

Aeterna Zentaris Inc.  
Form 20-F  
March 17, 2015

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

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FORM 20-F

Registration Statement Pursuant to Section 12(b) or 12(g) of The Securities Exchange Act of 1934

OR

Annual Report Pursuant to Section 13 or 15(d) of The Securities Exchange Act of 1934 for the fiscal year ended  
December 31, 2014

OR

Transition Report Pursuant to Section 13 or 15(d) of The Securities Exchange Act of 1934

OR

Shell Company Report Pursuant to Section 13 or 15(d) of The Securities Exchange Act of 1934

Commission file number 0-30752

AETERNA ZENTARIS INC.

(Exact Name of Registrant as Specified in its Charter)

Not Applicable

(Translation of Registrant's Name into English)

Canada

(Jurisdiction of Incorporation)

1405 du Parc-Technologique Blvd.

Quebec City, Quebec

Canada, G1P 4P5

(Address of Principal Executive Offices)

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Quebec City, Quebec

Canada, G1P 4P5

(Name, Telephone, E-mail and Address of Company Contact Person)

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

| Title of Each Class | Name of Each Exchange on Which Registered       |
|---------------------|---|
| Common Shares       | NASDAQ Capital Market<br>Toronto Stock Exchange |

Securities registered or to be registered pursuant to Section 12(g) of the Act: NONE

Securities for which there is a reporting obligation pursuant to Section 15(d) of the ACT: NONE

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as at the close of the period covered by the annual report: 65,509,077 Common Shares as at December 31, 2014.

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

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. 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

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

Large accelerated filer  Accelerated filer  Non-accelerated filer

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

US GAAP  International Financial Reporting Standards as issued by the Other   
International Accounting Standards Board

If "other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow. Item 17  Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes  No

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## Basis of Presentation

### General

Except where the context otherwise requires, all references in this Annual Report on Form 20-F to the "Company", "Aeterna Zentaris Inc.", "we", "us", "our" or similar words or phrases are to Aeterna Zentaris Inc. and its subsidiaries, taken together. In this Annual Report on Form 20-F, references to "\$" and "US\$" are to United States dollars, references to "CAN\$" are to Canadian dollars and references to "EUR" are to euros. Unless otherwise indicated, the statistical and financial data contained in this Annual Report on Form 20-F are presented as at December 31, 2014. This Annual Report on Form 20-F also contains certain information regarding products or product candidates that may potentially compete with our products and product candidates, and such information has been primarily derived from information made publicly available by the companies developing such potentially competing products and product candidates and has not been independently verified by Aeterna Zentaris Inc.

### Forward-Looking Statements

This Annual Report on Form 20-F contains forward-looking statements made pursuant to the safe harbor provisions of the U.S. Securities Litigation Reform Act of 1995. Forward-looking statements can be identified by words such as: "intend," "believe," "designed to," "vision," "aimed at," "expect," "may," "should," "would," "will" and similar references. Such statements include, but are not limited to, statements about the progress of our research, development and clinical trials and the timing of, and prospects for, regulatory approval and commercialization of our product candidates, the timing of expected results of our studies and the anticipated results of these studies, statements about the status of our efforts to establish a commercial operation and to obtain the right to promote or sell products that we did not develop, and estimates regarding our capital requirements and our needs for, and our ability to obtain, additional financing. Forward-looking statements involve known and unknown risks and uncertainties, which could cause the Company's actual results to differ materially from those in the forward-looking statements. Such risks and uncertainties include, among others, the availability of funds and resources to pursue our research and development ("R&D") projects, the successful and timely completion of clinical studies, the degree of market acceptance once our products are approved for commercialization, the ability of the Company to take advantage of business opportunities in the pharmaceutical industry, the ability of the Company to protect its intellectual property, uncertainties related to the regulatory process and general changes in economic conditions. Investors should consult the Company's quarterly and annual filings with the Canadian and United States ("U.S.") securities commissions for additional information on risks and uncertainties relating to the forward-looking statements. Investors are cautioned not to place undue reliance on these forward-looking statements. The Company does not undertake to update these forward-looking statements and disclaims any obligation to update any such factors or to publicly announce the result of any revisions to any of the forward-looking statements contained herein to reflect future results, events or developments, except if required to do so by a governmental authority or applicable law.

