding in addition to various warrant and option exercises in 2016. These cash inflows were offset by cash expenditures related to our clinical trials, the commercial development of STS and general and administrative expenses.

| Selected Cash Flow Data (dollars and shares in thousands) | Year Ended December | |
|--|---------------------|------------|
| | 31, 2016 | 31, 2015 |
| Net cash used in operating activities | \$ (2,124) | \$ (1,862) |
| Net cash provided from financing activities | 5,108 | 497 |
| Net cash provided from investing activities | - | - |
| Net cash flow | \$ 2,984 | \$ (1,365) |
| Number of common shares outstanding | 13,643 | 10,940 |

The net cash flow used in operating activities for the year ended December 31, 2016 was approximately \$2.1 million as compared to \$1.9 million in 2015. This increase relates to the commercial development of STS.

On September 5, 2013, we announced that we intended to primarily focus our remaining financial resources on the development of STS. 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 \$3.86 million as of December 31, 2016.

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, 2016, we had approximately \$0.06 million in our cash accounts and \$3.86 million in our money market accounts. We have not experienced any loss or write down of our money market investments since the inception of the Company.

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 at 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, 2016 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 year ended December 31, 2016 and fiscal year ended December 31, 2015 we used the following weighted average assumptions:

| | Year Ended December 31, 2016 | Year Ended December 31, 2015 |
|-------------------------|---------------------------------|---------------------------------|
| Expected dividend | 0% | 0% |
| Risk-free interest rate | 1.27 – 2.25% | 1.89 – 2.02% |
| Expected volatility | 134 – 137% | 127 – 153% |
| Expected life | 7 years | 7 years |

Common stock and warrants

Common stock is 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 stock and recorded on the consolidated statements of stockholders' equity as additional paid-in capital.

Derivative Instruments

The Company applies ASC Topic 815-40, "Derivatives and Hedging" (ASC 815-40). One of the conclusions reached under ASC 815-40 was that an equity-linked financial instrument would not be considered indexed to the entity's own stock if the strike price is denominated in a currency other than the issuer's functional currency. The conclusion reached under ASC 815-40 clarified the accounting treatment for these and certain other financial instruments. ASC 815-40 specifies that a contract will not be treated as a derivative if it meets the following conditions: (a) indexed to the Company's own stock; and (b) classified in stockholders' equity in the Company's statement of financial position. The Company's outstanding warrants denominated in Canadian dollars are not considered to be indexed to its own stock because the exercise price is denominated in Canadian dollars and the Company's functional currency is United States dollars. Therefore, these warrants have been treated as derivative financial instruments and recorded at their fair value as a liability. All other outstanding convertible instruments are considered to be indexed to the Company's stock, because their exercise price is denominated in the same currency as the Company's functional currency, and are included in stockholders' equity.

The Company's derivative instruments include options to purchase 40 common shares, the exercise prices for which are denominated in a currency other than the Company's functional currency, as follows:

- Contractor options to purchase 21 common shares exercisable at CAD\$1.89 per whole common share that expire on November 19, 2017;
- Contractor options to purchase 17 common shares exercisable at CAD\$1.62 per whole common share that expire on April 4, 2018;
- Contractor options to purchase 2 common shares exercisable at CAD\$2.43 per whole common share that expire on May 18, 2018.

These options have been recorded at their fair value as a liability at issuance and will continue to be re-measured at fair value as a liability at each subsequent balance sheet date. Any change in value between reporting periods will be recorded as unrealized gain/(loss). These options will continue to be reported as a liability until such time as they are exercised, forfeited or expire. The fair value of these options is estimated using the Black-Scholes option-pricing model.

| Derivative Warrants/Options | Derivative Value at | | Gain on Derivative | |
|------------------------------------|---------------------|-------------------|------------------------------|------------------------------|
| | December 31, 2016 | December 31, 2015 | Instrument December 31, 2016 | Instrument December 31, 2015 |
| Warrants expiring April 30, 2015 | - | - | - | 411 |
| Warrants expiring March 29, 2016 | - | 41 | 41 | 748 |
| Options (various expiration dates) | 33 | 41 | 7 | 78 |
| Total | 33 | 82 | 48 | 1,237 |

The value of the derivative liability presented on the balance sheet has typically been influenced by changes in the underlying share price of the Company.

Outstanding Share Information

Our outstanding comparative share data at December 31, 2016 and December 31, 2015 is as follows (in thousands):

| Outstanding Share Type | December 31, 2016 | December 31, 2015 |
|------------------------------------|-------------------|-------------------|
| Common shares | 13,643 | 10,940 |
| Warrants to purchase common shares | 1,383 | 2,595 |
| Options to purchase common shares | 2,427 | 2,417 |
| Total | 17,453 | 15,952 |

Newly Adopted and Recent Accounting Pronouncements

In August 2014, the FASB issued Accounting Standards Update (“ASU”) 2014-15 requiring an entity’s management to evaluate whether there are conditions or events, considered in aggregate, that raise substantial doubt about an entity’s ability to continue as a going concern within one year after the date that the financial statements are issued (or within one year after the date that the financial statements are available to be issued when applicable). The amendments in this update are effective for the annual period ending after December 15, 2016, and for annual periods and interim periods thereafter. Early application is permitted. The adoption of this standard did not have a material impact on our financial statements.

In June 2014, the FASB issued ASU 2014-12, “Compensation – Stock Compensation (Topic 718): Accounting for Share-Based Payments When the Terms of an Award Provide That a Performance Target Could Be Achieved after the Requisite Service Period”. The amended guidance requires that a performance target that affects vesting and that could be achieved after the requisite service period should be treated as a performance condition. The amendments are effective for annual periods and interim periods within those annual periods beginning after December 15, 2015. The adoption of this standard did not have a material impact on our financial statements.

In May 2014, the FASB issued ASU 2014-9, Revenue from Contracts with Customers (Topic 606), to clarify the principles for recognizing revenue. This update provides a comprehensive new revenue recognition model that requires revenue to be recognized in a manner to depict the transfer of goods or services to a customer at an amount that reflects the consideration expected to be received in exchange for those goods or services. In August 2015, the FASB issued ASU No. 2015-14, Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date, which delayed the effective date of the new standard from January 1, 2017 to January 1, 2018. The FASB also agreed to allow entities to choose to adopt the standard as of the original effective date. In March 2016, the FASB issued ASU No. 2016-08, Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations, which clarifies the implementation guidance on principal versus agent considerations. In April 2016, the FASB issued ASU No. 2016-10, Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing, which clarifies certain aspects of identifying performance obligations and licensing implementation guidance. In May 2016, the FASB issued ASU No. 2016-12, Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients related to disclosures of remaining performance obligations, as well as other amendments to guidance on collectibility, non-cash consideration and the presentation of sales and other similar taxes collected from customers. These standards have the same effective date and transition date of January 1, 2018. The new revenue standard allows for either full retrospective or modified retrospective application. We are currently evaluating the timing of its adoption, the transition method to apply and the impact that this guidance will have on our financial statements and related disclosures.

In November 2015, the FASB issued ASU 2015-17, *Balance Sheet Classification of Deferred Taxes*, which simplifies the financial statement presentation of deferred income taxes by requiring that deferred income tax assets and liabilities be classified as noncurrent within a classified statement of financial position. Adoption and implementation of the guidance is not required by the Company until issuance of fiscal 2018 first quarter financial statements. The Company does not believe adoption of this guidance will have a material impact on its financial statements.

In February 2016, the FASB issued ASU 2016-02, *Leases*, which amends the accounting guidance related to leases. These changes, which are designed to increase transparency and comparability among organizations for both lessees and lessors, include, among other things, requiring recognition of lease assets and liabilities on the balance sheet and disclosing key information about leasing arrangements. Adoption and implementation of the guidance is not required by the Company until the beginning of fiscal 2020, although early adoption is permitted. The Company has not yet completed its assessment of the impact that adoption of this guidance will have on its financial statements.

In March 2016, the FASB issued ASU 2016-09, *Improvements to Employee Share-Based Payment Accounting*, which amends the accounting for share-based payment transactions. These changes, which are designed for simplification, involve several aspects of the accounting for share-based transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. Adoption and implementation of the guidance is not required by the Company until the beginning of fiscal 2018, although early adoption is permitted. The Company has not yet completed its assessment of the impact that adoption of this guidance will have on its financial statements.

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, 2016, we had \$3.86 million in money market investments as compared to \$0.9 million at December 31, 2015; 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, 2016 and 2015.

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 the main purpose of the Company 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, 2016 the company held approximately fifty-one thousand Canadian dollars.

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 management, with the participation and supervision of our Chief Executive Officer and Chief Financial Officer, is responsible for our disclosure controls and procedures pursuant to Rules 13a-15(e) and 15d-15(e) under the Exchange Act. Disclosure controls and procedures are controls and other procedures that are designed to ensure that information required to be disclosed in our reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified under SEC rules and forms. Disclosure controls and procedures include controls and procedures designed to ensure that information required to be disclosed in our reports filed under the Exchange Act is accumulated and communicated to our principal executive officer and our principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

Our management, including the Chief Executive Officer and the Chief Financial Officer, carried out an evaluation of the effectiveness of our disclosure controls and procedures as of December 31, 2016. Based on this evaluation, our management concluded that as of December 31, 2016 these disclosure controls and procedures were not effective at the reasonable assurance level as a result of the material weaknesses in our internal control over financial reporting, which are described below. As discussed below, our internal control over financial reporting is an integral part of our disclosure controls and procedures.

Management's Annual Report on Internal Control over Financial Reporting

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

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

Because of inherent limitations, no matter how well designed and operated, internal control over financial reporting may not prevent or detect misstatements and can only provide reasonable assurance of achieving the desired control objectives. In addition, the design of internal control over financial reporting must reflect the fact that there are resource constraints and that management is required to apply its judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Our Chief Executive Officer and Chief Financial Officer have performed an evaluation of our internal control over financial reporting under the framework in *Internal Control-Integrated Framework (2013)*, issued by the Committee of Sponsoring Organizations of the Treadway Commission. The objective of this assessment was to determine whether our internal control over financial reporting was effective at December 31, 2016. Based on the results of this evaluation, we have concluded that our internal control over financial reporting was not effective at December 31, 2016 as a result of having identified two material weaknesses in our internal control over financial reporting, as described in further detail below.

Our management has identified a control deficiency due to not maintaining an effective control environment, which is the foundation for the discipline and structure necessary for effective internal control over financial reporting, as evidenced by: (i) a lack of segregation of duties over individuals responsible for certain key control activities; (ii) an insufficient number of personnel appropriately qualified to perform control monitoring activities, including the recognition of the risks and complexities of transactions; and (iii) control activities that are not designed to respond to the risks identified. This control deficiency could result in a misstatement of balance sheet, income and cash flow statement accounts in our interim or annual financial statements that would not be detected. Accordingly, management has determined that this control deficiency constitutes a material weakness.

Our management has also identified another control deficiency that it believes constitutes a material weakness in our control over financial reporting. We did not maintain sufficient personnel with an appropriate level of technical accounting knowledge, experience, and training in the application of U.S. GAAP with regards to unusual transactions commensurate with our complexity and our financial accounting and reporting requirements. This control deficiency could result in a misstatement of the financial statements including disclosure that would not be prevented or detected on a timely basis.

We believe the control deficiencies described herein, individually and when aggregated, represent material weaknesses in our internal control over financial reporting at December 31, 2016 since such deficiencies result in a reasonable possibility that a material misstatement in our annual or interim consolidated financial statements may not be prevented or detected on a timely basis by our internal controls.

These material weaknesses did not result in any material misstatements to the financial statements. However, these material weaknesses could result in misstatement of the aforementioned account balances or disclosures that would result in material misstatements to the annual or interim consolidated financial statements that would not be prevented or detected.

Management's Remediation Activities

Since the identification of the material weaknesses in 2016, management has begun the evaluation process associated with the remediation of these weaknesses and will continue to take measures, including engaging service providers that may be necessary and advisable to address these weaknesses. In addition, under the direction of the Audit Committee of the Board of Directors, management will continue to review and make necessary changes to the overall design of the Company's internal control environment, as well as to policies and procedures to improve the overall effectiveness of internal control over financial reporting of the Company.

Changes in Internal Control over Financial Reporting

There were no changes to the Company's internal control over financial reporting during the fourth quarter of 2016 that materially affected, or are reasonably likely to materially affect, the Company's 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.

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.

The Corporation has an Audit Committee, a Compensation Committee, and a Governance Committee. The current members of such committees are noted below:

| Name and Province/State and Country of Residence, Position | Current Principal Occupation and Principal Occupation For Previous Five Years | Director Since | Age |
|--|---|----------------|-----|
| Robert Andrade, Texas USA Chief Financial Officer | CFO of Fennec Pharmaceuticals; previously senior analyst Magnetar Capital; previously Portfolio Manager Millennium Partners | N/A | 42 |
| Chris A. Rallis, North Carolina, USA Director ⁽¹⁾⁽²⁾ | Executive in-residence at Pappas Ventures; previously, CEO of ImmunoBiosciences | August 2011 | 63 |
| Rostislav Raykov, New Jersey, USA Chief Executive Officer, Director | CEO of Fennec Pharmaceuticals Inc.; Co-Founder and Manager, DCML LLC; previously Portfolio Manager Alchem Partners; previously Portfolio Manager John Levin & Company | July 2009 | 41 |
| Marco Brughera, Milano, Italy Director ⁽²⁾⁽³⁾ | CEO Sigma-Tau Rare Diseases Limited; President of Sigma-Tau Pharmaceuticals; previously Vice President of Preclinical Development at Nerviano Medical Science. | August, 2016 | 61 |
| Steven D. Skolsky, North Carolina USA Director ⁽⁴⁾ | Senior Vice President, Global Head-Clinical Site Management at Quintiles; previously CEO of Sequoia Pharmaceuticals; previously CEO of Trimeris, Inc. | August 2011 | 61 |
| Adrian J. Haigh, Dublin, Ireland Director ⁽¹⁾⁽³⁾ | Senior Vice President and General Manager of EMEA Region at PTC Therapeutics; previously Chief Operating Officer, Gentium GmbH; previously Regional VP Commercial Operations, Biogen Idec | April 2014 | 57 |
| Khalid Islam, Zug, Switzerland Chairman of Board, Director ⁽¹⁾⁽²⁾⁽³⁾ | Founder/co-founder Sirius Healthcare Partners GmbH; previously Chairman and CEO of Gentium S.p.A.; previously CEO of Arpida AG | April 2014 | 61 |

(1) Member of the Audit Committee

(2) Member of the Compensation Committee

(3) Member of the Governance Committee

(4) Member did not stand for re-election to the board at June 8, 2016 Annual Shareholder Meeting

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 senior analyst at Magnetar Capital, a portfolio manager for Millennium Partners and a senior analyst at Caxton Associates. 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. Chris A. Rallis has served as a director of Fennec since August 2011. Mr. Rallis has been an executive-in-residence at Pappas Ventures, 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 Ventures, and as a consultant for Duke University and Panacos Pharmaceuticals, Inc. Mr. Rallis is the former President and Chief Operating Officer 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 boards of Aeolus Pharmaceuticals, a biopharmaceutical company located in Mission Viejo, California and Tenax Therapeutics, Inc., a biopharmaceutical company located in Morrisville, 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.

Rostislav Raykov

Mr. Raykov has served as a director of Fennec since July 2009 and as Chief Executive Officer since July 2009. Since May 2007, Mr. Raykov has also been a General Partner at DCML, a private investment partnership. Prior to DCML, 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 Company as it has developed within the drug development industry and, as such, is able to provide the Company with unique insight and guidance.

Marco Brughera

Since January 2011, Dr. Brughera 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 Accelerera, 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 Solgenix and Lee's Pharmaceutical and until early 2014 was a member of the Board of Gentium SpA. Dr. Brughera earned his degree in veterinary medicine from the University of Milan and is a European Registered Toxicologist.

Steven D. Skolsky

Mr. Steven Skolsky is senior vice president and global head of Site Management at Quintiles. In this role, Mr. Skolsky leads a group of more than 5,000 employees globally who are at the core of the company's Clinical Development organization - monitoring clinical conduct at research sites as well as collecting and managing data from patients in clinical trials around the world. Site Management is responsible for deepening and enhancing Quintiles' relationships with investigators within a site-centric operating model. This team is also responsible for the clinical execution of projects via the Clinical Monitoring and Clinical Leadership teams. Site Management will focus on implementing a comprehensive site management strategy to accelerate site start-up, optimize recruitment from Quintiles sites and maintain delivery of projects. Before joining Quintiles, this 30-year veteran of the biopharmaceutical industry held the posts of president and CEO of Sequoia Pharmaceuticals and CEO of Trimeris, Inc. These positions followed some 20 years at GlaxoSmithKline (GSK) in a range of senior leadership roles, including senior vice president of Global Clinical Development and Product Strategy and managing director of GSK's operations in Australia and New Zealand. He is a current Board Director for Basilea Pharmaceutica. Mr. Skolsky earned his Bachelor of Arts degree in Biology from the University of North Carolina at Chapel Hill. As a result of these and other professional experiences, Mr. Skolsky possesses particular healthcare industry knowledge and experience which strengthens the Board's collective qualifications, skills, and experience.

Adrian J. Haigh

Mr. Adrian Haigh has been Senior Vice President and General Manager of EMEA Region at PTC Therapeutics, Inc. since September 2014. Previously Mr. Haigh served as Senior Vice President, Commercial Operations and Chief Operating Officer of Gentium GmbH since March 2011. Prior to joining Gentium, Mr. Haigh served as Regional Vice President, Commercial Operations at Biogen Idec where he managed several affiliates and also the global distributor business and prior to that was the General Manager 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 and a Director at Arch Biopartners Inc. since August 21, 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. Khalid Islam was the Chairman and CEO of Gentium S.p.A. (a Nasdaq-listed company; 2009-2014) where he led the transition from a loss-making 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. 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). He serves on the board of Karolinska Development (Sweden), MolMed S.p.A. (Italy) and Immunomedics Inc. (IMMU) all of which are traded publicly, and the private company OxThera (Sweden). In the past, he has served as Chairman of the Board of Directors of Pcovery Aps (Copenhagen), Adenium Aps (Copenhagen) and C10 Pharma AS (Oslo).