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PART I

Item 1. Identity of Directors, Senior Management and Advisers

A. Directors and senior management

Not applicable.

B. Advisers

Not applicable.

C. Auditors

Not applicable.

Item 2. Offer Statistics and Expected Timetable

A. Offer statistics

Not applicable.

B. Method and expected timetable

Not applicable.

Item 3. Key Information

A. Selected financial data

The consolidated statement of comprehensive (loss) income data set forth in this Item 3.A with respect to the years ended December 31, 2014, 2013 and 2012 and the consolidated statement of financial position data as at December 31, 2014 and 2013 have been derived from the audited consolidated financial statements set forth in Item 18, which have been prepared in accordance with International Financial Reporting Standards ("IFRS"), as issued by the International Accounting Standards Board ("IASB"). The consolidated statement of financial position data as at December 31, 2012 set forth in this Item 3.A have been derived from our previous consolidated financial statements not included herein, and have also been prepared in accordance with IFRS, as issued by the IASB. The selected financial data should be read in conjunction with our audited consolidated financial statements and the related notes included elsewhere in this Annual Report on Form 20-F, as well as "Item 5. – Operating and Financial Review and Prospects" of this Annual Report on Form 20-F.

## Consolidated Statements of Comprehensive (Loss) Income

(in thousands of US dollars, except share and per share data)

Derived from consolidated financial statements prepared in accordance with IFRS, as issued by the IASB

|  | Years ended December 31, |            |            |
|--|--------------------------|------------|------------|
|  | 2014                     | 2013       | 2012       |
|  | \$                       | \$         | \$         |
| Revenues   |                          |            |            |
| Sales  | —                        | 96         | 834        |
| License fees   | 11                       | 6,079      | 1,219      |
|  | 11                       | 6,175      | 2,053      |
| Operating expenses   |                          |            |            |
| Cost of sales  | —                        | 51         | 591        |
| Research and development costs, net of refundable tax credits and grants | 23,716                   | 21,284     | 20,592     |
| Selling, general and administrative expenses                             | 13,690                   | 12,316     | 10,606     |
|  | 37,406                   | 33,651     | 31,789     |
| Loss from operations   | (37,395                  | ) (27,476  | ) (29,736  |
| Finance income   | 20,319                   | 1,748      | 6,974      |
| Finance costs  | —                        | (1,512     | ) (382     |
| Net finance income (costs)   | 20,319                   | 236        | 6,592      |
| Loss before income taxes   | (17,076                  | ) (27,240  | ) (23,144  |
| Income tax expense   | (111                     | ) —        | —          |
| Net loss from continuing operations                                      | (17,187                  | ) (27,240  | ) (23,144  |
| Net income from discontinued operations                                  | 623                      | 34,055     | 2,732      |
| Net (loss) income  | (16,564                  | ) 6,815    | (20,412    |
| Other comprehensive (loss) income:                                       |                          |            |            |
| Items that may be reclassified subsequently to profit or loss:           |                          |            |            |
| Foreign currency translation adjustments                                 | (1,158                   | ) 1,073    | (504       |
| Items that will not be reclassified to profit or loss:                   |                          |            |            |
| Actuarial (loss) gain on defined benefit plans                           | (1,833                   | ) 2,346    | (3,705     |
| Comprehensive (loss) income  | (19,555                  | ) 10,234   | (24,621    |
| Net loss per share (basic and diluted) from continuing operations        | (0.29                    | ) (0.92    | ) (1.17    |
| Net income (basic and diluted) from discontinued operations              | 0.01                     | 1.16       | 0.14       |
| Net (loss) income (basic and diluted) per share                          | (0.28                    | ) 0.24     | (1.03      |
| Weighted average number of shares outstanding:                           |                          |            |            |
| Basic  | 59,024,730               | 29,476,455 | 19,775,073 |
| Diluted  | 59,024,730               | 29,476,455 | 19,806,687 |

## Consolidated Statement of Financial Position Information

(in thousands of US dollars)