Audit Committee

On behalf of the Board, the Audit Committee of the Board retains, oversees and evaluates Fennec's independent auditors, reviews the financial reports and other financial information provided by Fennec, 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 Fennec's 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. 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, Fennec's 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 officers, directors and employees of Fennec. Fennec is 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 personnel of Fennec 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. Fennec undertakes to provide to any person without charge, upon request, a copy of such 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 Executive Officers, for the fiscal years ended December 31, 2016 and December 31, 2015 to our Chief Executive Officer and our Chief Financial Officer.

| Name and Principal Position | Year | Salary (\$) | Bonus (\$) | Option Awards (\$) ⁽¹⁾ | Total (\$) |
|-----------------------------|------|-------------|------------|-----------------------------------|------------|
| Rostislav Raykov, CEO | 2016 | 215,000 | - | 156,885 | 371,885 |
| | 2015 | 180,000 | - | - | 180,000 |
| Robert Andrade, CFO | 2016 | 177,500 | - | 268,933 | 446,433 |
| | 2015 | 110,791 | - | - | 110,791 |

- (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 and Mr. Andrade of 150,000 and 75,000 options, respectively, on July 5, 2016, at an exercise price of \$2.45 per common share, respectively, and will expire on July 5, 2023, respectively. One-third of these options shall vest as of grant the grant date and be exercisable one year after the grant date (the "Vesting Commencement Date"). The remaining two-thirds of the options shall vest monthly at a rate of 1/36th 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 Fennec since July 2009. Pursuant to an employment agreement dated May 3, 2010 between Mr. Raykov and Fennec, Mr. Raykov is employed as Fennec's 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 stock estimated by us to be outstanding upon completion of the 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.

Robert Andrade

Mr. Andrade has been employed by Fennec since November 2015. Mr. Andrade is employed as Fennec's Chief Financial Officer. Pursuant to an employment agreement dated November 13, 2015, Mr. Andrade (a) receives an initial annual salary in the amount of \$165,000, and (b) may receive annual bonuses at the sole discretion of the Board. In addition, conditioned upon the approval of Fennec's shareholders, Fennec will extend Mr. Andrade's existing options to their original expiry date of seven years from issuance. 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.

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

In the employment agreements for each of Mr. Andrade and Mr. Raykov “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 the Employee’s 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 the Company’s business.

Equity Grants, Exercises and Holdings

The following table sets forth information concerning the number and value of unexercised options held by each Named Executive Officer as of December 31, 2016. All executive awards, with the exception of those expiring 07/05/2023, vest and are exercisable immediately. The current Stock Option Plan provides for grants denominated in US and CAD dollars.

| Name | Number of Options | | Option Exercise Price | Expiration Date | |
|------------------|-------------------|-------------|-----------------------|-----------------|------------|
| | Granted | Exercisable | | | |
| Rostislav Raykov | 150,000 | - | USD\$ | 2.45 | 07/05/2023 |
| | 25,000 | 25,000 | USD\$ | 2.69 | 12/31/2021 |
| | 83,333 | 83,333 | USD\$ | 1.59 | 01/24/2021 |
| | 16,666 | 16,666 | USD\$ | 0.72 | 08/23/2020 |
| | 50,000 | 50,000 | USD\$ | 1.05 | 11/20/2019 |
| | 17,050 | 17,050 | CAD\$ | 1.89 | 08/18/2018 |
| | 323,961 | 323,961 | CAD\$ | 2.43 | 08/18/2017 |
| Robert Andrade | 75,000 | - | USD\$ | 2.45 | 07/05/2023 |
| | 17,050 | 17,050 | CAD\$ | 1.89 | 08/18/2018 |
| | 323,961 | 323,961 | CAD\$ | 2.43 | 08/18/2017 |

Termination Benefits

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 of \$250,000. 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 of \$95,000.

Compensation of Directors

Director Compensation Table

The following table summarizes the compensation earned by the Company's non-executive directors for the year ended December 31, 2016.

| Name | Fees paid in Cash | Stock Awards | Option Awards ⁽¹⁾⁽²⁾ | Total |
|--------------|-------------------|--------------|---------------------------------|-------------------|
| Dr. Islam | 100,000 | - | 46,484 | 146,484 |
| Mr. Brughera | 5,000 | - | 70,740 | 75,740 |
| Mr. Haigh | 27,500 | - | 23,242 | 50,742 |
| Mr. Rallis | 33,750 | - | 32,538 | 66,288 |
| Mr. Skolsky | 10,000 | - | 9,296 | 19,296 |
| Total | \$ 176,250 | \$ - | \$ 182,300 | \$ 358,550 |

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

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

| Name | Date of Grant | Number of Options Granted | Option Exercise Price \$USD |
|--------------|-------------------|---------------------------|-----------------------------|
| Mr. Rallis | June 6, 2016 | 14,344 | 2.44 |
| Mr. Skolsky | June 6, 2016 | 4,098 | 2.44 |
| Dr. Islam | June 6, 2016 | 20,492 | 2.44 |
| Mr. Haigh | June 6, 2016 | 10,246 | 2.44 |
| Mr. Brughera | December 30, 2016 | 35,545 | 2.11 |
| Total | | 84,725 | |

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 during the past year; (2) to provide long-term incentives for future efforts since the value of the options is directly dependent on the market valuation of the Company; 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. Fenec does not require its non-executive directors to own a specific amount of common stock.

Each of Chris A. Rallis and Steven D. Skolsky has entered into an Independent Director Agreement with the Company, dated as of August 25, 2011, which provides for (i) cash compensation in the form of \$2,500 per board meeting attended, and (ii) non-cash compensation in the form of a grant of options to purchase shares of the Company's common stock having an aggregate value equal to \$5,000 (with price per share and exercise price based on the value of the Company's common stock as of the date of grant) per board meeting attended. The options immediately vest when granted and are otherwise subject to the terms and conditions of the Company's 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 shares of our common stock beneficially owned as of March 17, 2017 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 the outstanding shares of our common stock. 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 Fenec Pharmaceuticals Inc., 68 TW Alexander Drive, PO Box 13628, Research Triangle Park, North Carolina 27709.

| Name | Common Stock | Common Stock Options Exercisable Within 60 Days | Common Stock Purchase Warrants Exercisable Within 60 Days | Total Stock and Stock Based Holdings ⁽¹⁾ | % Ownership ⁽¹⁾ |
|--|---------------|---|---|---|----------------------------|
| Adrian J. Haigh | - | 153,579 | - | 153,579 | 1.11% |
| Dr. Khalid Islam | - | 213,825 | - | 213,825 | 1.54% |
| Robert Andrade | - | 416,011 | - | 416,011 | 2.96% |
| Marco Brughera | - | 35,545 | - | 35,545 | 0.26% |
| Chris A. Rallis | - | 111,850 | - | 111,850 | 0.81% |
| Rostislav Raykov | 40,740 | 666,010 | - | 706,750 | 4.94% |
| Steven D. Skolsky | - | 88,701 | - | 88,701 | 0.65% |
| All Officers and Directors as a Group | 40,740 | 1,685,521 | - | 1,726,261 | 11.26% |
| Southpoint Capital Advisors, LP. ⁽²⁾ | 3,997,214 | - | - | 3,997,214 | 29.30% |
| Essetifin SpA ⁽³⁾ | 2,631,579 | - | - | 2,631,579 | 19.29% |
| 683 Capital Management, LLC. ⁽⁴⁾ | 778,729 | - | 120,834 | 899,563 | 6.54% |
| Robert Butts | 768,592 | - | - | 768,592 | 5.63% |
| Manchester Management Company, LLC. ⁽⁵⁾ | 999,999 | - | 999,999 | 1,999,998 | 13.66% |

(1) For purposes of this table "beneficial ownership" is determined in accordance with Rule 13d-3 under the Securities Exchange Act of 1934, pursuant to which a person or group of persons is deemed to have "beneficial ownership" of any shares of common stock that such person or group has the right to acquire within 60 days after March 17, 2017. For purposes of computing the percentage of outstanding shares of common stock 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 March 17, 2017 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 March 17, 2017, there were 13,642,567 shares of our common stock issued and outstanding.

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

(3) Essetifin SpA, Via Sudafrica 20, Rome, Italy 00144. Mario Altali holds dispositive power over the shares owned by Essetifin SpA.

(4) 683 Capital Management, LLC, 595 Madison Avenue, 17th Floor, New York, New York 10025. Ari Zweiman holds dispositive power over the shares owned by 683 Capital Management LLC.

(5) Manchester Management Company, LLC, 131 Charles Street, 1st Floor, Boston Massachusetts 02114. Includes 1,250,000 shares owned by Manchester Explorer, L.P. and 416,666 shares owned by JEB Partners, L.P. Manchester Management holds dispositive power over the shares held by Manchester Explorer, L.P. and JEB Partners, L.P. Jeb Besser and Morgan Frank hold shared dispositive power over the shares held by Manchester Management Company, LLC. Additionally, Jeb Besser owns 166,666 shares for which he has sole dispositive power and Morgan Frank owns 166,666 shares for which he has sole dispositive power.

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, 2016 (share amounts are in thousands):

| Plan Category | (a) | (b) | | (c) |
|--|--|---|----------|---|
| | Number of securities to be issued upon exercise of outstanding options warrants and rights (*) | Weighted-average exercise price of outstanding options, warrants and rights | | Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in Column (a)) |
| Equity compensation plans approved by security holders | 1,428 | USD \$ | 1.93 | 953 |
| | 999 | CAD \$ | 2.38 | |
| Total | 2,427 | | - | 953 |

* The Company's current stock option plans allow for the issuance of stock options denominated in both U.S. dollars and Canadian dollars. This table presents the number and weighted-average exercise price of outstanding options by the currency associated with the original grants. At December 31, 2016 we had 1,458 stock options denominated in U.S. dollars with a weighted-average exercise price of \$1.93 and 999 stock options denominated in CAD dollars with a weighted-average exercise price of CAD\$2.38. At December 31, 2016, we had 953 stock options available for future issuance.

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

Related Party Transactions

There were no related party transactions during the year ended December 31, 2016.

Director Independence

The Board of Directors is composed of a majority of independent directors. The Board applies the definition of independence found in the rules of the SEC and in Canadian National Instrument 58-101 and National Policy 58-201. The Board has determined that Mr. Brughera, Haigh, Islam, Rallis and Skolsky are "independent." Mr. Raykov, Chief Executive Officer of the Company is considered to have a material relationship with the Company by virtue of his executive officer position and is therefore not independent. Fennec is of the view that the composition of its 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, Deloitte LLP in fiscal year 2016 and 2015:

| | Fiscal Year 2016 | Fiscal Year 2015 |
|-----------------------------------|---------------------|---------------------|
| Audit Fees ⁽¹⁾ | 65,902 | 92,035 |
| Audit-Related Fees ⁽²⁾ | - | - |
| Tax Fees ⁽³⁾ | 10,026 | 4,845 |
| All Other Fees ⁽⁴⁾ | 1,370 | 8,104 |
| Total | \$ 77,298 | \$ 104,984 |

(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* include fees for periodic tax consultations and compliance services in various local, regional and national tax jurisdictions.

(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 the engagement by the registrant, the Audit Committee approved all of the services performed by Deloitte LLP as required by SEC regulation.

PART IV

Item 15. Exhibits, 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 |
| 10.2 | Development and License Agreement dated July 14, 2005 between Fennec Pharmaceuticals Inc. and Glaxo Group Limited** | Exhibit 4.30 to Form 6-K of the Company filed July 22, 2005 |
| 10.3 | Amendment No. 1 to Development and License Agreement dated December 20, 2005 between Glaxo Group Limited and Fennec Pharmaceuticals Inc.** | Exhibit 4.36 to the Form 20-F Annual Report (No. 001-32295) of Fennec for the fiscal year ended December 31, 2005, filed on March 31, 2006 |
| 10.4 | Amendment No. 2 to Development and License Agreement dated June 23, 2006 between Glaxo Group Limited and Fennec Pharmaceuticals Inc.** | Exhibit 4.41 to Form 6-K of the Company filed August 9, 2006 |
| 10.5 | Amendment No. 3 to Development and License Agreement dated January 17, 2007 between Fennec Pharmaceuticals Inc. and Glaxo Group Limited | Exhibit 4.42 to Form 6-K of the Company filed January 19, 2007 |
| 10.6 | Amendment No. 4 to Development and License Agreement dated May 23, 2007 between Fennec Pharmaceuticals Inc. and Glaxo Group Limited | Exhibit 10.1 to Form 8-K of the Company filed June 19, 2007 |
| 10.7 | Amended and Restated Stock Option Plan | Exhibit 10.19 to Form 10-K of the Company filed March 28, 2008 |
| 10.11 | 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 on May 14, 2010 |
| 10.13 | Executive Employment Agreement dated May 3, 2010 by and between Fennec and Dr. Thomas Spector* | Exhibit 10.30 to the Form 10-Q of the Company filed on May 14, 2010 |
| 10.14 | Form of Independent Director Agreement, dated May 3, 2010 | Exhibit 10.31 to the Form 10-Q of the Company filed on May 14, 2010 |
| 10.19 | Subscription Agreement, dated November 15, 2013, between the Company, Technologies Inc. and Manchester Management LLC | Exhibit 10.19 to the Form 10K/A of the Company filed on April 2, 2014 |
| 10.20 | Form of Subscription Agreement from December 3, 2014 private placement | Exhibit 10.20 to the Form 10K of the Company filed on March 31, 2015 |

| | | |
|-------|--|---|
| 10.40 | 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 on November 12, 2015 |
| 10.41 | Subscription Agreement, dated April 8, 2016, between Fennec Pharmaceuticals Inc. and Sigma Tau Finanzaria | Exhibit 10.41 to the Form 10-Q of the Company filed on May 12, 2016 |
| 10.42 | 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 on May 12, 2016 |
| 21 | Subsidiaries | Exhibit 8 to the Form 20-F Registration Statement (No. 001-32295) of the Company filed September 17, 2004 |
| 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 | Certification of Chief Financial Officer of the Company in accordance with Section 302 of the Sarbanes-Oxley Act of 2002 | 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, 2016 | Filed herewith |
| 101 | Interactive Data File | Filed herewith |

* Indicates a management contract or compensatory plan.

** The Company has received confidential treatment with respect to certain portions of this exhibit. Those portions have been omitted from this exhibit and are filed separately with the U.S. Securities and Exchange Commission.

**FENNEC PHARMACEUTICALS INC.
INDEX TO FINANCIAL STATEMENTS**

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

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

We have audited the accompanying consolidated balance sheets of Fennec Pharmaceuticals Inc. and subsidiaries (the "Company") as of December 31, 2016 and 2015, and the related consolidated statements of operations, shareholders' equity, and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States) and Canadian generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, 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. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Fennec Pharmaceuticals Inc. and subsidiaries as of December 31, 2016 and 2015, and the results of their operations and their cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, the Company incurred a loss from operations of \$2,871,000 during the year ended December 31, 2016 and still has not earned any revenue in its history. At December 31, 2016, the Company had an accumulated deficit of \$114,322,000 and had experienced negative cash flows from operating activities in the amount of \$2,124,000. These circumstances raise substantial doubt about the Company's ability to continue as a going concern. Managements' plans concerning these matters are discussed in Note 1 to the consolidated financial statements. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ Deloitte LLP

Chartered Professional Accountants

Licensed Public Accountants

Ottawa, Canada

March 29, 2017

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

| | <u>December 31,</u> <u>2016</u> | <u>December 31,</u> <u>2015</u> |
|---|------------------------------------|------------------------------------|
| Assets | | |
| Current assets: | | |
| Cash and cash equivalents | \$ 3,926 | \$ 942 |
| Prepaid expenses | 43 | 76 |
| Other current assets | 3 | 1 |
| Total assets | <u>\$ 3,972</u> | <u>\$ 1,019</u> |
| Liabilities and Shareholders' Equity | | |
| Current liabilities: | | |
| Accounts payable | \$ 244 | \$ 297 |
| Accrued liabilities | 125 | 92 |
| Derivative instruments (Note 5) | 33 | 82 |
| Total current liabilities | <u>402</u> | <u>471</u> |
| Total liabilities | <u>402</u> | <u>471</u> |
| Commitments and Contingencies (Note 9) | | |
| Shareholders' equity: | | |
| Common stock, no par value; unlimited shares authorized; 13,643 shares issued and outstanding (2015-10,940) | 74,515 | 69,401 |
| Additional paid-in capital | 42,134 | 41,437 |
| Accumulated deficit | (114,322) | (111,533) |
| Accumulated other comprehensive income | 1,243 | 1,243 |
| Total shareholders' equity | <u>3,570</u> | <u>548</u> |
| Total liabilities and shareholders' equity | <u>\$ 3,972</u> | <u>\$ 1,019</u> |

(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 | |
|---|----------------------|----------------------|
| | December 31, 2016 | December 31, 2015 |
| Revenue | \$ - | \$ - |
| Operating expenses: | | |
| Research and development | 472 | 256 |
| General and administrative | 2,399 | 1,634 |
| Loss from operations | (2,871) | (1,890) |
| Other income/(expense): | | |
| Unrealized gain on derivatives (Note 5) | 48 | 1,237 |
| Sale of Eniluracil (Note 8) | 40 | - |
| Other loss | (14) | (9) |
| Net interest income | 8 | 3 |
| Total other income, net | 82 | 1,231 |
| Net loss | \$ (2,789) | \$ (659) |
| Loss per common share, basic and diluted | \$ (0.22) | \$ (0.06) |
| Weighted-average number of common shares outstanding, basic (Note 3) | 12,765 | 10,827 |

(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 Ended | |
|---|----------------------|----------------------|
| | December 31, 2016 | December 31, 2015 |
| Cash flows (used in) provided by: | | |
| Operating activities: | | |
| Net loss | \$ (2,789) | \$ (659) |
| Adjustments to reconcile net (loss) to net cash used in operating activities: | | |
| Unrealized gain on derivatives | (48) | (1,237) |
| Stock-based compensation - consultants | 88 | - |
| Stock-based compensation - employees | 615 | 97 |
| Changes in operating assets and liabilities: | | |
| Prepaid expenses | 33 | (28) |
| Other assets | (2) | 16 |
| Accounts payable | (54) | (11) |
| Accrued liabilities | 33 | (40) |
| Net cash used in operating activities | <u>(2,124)</u> | <u>(1,862)</u> |
| Investing activity: | | |
| Net cash used in investing activity | <u>-</u> | <u>-</u> |
| Financing activities: | | |
| Issuance of shares, net of issuance costs | 5,000 | - |
| Issuance of shares, options exercise | 6 | 48 |
| Issuance of shares, warrants exercise | 102 | 449 |
| Net cash provided by financing activities | <u>5,108</u> | <u>497</u> |
| Effect of exchange rate on cash and cash equivalents | - | - |
| (Decrease) increase in cash and cash equivalents | <u>2,984</u> | <u>(1,365)</u> |
| Cash and cash equivalents - Beginning of year | 942 | 2,307 |
| Cash and cash equivalents - End of year | <u>\$ 3,926</u> | <u>\$ 942</u> |