Derived from consolidated financial statements prepared in accordance with IFRS, as issued by the IASB

|                                   | As at December 31, |         |         |
|-----------------------------------|--------------------|---------|---------|
|                                   | 2014               | 2013    | 2012    |
|                                   | \$                 | \$      | \$      |
| Cash and cash equivalents         | 34,931             | 43,202  | 39,521  |
| Restricted cash equivalents       | 760                | 865     | 826     |
| Total assets                      | 47,435             | 59,196  | 67,655  |
| Warrant liability                 | 8,225              | 18,010  | 6,176   |
| Share capital                     | 150,544            | 134,101 | 122,791 |
| Shareholders' equity (deficiency) | 14,484             | 17,064  | (6,695) |

## B. Capitalization and indebtedness

Not applicable.

## C. Reasons for the offer and use of proceeds

Not applicable.

## D. Risk factors

## Risks Relating to Us and Our Business

Investments in biopharmaceutical companies are generally considered to be speculative.

The prospects for companies operating in the biopharmaceutical industry are uncertain, given the very nature of the industry, and, accordingly, investments in biopharmaceutical companies should be considered to be speculative assets.

We have a history of operating losses and we may never achieve or maintain operating profitability.

Our product candidates remain at the development stage, and we have incurred substantial expenses in our efforts to develop products. Consequently, we have incurred operating losses historically and in each of the last several years.

At December 31, 2014, we had an accumulated deficit of \$222.3 million. Our operating losses have adversely impacted, and will continue to adversely impact, our working capital, total assets and shareholders' equity (deficiency). We do not expect to reach operating profitability in the immediate future, and our operating expenses are likely to continue to represent a significant component of our overall cost profile as we continue our R&D and clinical study programs and seek regulatory approval for our product candidates and carry out commercial activities. Even if we succeed in developing, acquiring or in-licensing new commercial products, we could incur additional operating losses for at least the next several years. If we do not ultimately generate sufficient revenue to achieve profitability, an investment in our securities could result in a significant or total loss.

Our clinical trials may not yield results which will enable us to obtain regulatory approval for our products, and a setback in any of our clinical trials would likely cause a drop in the price of our Common Shares.

We will only receive regulatory approval for a product candidate if we can demonstrate in carefully designed and conducted clinical trials that the product candidate is both safe and effective. We do not know whether our pending or any future clinical trials, including ZoptEC (Zoptarelin doxorubicin in Endometrial Cancer), which is expected to produce interim results in the first half of 2015, will demonstrate sufficient safety and efficacy to obtain the requisite regulatory approvals or will result in marketable products. Unfavorable data from those studies could result in the withdrawal of marketing approval for approved products or an extension of the review period for developmental products. Preclinical testing and clinical development are inherently lengthy, complex, expensive and uncertain processes and have a high risk of failure. It typically takes many years to complete testing, and failure can occur at any stage of testing. Results attained in preclinical testing and early clinical studies, or trials, may not be indicative of results that are obtained in later studies. In addition, we have limited experience in conducting and managing the clinical trials necessary to obtain regulatory approval in the U.S., in Canada and abroad and, accordingly, may encounter unforeseen problems and delays in the approval process. Though we may engage a contract

research organization (a "CRO") with experience in conducting regulatory trials, errors in the conduct, monitoring and/or auditing could invalidate the results from a regulatory perspective.

None of our current product candidates have to date received regulatory approval for their intended commercial sale. We cannot market a pharmaceutical product in any jurisdiction until it has completed rigorous preclinical testing and clinical trials and passed such jurisdiction's extensive regulatory approval process. In general, significant R&D and clinical studies are required to demonstrate the safety and efficacy of our product candidates before we can submit regulatory applications. Even if a product candidate is approved by the US Food and Drug Administration (the "FDA"), the Canadian Therapeutic Products Directorate ("CTPD") or any other regulatory authority, we may not obtain approval for an indication whose market is large enough to recover our investment in that product candidate. In addition, there can be no assurance that we will ever obtain all or any required regulatory approvals for any of our product candidates.

We are currently developing our product candidates based on R&D activities, preclinical testing and clinical trials conducted to date, and we may not be successful in developing or introducing to the market these or any other new products or technology. If we fail to develop and deploy new products successfully and on a timely basis, we may become non-competitive and unable to recover the R&D and other expenses we incur to develop and test new products.