(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)

| | Common Stock | | Additional Paid-in Capital | Accumulated Other Comprehensive Income | Accumulated Deficit | Total Stockholders' Equity |
|-------------------------------------|-----------------|------------------|----------------------------------|---|------------------------|----------------------------------|
| | Number (Note 7) | Amount | | | | |
| Balance at December 31, 2014 | 10,593 | \$ 68,656 | \$ 41,588 | \$ 1,243 | \$ (110,874) | \$ 613 |
| Stock options issued to employees | - | - | 97 | - | - | 97 |
| Exercise of stock options | 47 | 82 | (34) | - | - | 48 |
| Exercise of warrants | 300 | 663 | (214) | - | - | 449 |
| Net loss | - | - | - | - | (659) | (659) |
| Balance at December 31, 2015 | 10,940 | 69,401 | 41,437 | 1,243 | (111,533) | 548 |
| Stock options issued to consultants | - | - | 16 | - | - | 16 |
| Stock options issued to employees | - | - | 615 | - | - | 615 |
| Warrants issued to consultants | - | - | 72 | - | - | 72 |
| Exercise of stock options | 4 | 6 | - | - | - | 6 |
| Exercise of warrants | 67 | 108 | (6) | - | - | 102 |
| Rights offering | 2,632 | 5,000 | - | - | - | 5,000 |
| Net loss | - | - | - | - | (2,789) | (2,789) |
| Balance at December 31, 2016 | <u>13,643</u> | <u>\$ 74,515</u> | <u>\$ 42,134</u> | <u>\$ 1,243</u> | <u>\$ (114,322)</u> | <u>\$ 3,570</u> |

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

Fennec Pharmaceuticals Inc.
Notes to the Consolidated Financial Statements
(U.S. dollars and shares in thousands, except per share information)

1. Nature of Business and Going Concern

Fennec Pharmaceuticals Inc. (“Fennec”) 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, 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, 2016 the Company incurred a net loss from operations of \$2,871 and still has not earned any revenue in its history. At December 31, 2016, it had an accumulated deficit of \$114,322 and had experienced negative cash flows from operating activities in the amount of \$2,124.

These circumstances raise substantial doubt about the Company’s ability to continue as a going concern within one year after the issue date of these consolidated financial statements, and substantial doubt as to the ability of the Company to meet its obligations as they come due and, accordingly, the use of accounting principles applicable to a going concern may not be appropriate. The Company is actively seeking to obtain additional funding in the future in order to finance the Company’s business strategy, operations and growth through the issuance of equity, debt or collaboration. 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.

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.

Prior-period adjustment

Common Stock at December 31, 2015 has been increased by \$248 and Additional Paid-in Capital has been decreased by the same amount, to retrospectively correct balance sheet amounts with respect to an immaterial noncash error related to the exercise of warrants and stock options. This error was the result of not moving the value in Additional Paid-in Capital to Common Stock when the warrants and stock options were exercised. This adjustment does not impact anything other than the allocation between Common Stock and Additional Paid-in Capital and has no effect on our loss per share disclosures.

2. Significant Accounting Policies

Basis of presentation

The consolidated financial statements include the accounts of Fennec and of all its wholly-owned subsidiaries. All inter-company 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 derivative warrant liability and 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, 2016, the Company had \$3,926 in cash and money market accounts (2015- \$942). Money market investments typically have minimal risks. The Company has not experienced any loss or write-down of its money market investments.

Financial instruments

Financial instruments recognized on the balance sheets at December 31, 2016 and December 31, 2015 consist of cash and cash equivalents, accounts payable, accrued liabilities and derivative instruments, the carrying values of which, with the exception of the derivative instruments, approximate fair value due to their relatively short time to maturity. The Company does not hold or issue financial instruments for trading. The derivative liabilities are carried at fair value.

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 stock and warrants

The Company has warrants outstanding to purchase common stock that were denominated in both United States dollars ("USD") and Canadian dollars ("CAD"), which resulted in the Company having warrants outstanding that were denominated outside of the Company's U.S. dollar functional currency.

The Company's outstanding warrants denominated in Canadian dollars were not considered to be indexed to the Company's own stock and should therefore be treated as derivative financial instruments and recorded at their fair value as a liability. At December 31, 2016, the derivative liabilities were valued at \$33 (2015-\$82). There was an unrealized gain on derivative liabilities of \$48 (2015-\$1,237) for the year ended December 31, 2016.

Revenue recognition

At this time, the Company does not have any revenue.

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, 2016, 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 shares of common stock outstanding during the year. Diluted net earnings per share is computed using the same method, except the weighted average number of shares of common stock outstanding includes convertible debentures, stock options and warrants, if dilutive, as determined using the if-converted method and treasury methods. Accordingly, options to purchase 2,427 and warrants to purchase 1,383 shares at December 31, 2016, were not included in earnings per share. These options and warrants were not included in the computation of diluted earnings per share because the exercise prices were greater than the average market price of the common shares during the period, and accordingly, such options and warrants would have an antidilutive effect. In 2015, options to purchase 2,417 and warrants to purchase 2,595 shares were excluded from the computation of earnings per share because the exercise prices were greater than the average market price of the common shares and accordingly, their inclusion would have been antidilutive.

Recent accounting pronouncements

In August 2014, the FASB issued Accounting Standards Update (“ASU”) 2014-15 requiring an entity’s management to evaluate whether there are conditions or events, considered in aggregate, that raise substantial doubt about an entity’s ability to continue as a going concern within one year after the date that the financial statements are issued (or within one year after the date that the financial statements are available to be issued when applicable). The amendments in this update are effective for the annual period ending after December 15, 2016, and for annual periods and interim periods thereafter. Early application is permitted. The adoption of this standard did not have a material impact on our financial statements.

In June 2014, the FASB issued ASU 2014-12, “Compensation – Stock Compensation (Topic 718): Accounting for Share-Based Payments When the Terms of an Award Provide That a Performance Target Could Be Achieved after the Requisite Service Period”. The amended guidance requires that a performance target that affects vesting and that could be achieved after the requisite service period should be treated as a performance condition. The amendments are effective for annual periods and interim periods within those annual periods beginning after December 15, 2015. The adoption of this standard did not have a material impact on our financial statements.

In May 2014, the FASB issued ASU 2014-9, Revenue from Contracts with Customers (Topic 606), to clarify the principles for recognizing revenue. This update provides a comprehensive new revenue recognition model that requires revenue to be recognized in a manner to depict the transfer of goods or services to a customer at an amount that reflects the consideration expected to be received in exchange for those goods or services. In August 2015, the FASB issued ASU No. 2015-14, Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date, which delayed the effective date of the new standard from January 1, 2017 to January 1, 2018. The FASB also agreed to allow entities to choose to adopt the standard as of the original effective date. In March 2016, the FASB issued ASU No. 2016-08, Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations, which clarifies the implementation guidance on principal versus agent considerations. In April 2016, the FASB issued ASU No. 2016-10, Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing, which clarifies certain aspects of identifying performance obligations and licensing implementation guidance. In May 2016, the FASB issued ASU No. 2016-12, Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients related to disclosures of remaining performance obligations, as well as other amendments to guidance on collectability, non-cash consideration and the presentation of sales and other similar taxes collected from customers. These standards have the same effective date and transition date of January 1, 2018. The new revenue standard allows for either full retrospective or modified retrospective application.

In November 2015, the FASB issued ASU 2015-17, *Balance Sheet Classification of Deferred Taxes*, which simplifies the financial statement presentation of deferred income taxes by requiring that deferred income tax assets and liabilities be classified as noncurrent within a classified statement of financial position. Adoption and implementation of the guidance is not required by the Company until issuance of fiscal 2018 first quarter financial statements. The Company does not believe adoption of this guidance will have a material impact on its financial statements.

In February 2016, the FASB issued ASU 2016-02, *Leases*, which amends the accounting guidance related to leases. These changes, which are designed to increase transparency and comparability among organizations for both lessees and lessors, include, among other things, requiring recognition of lease assets and liabilities on the balance sheet and disclosing key information about leasing arrangements. Adoption and implementation of the guidance is not required by the Company until the beginning of fiscal 2020, although early adoption is permitted. The impact of the Company’s current lease is not material to the financial statements. Currently, this standard is not expected to impact the Company.

In March 2016, the FASB issued ASU 2016-09, *Improvements to Employee Share-Based Payment Accounting*, which amends the accounting for share-based payment transactions. These changes, which are designed for simplification, involve several aspects of the accounting for share-based transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. Adoption and implementation of the guidance is not required by the Company until the beginning of fiscal 2018, although early adoption is permitted. The Company has not yet completed its assessment of the impact that adoption of this guidance will have on its 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 stock 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):

| | Twelve Months Ended | |
|--|---------------------|-------------------|
| | December 31, 2016 | December 31, 2015 |
| Numerator: | | |
| Net loss | \$ (2,789) | \$ (659) |
| Denominator: | | |
| Weighted-average common shares, basic | 12,765 | 10,827 |
| Dilutive effect of stock options | - | - |
| Dilutive effect of warrants | - | - |
| Incremental dilutive shares | - | - |
| Weighted-average common shares, dilutive | 12,765 | 10,827 |
| Net loss per share, basic and diluted | \$ (0.22) | \$ (0.06) |

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:

| | Twelve Months Ended | |
|-----------------------------------|---------------------|-------------------|
| | December 31, 2016 | December 31, 2015 |
| Options to purchase common stock | 2,427 | 2,417 |
| Warrants to purchase common stock | 1,383 | 2,595 |

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 shares of common stock issuable under the stock option plan from a fixed number of 6,666 to the number of shares that represents twenty-five percent (25%) of the total number of all issued and outstanding shares of common stock. Based upon the current shares outstanding, a maximum of 3,410 options 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 seven years⁽¹⁾ 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, through the year ended December 31, 2016 is below.

- (1) On April 25, 2014 Fennec granted 133 options each to Dr. Khalid Islam and Adrian Haigh. Such options shall vest: (i) as to 66 Common Shares, on the date of grant; and (ii) as to 67 Common Shares, upon and subject to orphan drug approval of STS in the EU, provided that they then remain on the Board of Directors of the Company at the time of such approval and that they have played a vital or precipitating part in obtaining such EU orphan drug designation, as reasonably determined by non-interested Board members. If the vesting conditions referred to in (ii) above have not occurred by May 31, 2016, the option to acquire the 66 Common Shares referred to in (ii) above shall be terminated and of no further force or effect. On November 7, 2014 the Board of Directors amended the vesting conditions. The Board determined that it would be appropriate and desirable to amend the conditions such that (i) it could be fully satisfied by the Company obtaining, in lieu of orphan drug designation, PUMA in Europe for STS; and (ii) the deadline for satisfaction of the vesting condition extended to December 31, 2017. The Company has not recognized any expense associated with these options. On the date vesting conditions are met, the Company will recognize all of the expense associated with these options.

Summary of \$CAD Option Activity

| Share Prices Reported in \$CAD | Number of Options | Range | Weighted Average |
|---|----------------------|-----------------------|---------------------|
| Outstanding and exercisable at December 31, 2014 | 1,338 | \$ 1.62 – 2.43 | \$ 2.38 |
| Exercised | (14) | 1.62 – 2.43 | 1.94 |
| Forfeited or expired | (1) | 1.62 – 2.43 | 1.82 |
| Outstanding and exercisable at December 31, 2015 | 1,323 | \$ 1.62 – 2.43 | \$ 2.39 |
| Exercised | (-) | - | - |
| Forfeited or expired | (324) | 2.43 | 2.43 |
| Outstanding and exercisable at December 31, 2016 | 999 | \$ 1.62 – 2.43 | \$ 2.38 |

Summary of \$CAD Option Remaining Life

| Price \$CAD | Outstanding and Exercisable at December 31, 2016 | Weighted Average Remaining Life (years) |
|--------------|---|--|
| \$ 1.62 | 17 | 1.26 |
| \$ 1.89 | 76 | 1.39 |
| \$ 2.43 | 906 | 1.35 |
| Total | 999 | 1.35 |

Summary of \$USD Option Activity

| | Number of Options | Range | Weighted Average |
|---|----------------------|------------------------|---------------------|
| Outstanding and exercisable at December 31, 2014 | 1,072 | \$ 0.45 – 15.66 | \$ 1.77 |
| Granted | 71 | 1.13 – 2.51 | 1.36 |
| Exercised | (33) | 0.60 – 1.05 | 0.83 |
| Forfeited or expired | (16) | 0.54 – 15.66 | 2.24 |
| Outstanding and exercisable at December 31, 2015 | 1,094 | \$ 0.45 – 3.60 | \$ 1.77 |
| Granted | 370 | 2.11 – 2.45 | 2.42 |
| Exercised | (4) | 1.50 | 1.50 |
| Forfeited or expired | (32) | 1.89 - 2.69 | 2.65 |
| Outstanding and exercisable at December 31, 2016 | 1,428 | \$ 0.45 – 3.60 | \$ 1.93 |

Summary of \$USD Option Remaining Life

| Price in US Dollars | Number Outstanding and Exercisable at December 31, 2016 | Remaining Life (years) |
|------------------------|---|---------------------------|
| \$ 0.45 | 11 | 2.63 |
| \$ 0.54 | 19 | 3.38 |
| \$ 0.60 | 58 | 2.54 |
| \$ 0.72 | 83 | 3.40 |
| \$ 0.96 | 11 | 3.03 |
| \$ 1.05 | 113 | 2.97 |
| \$ 1.13 | 50 | 5.95 |
| \$ 1.23 | 8 | 4.15 |
| \$ 1.50 | 16 | 2.31 |
| \$ 1.59 | 176 | 4.04 |
| \$ 1.68 | 33 | 2.97 |
| \$ 1.89 | 8 | 1.63 |
| \$ 2.11 | 36 | 7.00 |
| \$ 2.30 | 4 | 3.90 |
| \$ 2.31 | 275 | 4.29 |
| \$ 2.35 | 4 | 4.01 |
| \$ 2.40 | 8 | 2.85 |
| \$ 2.44 | 49 | 6.11 |
| \$ 2.45 | 285 | 6.51 |
| \$ 2.51 | 4 | 3.82 |
| \$ 2.55 | 4 | 3.65 |
| \$ 2.69 | 118 | 4.78 |
| \$ 2.79 | 49 | 4.59 |
| \$ 2.94 | 3 | 2.91 |
| \$ 3.60 | 3 | 3.40 |
| Total | 1,428 | 4.59 |

Stock compensation expense for the fiscal years ended December 31, 2016 and 2015 was \$615 and \$97 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 during the fiscal years ended December 31, 2016 and 2015 was \$2.42 and \$1.37, respectively. The intrinsic value (being the difference between the share price at December 31, 2016 and exercise price) of stock options exercisable at December 31, 2016 was \$575. The intrinsic value of options exercised during the fiscal year ended December 31, 2016 was \$3. The fair value of all options vested during the fiscal year ended December 31, 2016 was \$280.

The fair values of options granted in fiscal years ended December 31, 2016 and 2015 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 seven year expiration:

| | Year Ended December 31, 2016 | Year Ended December 31, 2015 |
|-------------------------|------------------------------------|------------------------------------|
| Expected dividend | 0% | 0% |
| Risk-free interest rate | 1.27 – 2.25% | 1.89 – 2.02% |
| Expected volatility | 134 – 137% | 127 – 153% |
| Expected life | 7 years | 7 years |

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

Modification of Existing US Dollar Denominated Options

In 2016, the Company modified the terms of certain options granted to executives and directors by extending the expiration date by 1 year. The Company recorded option modification expense of approximately \$4 included in general and administrative expense. The expense was calculated using the Black-Scholes valuation method. The following table summarizes the effect of the June 8, 2016 transaction:

| Number of Options | Expiration Date | Risk Free Rate | Exercise Price \$USD | Share Price \$USD | Expected Life (Years) | Volatility | Expense Recognized \$USD |
|-------------------|-----------------|----------------|----------------------|-------------------|-----------------------|------------|--------------------------|
| 6 | 11/18/2018 | 0.93% | 1.50 | 2.43 | 3.44 | 152% | 1 |
| 17 | 04/04/2020 | 1.08% | 0.60 | 2.43 | 3.82 | 155% | 1 |
| 19 | 05/17/2020 | 1.08% | 0.54 | 2.43 | 3.94 | 154% | 1 |
| 9 | 11/20/2020 | 1.08% | 1.05 | 2.43 | 4.45 | 147% | 1 |
| 51 | | | | | | | 4 |

Modification of Existing Canadian Dollar Denominated Options

In 2016, the Company modified the terms of certain options granted to executives and directors by extending the expiration date by a weighted average amount of 1.45 years. The Company recorded option modification expense of approximately \$347 included in general and administrative expense. The expense was calculated using the Black-Scholes valuation method with a June 8, 2016 exchange rate of \$CAD/\$USD 0.7881. The following table summarizes the effect of the June 8, 2016 transaction:

| Number of Options | Expiration Date | Risk Free Rate | Exercise Price \$CAD | Share Price \$CAD | Expected Life (Years) | Volatility | Expense Recognized \$USD |
|-------------------|-----------------|----------------|----------------------|-------------------|-----------------------|------------|--------------------------|
| 17 | 08/18/2018 | 0.52% | 1.89 | 3.10 | 2.19 | 94% | 9 |
| 648 | 08/18/2018 | 0.52% | 2.43 | 3.10 | 2.19 | 94% | 338 |
| 665 | | | | | | | 347 |

5. Derivative Liabilities

The Company's derivative instruments include options to purchase 40 common shares, the exercise prices for which are denominated in a currency other than the Company's functional currency, as follows:

- Contractor options to purchase 21 common shares exercisable at CAD\$1.89 per whole common share that expire on November 19, 2017;
- Contractor options to purchase 17 common shares exercisable at CAD\$1.62 per whole common share that expire on April 4, 2018;
- Contractor options to purchase 2 common shares exercisable at CAD\$2.43 per whole common share that expire on May 18, 2018.

These options have been recorded at their fair value as a liability at issuance and will continue to be re-measured at fair value as a liability at each subsequent balance sheet date. Any change in value between reporting periods will be recorded as unrealized gain/(loss). These options will continue to be reported as a liability until such time as they are exercised, forfeited or expire. The fair value of these options is estimated using the Black-Scholes option-pricing model.

Options issued to contractors in a foreign currency

During the fiscal years ended December 31, 2011 and 2010, the Company issued 36 and 29 (respectively) options to contractors with a Canadian dollar denominated strike price. Consequently, the Company now has derivatives relating to these options since the strike price is denominated in a currency other than the US dollar functional currency of the Company. While there is an exception to this rule for employees in ASU 2010-13 "Compensation-Stock Compensation (Topic 718): Effect of Denominating the exercise price of a share based payment award in the currency of the market in which the underlying equity security trades", no such exception exists for contractors. These options will be marked to market until the earlier of their expiry or exercise. All Canadian denominated options issued to contractors fully vest at issuance and expire seven years from date of issuance. The fair value of these options at December 31, 2016 and December 31, 2015 was \$33 and \$41, respectively. The gain for these options for the twelve months ended December, 2016 was \$7. There was a gain on these options for the twelve months ended December, 2015 of \$78.

The following is a summary of Canadian denominated contractor option activity for the twelve months ended December 31, 2016 and 2015.