Interim results of preclinical or clinical studies do not necessarily predict their final results, and acceptable results in early studies might not be obtained in later studies. Safety signals detected during clinical studies and preclinical animal studies may require us to perform additional studies, which could delay the development of the drug or lead to a decision to discontinue development of the drug. Product candidates in the later stages of clinical development may fail to show the desired safety and efficacy traits despite positive results in initial clinical testing. Results from earlier studies may not be indicative of results from future clinical trials and the risk remains that a pivotal program may generate efficacy data that will be insufficient for the approval of the drug, or may raise safety concerns that may prevent approval of the drug. Interpretation of the prior preclinical and clinical safety and efficacy data of our product candidates may be flawed and there can be no assurance that safety and/or efficacy concerns from the prior data were overlooked or misinterpreted, which in subsequent, larger studies appear and prevent approval of such product candidates.

Furthermore, we may suffer significant setbacks in advanced clinical trials, even after promising results in earlier studies. Based on results at any stage of clinical trials, we may decide to repeat or redesign a trial or discontinue development of one or more of our product candidates. Further, actual results may vary once the final and quality-controlled verification of data and analyses has been completed. If we fail to adequately demonstrate the safety and efficacy of our products under development, we will not be able to obtain the required regulatory approvals to commercialize our product candidates.

A failure in the development of any one of our programs or product candidates could have a negative impact on the development of the others. Setbacks in any phase of the clinical development of our product candidates would have an adverse financial impact (including with respect to any agreements and partnerships that may exist between us and other entities), could jeopardize regulatory approval and would likely cause a drop in the price of our securities.

If we are unable to successfully complete our clinical trial programs, or if such clinical trials take longer to complete than we project, our ability to execute our current business strategy will be adversely affected.

Whether or not and how quickly we complete clinical trials is dependent in part upon the rate at which we are able to engage clinical trial sites and, thereafter, the rate of enrollment of patients, and the rate at which we collect, clean, lock and analyze the clinical trial database. Patient enrollment is a function of many factors, including the design of the protocol, the size of the patient population, the proximity of patients to and availability of clinical sites, the eligibility criteria for the study, the perceived risks and benefits of the drug under study and of the control drug, if any, the efforts to facilitate timely enrollment in clinical trials, the patient referral practices of physicians, the existence of competitive clinical trials, and whether existing or new drugs are approved for the indication we are studying. Certain clinical trials are designed to continue until a pre-determined number of events have occurred to the patients enrolled. Such trials are subject to delays stemming from patient withdrawal and from lower than expected event rates and may also incur increased costs, if enrollment is increased in order to achieve the desired number of events. If we experience

delays in identifying and contracting with sites and/or in patient enrollment in our clinical trial programs, we may incur additional costs and delays in our development programs, and we may not be able to complete our clinical trials on a cost-effective or timely basis. In addition, conducting multi-national studies adds another level of complexity and risk as we are subject to events affecting countries other than Canada and the United States. Moreover, negative or inconclusive results from the clinical trials we conduct or adverse medical events could cause us to have to repeat or terminate the clinical trials. Accordingly, we may not be able to complete the clinical trials within an acceptable time frame, if at all. If we or any third party have difficulty enrolling a sufficient number of patients to conduct our clinical trials as planned, we may need to delay or terminate ongoing clinical trials.

Clinical trials are subject to continuing oversight by governmental regulatory authorities and institutional review boards and must:

- meet the requirements of these authorities;
- meet the requirements for informed consent; and
- meet the requirements for good clinical practices.

We may not be able to comply with these requirements in respect of one or more of our product candidates.

Additionally, we have limited experience in filing a New Drug Application ("NDA") or similar application for approval in the U.S. or in any other country for our current product candidates, which may result in a delay in, or the rejection of, our filing of an NDA or similar application. During the drug development process, regulatory agencies will typically ask questions of drug sponsors. While we endeavor to answer all such questions in a timely fashion, some questions may not be answered in time to prevent the delay of acceptance of an NDA or the rejection of an NDA.

We have incurred, and expect to continue to incur, substantial expenses, and we have made, and expect to continue to make, substantial financial commitments to establish a commercial operation. There can be no assurance how quickly, if ever, we will realize a profit from our commercial operation.

Our business strategy is to become an integrated specialty biopharmaceutical company with commercial operations to market and sell products that we develop, may acquire or in-license. To that end, during 2014, we established a commercial operation, including hiring a 19-person contract sales force and two regional sales managers and establishing a new office location and infrastructure for our North American business and global operations. We have to date incurred, and expect to continue to incur, substantial expenses, and we have made, and expect to continue to make, substantial financial commitments to build out our commercial operations. Establishing a commercial operation is expensive and time-consuming, and there can be no assurance how quickly, if ever, we will realize a profit from our commercial operation. Factors that may inhibit our efforts to realize a profit from our commercial operations, should we be successful in consummating transactions such as acquisitions, in-licensing, promotional or co-promotional arrangements with third parties, include:

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

Our financial viability depends, in part, on our ability to acquire, in-license or otherwise obtain the right to sell other products. If we are unable to do so, we will continue to experience operating losses from our commercial operations. We must acquire, in-license or otherwise acquire the right to sell or promote other products to achieve profitability of our commercial operations. Our management team is spending a substantial amount of its time on efforts to obtain additional products. These business activities entail numerous operational and financial risks, including:

- the difficulty or inability to secure financing to acquire or in-license products;
- the incurrence of substantial debt or dilutive issuances of securities to pay for the acquisition or in-licensing of new products;
- the disruption of our business and diversion of our management's time and attention;
- higher than expected development, acquisition or in-license and integration costs;
- exposure to unknown liabilities; and
- the difficulty in locating products that are in our targeted therapeutic areas and that are compatible with other products in our portfolio.

We can provide no assurance that we will be able to identify potential product candidates or strategic commercial partners or, if we identify such product candidates or partners, that any related commercial arrangements will be consummated on terms that are favorable to us. To the extent that we are successful in entering into any strategic commercial arrangements, including



promotional or co-promotional agreements, or acquisition or in-licensing agreements with third parties, we cannot provide any assurance that any resulting initiatives or activities will be successful. To the extent that any related investments in such arrangements do not yield the expected benefits, our business, financial condition and results of operations may be materially adversely affected.

We have limited resources to identify and execute the procurement of additional products and to integrate them into our current commercial operations. The failure to successfully integrate the personnel and operations of businesses that we may acquire or of products that we may in-license in the future with our existing operations, business and products could have a material adverse effect on our operations and results. We compete with larger pharmaceutical companies and other competitors in our efforts to acquire, in-license and/or obtain the right to market new products. Our competitors likely will have access to greater financial resources than us and may have greater expertise in identifying and evaluating new opportunities. Moreover, we may devote resources to potential acquisition, in-licensing, promotion or co-promotion opportunities that are never completed, or we may fail to realize the anticipated benefits of such efforts.

We will require significant additional financing, and we may not have access to sufficient capital.

We will require significant additional capital to fund our commercial operations and to pursue planned clinical trials, regulatory approvals and R&D efforts. We do not anticipate generating significant revenues from operations in the near future, and we currently have no committed sources of capital.

We may attempt to raise additional funds through public or private financings, collaborations with other pharmaceutical companies or from other sources, including, without limitation, through at-the-market offerings and issuances of Common Shares. Additional funding may not be available on terms which are acceptable to us. If adequate funding is not available to us on reasonable terms, we may need to delay, reduce or eliminate one or more of our product development programs or obtain funds on terms less favorable than we would otherwise accept. To the extent that additional capital is raised through the sale of equity securities or securities convertible into or exchangeable or exercisable for equity securities ("Convertible Securities"), the issuance of those securities could result in dilution to our shareholders. Moreover, the incurrence of debt financing or the issuance of dividend-paying preferred shares could result in a substantial portion of our future operating cash flow, if any, being dedicated to the payment of principal and interest on such indebtedness or the payment of dividends on such preferred shares and could impose restrictions on our operations and on our ability to make certain expenditures and/or to incur additional indebtedness. This could render us more vulnerable to competitive pressures and economic downturns.

We anticipate that our cash and equivalents as at December 31, 2014 will be sufficient to fund our commercial operations, development programs, clinical trials and other operating expenses at least through December 31, 2015.