Share Prices Reported in \$CAD

| | Number of Options | | Weighted Average Exercise Price |
|---|-----------------------------|----|---------------------------------|
| | Outstanding and Exercisable | | |
| Outstanding and exercisable at December 31, 2014 | 55 | \$ | 1.84 |
| Exercised | (14) | | 1.94 |
| Forfeited or expired | (1) | | 1.82 |
| Outstanding and exercisable at December 31, 2015 | 40 | \$ | 1.81 |
| Exercised | - | | - |
| Forfeited or expired | - | | - |
| Outstanding and exercisable at December 31, 2016 | 40 | \$ | 1.81 |

The following table presents the overall change in derivative liability for the twelve months ended December 31, 2016 and December 31, 2015:

| Derivative Warrants/Options | Derivative Value at December 31, | | Gain/(Loss) on Derivative Instrument December 31, | |
|------------------------------------|----------------------------------|-----------|---|--------------|
| | 2016 | 2015 | 2016 | 2015 |
| Warrants expired April 30, 2015 | - | - | - | 411 |
| Warrants expiring March 29, 2016 | - | 41 | 41 | 748 |
| Options (various expiration dates) | 33 | 41 | 7 | 78 |
| Total | 33 | 82 | 48 | 1,237 |

6. 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 Measurement at December 31, 2016 | | | Total |
|---------------------------|---|---|---|----------|
| | Quoted Price in Active Market for Identical Instruments Level 1 | Significant Other Observable Inputs Level 2 | Significant Unobservable Inputs Level 3 | |
| Assets | | | | |
| Cash and cash equivalents | \$ 68(1) | \$ 3,858 | \$ - | \$ 3,926 |
| Liabilities | | | | |
| Derivative liabilities | - | 33 | - | 33 |

The Company's financial instruments include cash and cash equivalents and derivative liabilities. Only cash and cash equivalents and derivative liabilities are carried at their fair value. The derivative liabilities are options issued to contractors in a currency other than the functional currency of the Company. The options use the Black Scholes model with the following assumptions: expected dividend 0%; risk-free interest rate of 0.33 – 0.74%; expected volatility of 57%- 85%; and a 0.9-1.4 year remaining life. The risk free rate was based on Bank of Canada Bond issues of similar term. Expected volatility was estimated by using historical volatility of weekly close share prices for a period equal to the remaining life of the instrument or for a minimum of six months if the remaining life is less than six months.

(1) The Company held \$68 in cash, of which \$51 was in Canadian funds (translated into U.S. dollars).

7. Stockholders' Equity

Authorized capital stock

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

Equity financings

On May 16, 2016, the Company completed the closing of a non-brokered private placement (the "Offering") of 2,631,579 units for gross proceeds of \$5,000 to Essetifin, SpA. Each unit was issued at a price of \$1.90 per unit and each unit consisted of 1 common share of the Company.

Warrants to Purchase Common Stock

At December 31, 2016, the Company had the following warrants outstanding to purchase common stock priced in U.S. dollars with a weighted average price of \$1.55 and a weighted average remaining life of 1.9 years:

| Warrant Description | Common Shares Issuable Upon Exercise of Outstanding Warrants at December 31, 2016 | Exercise Price CAD/USD | Expiration Date |
|----------------------------------|---|------------------------|-------------------|
| Investor warrants ⁽¹⁾ | 1,333 | \$ 1.50 USD | November 22, 2018 |
| Investor warrants ⁽²⁾ | 50 | \$ 3.00 USD | February 2, 2019 |
| | 1,383 | | |

- (1) On November 22, 2013, the Company announced it had completed the closing of a non-brokered private placement of 4,000 units, at a price of \$0.40 per unit for net proceeds of \$1,600. Each unit consisted of one common share of the Company and one common share purchase warrant. Each warrant entitles the holder thereof to acquire one common share of the Company at a price of \$0.50 per share for a period of five years from the date of issuance. As a result of the September 3, 2014 share consolidation, each three (3) warrants now entitle the holder thereof to purchase one common share of the Company at a purchase price of \$1.50 per whole share for a period of five years from the issue date.
- (2) On February 2, 2016 the company issued 50 warrants to Aranea Partners in lieu of cash for investor services. These warrants are fully vested at December 31, 2016 and are redeemable for \$3.00 per common share. The fair value of these warrants is estimated using the Black-Scholes pricing model.

8. Sale of Asset

On August 29, 2016, Fennec completed the sale of certain intellectual property, data and other assets related to Eniluracil and Adh-1 technologies and development programs to Elion Oncology, LLC for gross proceeds of \$40. The Company retained the rights to revenue share payments of 5% of the gross revenues derived from the sold assets until the last to expire patents forming part of such assets.

9. Commitments and Contingencies

Oregon Health & Science University Agreement

On February 20, 2013, Fennec entered into a new exclusive license agreement with Oregon Health & Science University ("OHSU") for exclusive worldwide license rights to intellectual property directed to thiol-based compounds, including STS and their use in oncology (the "New 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.

The term of the New OHSU Agreement expires on the date of the last to expire claim(s) covered in the patents licensed to Fennec, unless earlier terminated as provided in the agreement. STS is currently protected by methods of use patents that the Company exclusively licensed from OHSU that expire in Europe in 2021 and are currently pending in the United States. The New 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 New OHSU Agreement at any time upon 60 days prior written notice and payment of all fees due to OHSU under the New OHSU Agreement.

On May 18, 2015, Fennec negotiated an amendment ("Amendment 1") to the exclusive license agreement with OHSU. Amendment 1 expands the exclusive license agreement signed with OHSU on February 20, 2013 ("OHSU Agreement") 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 Amendment 1 under the OHSU Agreement expires on the date of the last to expire claim(s) covered in the patents licensed to Fenec 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. STS is currently protected by methods of use patents that the Company exclusively licensed from OHSU that expire in Europe in 2021 and are currently pending in the United States. The New OHSU Agreement is terminable by either Fenec or OHSU in the event of a material breach of the agreement by either party after 45 days prior written notice. Fenec also has the right to terminate the New OHSU Agreement at any time upon 60 days prior written notice and payment of all fees due to OHSU under the New OHSU Agreement.

Executive Severance

In the event of his termination with us other than for cause, the Company will pay its Chief Executive Officer, Rostislav Raykov, a one-time severance compensation payment equal to 12 months of salary (currently \$250). Further, the Company will pay Chief Financial Officer, Robert Andrade, a one-time severance compensation equal to 6 months salary (currently \$95).

10. De-recognition of Statute Barred Payables

The Company had various payables from obligations which existed before current management took over the Company in 2009. These payables, although previously recorded, could not be substantiated as legitimate payables by management. Approximately \$79 worth of these payables became statute barred and were therefore written off in 2016 by reversing the original expense entry. This caused the reversal of approximately \$23 of general and administrative expense and approximately \$56 of research and development expense in the current year. These amounts are presented net in the general and administrative and research and development figures in financial statements.

11. 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:

| | Year Ended December 31, 2016 | Year Ended December 31, 2015 |
|---|------------------------------------|------------------------------------|
| Domestic (loss)/gain | (1,771) | 294 |
| Foreign loss | (1,018) | (952) |
| Loss before income taxes | (2,789) | (658) |
| Expected statutory rate (recovery) | 26.50% | 26.50% |
| Expected provision for (recovery of) income tax | (739) | (174) |
| Permanent differences | 156 | (301) |
| Change in valuation allowance | 583 | (1,297) |
| Effect of foreign exchange rate differences | - | - |
| Effect of non-capital losses expired | - | 1,318 |
| Tax credits and other adjustments | 1 | 450 |
| Effect of tax rate changes and other | -1 | 4 |
| 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, 2016, December 31, 2015:

| | December 31, 2016 | December 31, 2015 |
|---------------------------------------|----------------------|----------------------|
| Future tax assets: | | |
| SR&ED expenditures | 2,195 | 2,195 |
| Income tax loss carryforwards | 19,098 | 18,509 |
| Non-refundable investment tax credits | 1,263 | 1,263 |
| Share issue costs | 4 | 10 |
| Accrued expenses | - | - |
| Fixed and intangible assets | 1,032 | 1,032 |
| Harmonization credit | - | - |
| | 23,592 | 23,010 |
| Less: valuation allowance | (23,592) | (23,010) |
| Net future tax assets | \$ - | \$ - |

There are no current income taxes owed, nor are any income taxes expected to be owed in the near term. At December 31, 2016 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:

| | Federal | Province/ State |
|--|----------------|----------------------------|
| SR&ED expenditures (no expiry) | \$ 8,283 | \$ - |
| Income tax loss carryforwards (expiry date): | | |
| 2021 | 26 | - |
| 2022 | 233 | - |
| 2023 | 133 | - |
| 2024 | 1,536 | 1,455 |
| 2025 | 4,795 | 4,768 |
| 2026 | 20,562 | 12,945 |
| 2027 | 8,340 | 10,866 |
| 2028 | 10,840 | 10,550 |
| 2029 | 8,502 | 3,915 |
| 2030 | 2,608 | 3,243 |
| 2031 | 3,378 | 3,675 |
| 2032 | 3,491 | 1,754 |
| 2033 | 1,788 | 1,781 |
| 2034 | 1,812 | 1,684 |
| 2035 | 1,803 | 2,150 |
| 2036 | 2,222 | 1,013 |
| Investment tax credits (expiry date): | | |
| 2018 | 10 | |
| 2019 | 8 | |
| 2020 | 96 | |
| 2021 | 55 | |
| 2022 | 548 | |
| 2023 | 399 | |
| 2024 | 178 | |
| 2025 | 199 | |
| 2026 | 86 | |
| 2027 | 90 | |
| 2028 | 50 | |
| 2029 | - | |
| 2030 | - | |

**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, 2016 of Fennec Pharmaceuticals Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 29, 2017

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, 2016 of Fennec Pharmaceuticals Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 29, 2017

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 "Company") on Form 10-K for the period ended December 31, 2016 (the "Report"), 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: March 29, 2017

By: /s/ Rostislav Raykov
Rostislav Raykov
Chief Executive Officer

Date: March 29, 2017

By: /s/ Robert Andrade
Robert Andrade
Chief Financial Officer



FENNEC PROVIDES CORPORATE UPDATE AND ANNOUNCES FISCAL YEAR ENDED DECEMBER 31, 2016 FINANCIAL RESULTS

Research Triangle Park, NC, March 29, 2017 – Fennec Pharmaceuticals Inc. (TSX: FRX, OTCQB: FENCF), a specialty pharmaceutical company focused on the development of Sodium Thiosulfate (STS) for the prevention of platinum-induced ototoxicity in pediatric patients, today reported its corporate update and financial results for the year ended December 31, 2016.