However, our future capital requirements are substantial and may increase beyond our current expectations depending on many factors, including:

- the duration of, changes to and results of our clinical trials for our various product candidates going forward;
- unexpected delays or developments in seeking regulatory approvals;
- the time and cost involved in preparing, filing, prosecuting, maintaining and enforcing patent claims;
- unexpected developments encountered in implementing our business development and commercialization strategies;
- the potential addition of commercialized products to our pipeline;
- the outcome of litigation, if any; and
- further arrangements, if any, with collaborators.

In addition, global economic and market conditions as well as future developments in the credit and capital markets may make it even more difficult for us to raise additional financing in the future.

If we are unsuccessful in increasing our revenues and/or raising additional funding, we may possibly cease to continue operating as we currently do.

We have had sustained operating losses, deficits and negative cash flows from operating activities over the past several years, and we expect that we will continue to do so for an extended period.

Although our audited consolidated financial statements as at December 31, 2014 and December 31, 2013 and for the years ended December 31, 2014, 2013 and 2012 were prepared on a going concern basis, which contemplates the realization of assets and liquidation of liabilities during the normal course of operations, our ability to continue as a

going concern is dependent on the successful execution of our business plan, which will require an increase in revenue and/or additional funding to be

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provided by potential investors as well as non-traditional sources of financing. Although we state in Item 5 of this Annual Report on Form 20-F that management believes that we had, as at December 31, 2014, sufficient liquidity and financial resources to fund planned expenditures and other working capital needs for at least, but not limited to, the 12-month period following such date, there can be no assurance that management will be able to reiterate such belief in the future, particularly in the event that we do not or are unable to raise additional capital, as we do not expect our operations to generate sufficient cash flow to fund our operations.

Additional funding may be in the form of debt or equity or a hybrid instrument depending on our needs, those of investors and market conditions. Depending on the prevailing global economic and credit market conditions, we may not be able to raise additional cash resources through these traditional sources of financing. Although we may also pursue non-traditional sources of financing with third parties, the global equity and credit markets may adversely affect the ability of potential third parties to pursue such transactions with us. Accordingly, as a result of the foregoing, we continue to review traditional sources of financing, such as private and public debt or various equity financing alternatives, as well as other alternatives to enhance shareholder value, including, but not limited to, non-traditional sources of financing, such as strategic alliances with third parties, the sale of assets or licensing of our technology or intellectual property, a combination of operating and related initiatives or a substantial reorganization of our business.

There can be no assurance that we will achieve profitability or positive cash flows or be able to obtain additional funding or that, if obtained, they will be sufficient, or whether any other initiatives will be successful such that we may continue as a going concern. There also could be material uncertainties related to certain adverse conditions and events that could impact our ability to remain a going concern. If the going concern assumptions were deemed no longer appropriate for our consolidated financial statements, adjustments to the carrying value of assets and liabilities, reported expenses and consolidated statement of financial position classifications would be necessary. Such adjustments could be material.

We are and will be subject to stringent ongoing government regulation for our products and our product candidates, even if we obtain regulatory approvals for the latter.

The manufacture, marketing and sale of our products and product candidates are and will be subject to strict and ongoing regulation, even if regulatory authorities approve any of the latter. Compliance with such regulation will be expensive and consume substantial financial and management resources. For example, an approval for a product may be conditioned on our agreement to conduct costly post-marketing follow-up studies to monitor the safety or efficacy of the product. In addition, as a clinical experience with a drug expands after approval because the drug is used by a greater number and more diverse group of patients than during clinical trials, side effects or other problems may be observed after approval that were not observed or anticipated during pre-approval clinical trials. In such a case, a regulatory authority could restrict the indications for which the product may be sold or revoke the product's regulatory approval.

We and our contract manufacturers will be required to comply with applicable current Good Manufacturing Practice ("cGMP") regulations for the manufacture of our products. These regulations include requirements relating to quality assurance, as well as the corresponding maintenance of rigorous records and documentation. Manufacturing facilities must be approved before we can use them in the commercial manufacturing of our products and are subject to subsequent periodic inspection by regulatory authorities. In addition, material changes in the methods of manufacturing or changes in the suppliers of raw materials are subject to further regulatory review and approval. If we, or if any future marketing collaborators or contract manufacturers, fail to comply with applicable regulatory requirements, we may be subject to sanctions including fines, product recalls or seizures and related publicity requirements, injunctions, total or partial suspension of production, civil penalties, suspension or withdrawals of previously granted regulatory approvals, warning or untitled letters, refusal to approve pending applications for marketing approval of new products or of supplements to approved applications, import or export bans or restrictions, and criminal prosecution and penalties. Any of these penalties could delay or prevent the promotion, marketing or sale of our products and product candidates.

Even if we receive marketing approval for our product candidates, such product approvals could be subject to restrictions or withdrawals. Regulatory requirements are subject to change.

Regulatory authorities generally approve products for particular indications. If an approval is for a limited indication, this limitation reduces the size of the potential market for that product. Product approvals, once granted, are subject to continual review and periodic inspections by regulatory authorities. Our operations and practices are subject to regulation and scrutiny by the United States government, as well as governments of any other countries in which we do business or conduct activities. Later discovery of previously unknown problems or safety issues and/or failure to comply with domestic or foreign laws, knowingly or unknowingly, can result in various adverse consequences, including, among other things, a possible delay in the approval or refusal to approve a product, warning letters, fines, injunctions, civil penalties, recalls or seizures of products, total

or partial suspension of production, refusal of the government to renew marketing applications, complete withdrawal of a marketing application, criminal prosecution, withdrawal of an approved product from the market and/or exclusion from government healthcare programs. Such regulatory enforcement could have a direct and negative impact on the product for which approval is granted, but also could have a negative impact on the approval of any pending applications for marketing approval of new drugs or supplements to approved applications.

Because we operate in a highly regulated industry, regulatory authorities could take enforcement action against us in connection with our, or our licensees' or collaborators', business and marketing activities for various reasons. From time to time, new legislation is passed into law that could significantly change the statutory provisions governing the approval, manufacturing, and marketing of products regulated by the FDA and other health authorities. Additionally, regulations and guidance are often revised or reinterpreted by health agencies in ways that may significantly affect our business and our products. It is impossible to predict whether further legislative changes will be enacted, or whether regulations, guidance, or interpretations will change, and what the impact of such changes, if any, may be. For example, the Patient Protection and Affordable Care Act and the Healthcare and Education Affordability Reconciliation Act of 2010 (collectively, the "ACA"), enacted in the U.S. in March 2010, substantially changed the way healthcare is financed by both governmental and private insurers, and significantly impacted the pharmaceutical industry. With regard to pharmaceutical products, among other things, ACA is expected to expand and increase industry rebates for drugs covered under Medicaid programs and make changes to the coverage requirements under the Medicare D program. We expect both government and private health plans to continue to require healthcare providers, including healthcare providers that may one day purchase our products, to contain costs and demonstrate the value of the therapies they provide.

If we market products in a manner that violates healthcare fraud and abuse laws, we may be subject to civil or criminal penalties, including exclusion from participation in government healthcare programs.

As a pharmaceutical company, even though we do not provide healthcare services or receive payments directly from or bill directly to Medicare, Medicaid or other third-party payers for our products, certain federal and state healthcare laws and regulations pertaining to fraud and abuse are and will be applicable to our business. We are subject to healthcare fraud and abuse regulation by both the federal government and the states in which we conduct our business. The laws that may affect our ability to operate include the federal healthcare program anti-kickback statute, which prohibits, among other things, knowingly and willfully offering, paying, soliciting, or receiving remuneration to induce, or in return for, the purchase, lease, order, or arrangement for the purchase, lease or order of any healthcare item or service reimbursable under Medicare, Medicaid or other federally financed healthcare programs. This statute applies to arrangements between pharmaceutical manufacturers and prescribers, purchasers and formulary managers. Although there are a number of statutory exceptions and regulatory safe harbors protecting certain common activities, the exceptions and safe harbors are drawn narrowly, and practices that involve remuneration intended to induce prescribing, purchases or recommendations may be subject to scrutiny if they do not qualify for an exception or safe harbor.