"We are pleased with the progress made throughout 2016 including our \$5.0 million equity financing and additional positive interim safety results from SIOPEL 6," said Rosty Raykov, CEO of Fennec. "We remain focused on putting the Company in a position for potential regulatory filings in the USA and EU, contingent on the SIOPEL 6 study confirming that STS delivers a statistically significant reduction in hearing loss caused by Cisplatin chemotherapy in patients with hepatoblastoma. Final results from SIOPEL 6 are expected in the fourth quarter of 2017."

Highlights of Year 2016

- In April 2016, announced \$5.0 million equity financing by Essetifin SpA, positioning the Company to be funded through SIOPEL 6 results and complete manufacturing scale up for regulatory submissions in the US & EU.
- In June 2016, SIOPEL 6 announced positive interim safety data results showing no difference in Event Free Survival and Overall Survival at 2 years and encouraging audiometry results for the first 68 patients at American Society of Clinical Oncology (ASCO) 2016 Annual Meeting.
- In August 2016, seasoned pharmaceutical executive Marco Brughera, Global Head of Leadiant BioSciences Ltd (formerly Sigma Tau Rare Disease), joined the board.
- In October 2016, SIOPEL 6 announced updated interim results from SIOPEL 6 at SIOP 2016 meeting, showing a positive extension of the results presented at ASCO 2016 including that the addition of STS to the treatment of standard risk hepatoblastoma has not adversely affected survival.
- In December 2016, Lancet Oncology published the results of COGACCL0431.

Key Milestones for 2017

- Results from SIOPEL 6 on hearing efficacy is expected to be announced in the fourth quarter of 2017.
- Prepare for NDA/MAA submissions and commercialization.
- Regulatory Agency scientific advice meetings planned in US and Europe.

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 consolidated financial statements for the period ended December 31, 2016 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 Ended | |
|---|----------------------|----------------------|----------------------|----------------------|
| | December 31, 2016 | December 31, 2015 | December 31, 2016 | December 31, 2015 |
| Revenue | \$ - | \$ - | \$ - | \$ - |
| Operating expenses: | | | | |
| Research and development | 174 | 71 | 472 | 256 |
| General and administrative | 972 | 480 | 2,399 | 1,634 |
| Loss from operations | (1,146) | (551) | (2,871) | (1,890) |
| Other (expense)/income | | | | |
| Unrealized gain/(loss) on derivatives | 1 | 11 | 48 | 1,237 |
| Sale of Eniluracil | - | - | 40 | - |
| Other loss | - | - | (14) | (9) |
| Net interest income | 2 | - | 8 | 3 |
| Total other (expense)/income, net | 3 | 11 | 82 | 1,231 |
| Net income/(loss) | \$ (1,143) | \$ (540) | \$ (2,789) | \$ (659) |
| Basic net income/(loss) per common share | \$ (0.08) | \$ (0.05) | \$ (0.22) | \$ (0.06) |
| Diluted net income/(loss) per common share | \$ (0.08) | \$ (0.05) | \$ (0.22) | \$ (0.06) |

The Company reported a net loss from operations of \$1.1 million (which excludes an immaterial non-cash gain on derivatives) for the three months ended December 31, 2016, compared to a net loss from operations of \$0.5 million (excluding the non-cash gain of \$0.01 million) in 2015. Research and development expenses totaled \$0.2 million for the three months ended December 31, 2016, as compared to a \$0.07 million in the same period in 2015 as the Company increased drug manufacturing expense. General and administrative expenses increased by \$0.5 million in the three months ended December 31, 2016, as compared to the same period in 2015. The increase relates to non-cash equity based compensation for directors and officers, the extension of expiration dates on various prior option issuances to officers and directors and increased remuneration for officers and directors.

Total operating expenses were \$2.9 million for the year ended December 31, 2016 and \$1.9 million for the year ended December 31, 2015. The increase in net loss from operations excluding the non-cash impact of derivatives was due to both an increase in research and development expenses and general and administrative expenses. Research and development expenses were higher in fiscal 2016, as compared to fiscal 2015 primarily due to the preparation for the manufacturing of registration batches upon release of the study results from SIOPEL 6 in late 2017.

The \$0.80 million increase in general and administrative expenses are attributed to a rise in compensation to officers, directors and key contract employees. Most of this increase relates to non-cash equity based compensation that was granted and vested during the year. Of the \$0.70 million issued in equity based compensation, \$0.35 million of that relates to expense recognized with extending the expiration dates of existing options issued to executives and directors. The rest relates to increases in remuneration paid to officers and directors as the Company moved to bring its compensation for key individuals in line with industry benchmarks.

Other income fell by \$1.2 million as a result of the expiration of all remaining derivative warrants carried on the books. The company has a very small number of derivative options outstanding. Future changes in the valuation associated with these options are not expected to have a significant impact on the Company's financial statements for the remaining life of these derivatives.

The Company completed the sale of certain intellectual property, data and other assets related to Eniluracil and Adh-1 for gross proceeds of \$40. Interest income increased slightly in fiscal 2016, as compared to 2015 due to a higher average cash balance for the comparable periods.

Fennec Pharmaceuticals Inc.
Balance Sheets
(U.S. Dollars in thousands)

| | December 31, 2016 | December 31, 2015 |
|---|--------------------------|--------------------------|
| Assets | | |
| Cash and cash equivalents | \$ 3,926 | \$ 942 |
| Other current assets | 46 | 77 |
| Total Assets | \$ 3,972 | \$ 1,019 |
| Liabilities and stockholders' equity | | |
| Current liabilities | \$ 369 | \$ 389 |
| Derivative liabilities | 33 | 82 |
| Total stockholders' equity | 3,570 | 548 |
| Total liabilities and stockholders' equity | \$ 3,972 | \$ 1,019 |

The \$3.0 million increase in cash and cash equivalents between December 31, 2016 and December 31, 2015 is due to the \$5.0 million equity financing completed in May 2016, and the \$0.1 million cash proceeds from the exercise of 67 warrants offset by clinical trial expenses related to our Phase III study of STS, the increase in regulatory and manufacturing activities for STS and our general and administrative expenses.

The decrease in other current assets between December 31, 2015 and December 31, 2016 relates to a reduction in pre-paid Director's and Officer's Insurance over the prior year. Current liabilities decreased primarily due to a write-off of old payables which had become statute barred. The Company wrote off approximately \$0.08 million of payables which has become statute barred.

Working Capital

| Selected Asset and Liability Data: | Fiscal Year Ended | |
|--|--------------------------|--------------------------|
| | December 31, 2016 | December 31, 2015 |
| <i>(U.S. Dollars in thousands)</i> | | |
| Cash and cash equivalents | \$ 3,926 | \$ 942 |
| Other current assets | 46 | 77 |
| Current liabilities excluding derivative liability | (369) | (389) |
| Working capital | \$ 3,603 | \$ 630 |
| Selected Equity: | | |
| Common stock & APIC | \$ 116,649 | \$ 110,838 |
| Accumulated deficit | (114,322) | (111,533) |
| Stockholders' equity | 3,570 | 548 |

Working capital increased between December 31, 2016 and December 31, 2015 by \$2.9 million. The increase was a result of a private placement funding in addition to various warrant and option exercises in 2016. These cash inflows were offset by cash expenditures related to our clinical trials, the commercial development of STS and general and administrative expenses.

Forward looking statements

Except for historical information described in this press release, all other statements are forward-looking. 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 that regulatory and guideline developments may change, scientific data 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, 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, 2016. Fennec Pharmaceuticals, Inc. 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 www.sec.gov and www.sedar.com.

About Sodium Thiosulfate (STS)

Cisplatin and other platinum compounds are essential chemotherapeutic components for many pediatric malignancies. Unfortunately, platinum-based therapies cause ototoxicity in many patients, and are particularly harmful to the survivors of pediatric cancer.

In the U.S. and Europe there is estimated that over 10,000 children are diagnosed with local cancers that may receive platinum based chemotherapy. Localized cancers that receive platinum agents may have overall survival rates of greater than 80% further emphasizing the quality of life after treatment. 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. 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 at critical stages of development lack speech language development and literacy, and older children and adolescents lack social-emotional development and educational achievement.

STS 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 are closed to recruitment. 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.

About Fennec Pharmaceuticals

Fennec Pharmaceuticals, Inc., is a specialty pharmaceutical company focused on the development of Sodium Thiosulfate (STS) for the prevention of platinum-induced ototoxicity in pediatric patients. STS has received Orphan Drug Designation in the US in this setting. For more information, please visit www.fennecpharma.com.

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