Federal false claims laws prohibit any person from knowingly presenting, or causing to be presented, a false claim for payment to the federal government, or knowingly making, or causing to be made, a false statement to get a false claim paid. Pharmaceutical companies have been prosecuted under these laws for a variety of alleged promotional and marketing activities, such as providing free product to customers with the expectation that the customers would bill federal programs for the product; reporting to pricing services inflated average wholesale prices that were then used by federal programs to set reimbursement rates; engaging in off-label promotion that caused claims to be submitted to Medicaid for non-covered off-label uses; and submitting inflated best price information to the Medicaid Drug Rebate Program.

The Health Insurance Portability and Accountability Act of 1996 also created prohibitions against healthcare fraud and false statements relating to healthcare matters. The healthcare fraud statute prohibits knowingly and willfully executing a scheme to defraud any healthcare benefit program, including private payers. The false statements statute prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services.

In addition, there has been a recent trend of increased federal and state regulation of payments made to physicians. The ACA imposed new requirements on manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to report annually to CMS information related to payments or other "transfers of value" made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, and applicable manufacturers and group purchasing organizations to report annually to CMS ownership and investment interests held by physicians (as defined above) and their immediate family members and payments or other "transfers of value" to such physician owners and their immediate family members. Manufacturers are required to report such data to the government by the 90th calendar day of each year.

The majority of states also have statutes or regulations similar to these federal laws, which apply to items and services reimbursed under Medicaid and other state programs or, in several states, apply regardless of the payer. In addition, some states have laws that require pharmaceutical companies to adopt comprehensive compliance programs. For example, under California law, pharmaceutical companies must comply with both the April 2003 Office of Inspector General Compliance Program Guidance for Pharmaceutical Manufacturers and the PhRMA Code on Interactions with Healthcare Professionals, as amended. Certain states also mandate the tracking and reporting of gifts, compensation, and other remuneration paid by us to physicians and other healthcare providers.

Although compliance programs can mitigate the risk of investigation and prosecution for violations of these laws, the risks cannot be entirely eliminated. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. Moreover, achieving and sustaining compliance with applicable federal and state laws may prove costly.

Because of the breadth of these laws and the narrowness of the safe harbors, it is possible that some of our business activities could be subject to challenge under one or more of such laws. The ACA also made several important changes to the federal anti-kickback statute, false claims laws, and healthcare fraud statute by weakening the intent requirement under the anti-kickback and healthcare fraud statutes that may make it easier for the government, or whistleblowers to charge such fraud and abuse violations. A person or entity no longer needs to have actual knowledge of this statute or specific intent to violate it. In addition, the ACA provides that the government may assert that a claim including items or services resulting from a violation of the federal anti-kickback statute constitutes a false or fraudulent claim for purposes of the false claims statutes. In addition, the ACA increases penalties for fraud and abuse violations. If our past, present or future operations are found to be in violation of any of the laws described above or other similar governmental regulations to which we are subject, we may be subject to significant civil, criminal and administrative penalties, damages, fines, imprisonment, exclusion from government funded healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and negatively impact our financial results.

If our products do not gain market acceptance, we may be unable to generate significant revenues.

Even if our products are approved for commercialization, they may not be successful in the marketplace. Market acceptance of any of our products will depend on a number of factors, including, but not limited to:

- demonstration of clinical efficacy and safety;
- the prevalence and severity of any adverse side effects;
- limitations or warnings contained in the product's approved labeling;
- availability of alternative treatments for the indications we target;
- the advantages and disadvantages of our products relative to current or alternative treatments;
- the availability of acceptable pricing and adequate third-party reimbursement; and
- the effectiveness of marketing and distribution methods for the products.

If our products do not gain market acceptance among physicians, patients, healthcare payers and others in the medical community, who may not accept or utilize our products, our ability to generate significant revenues from our products would be limited and our financial condition could be materially adversely affected. In addition, if we fail to further penetrate our core markets and existing geographic markets or to successfully expand our business into new markets, the growth in sales of our products, along with our operating results, could be negatively impacted.

Our ability to further penetrate our core markets and existing geographic markets in which we compete or to successfully expand our business into additional countries in Europe, Asia or elsewhere is subject to numerous factors, many of which are beyond our control. Our products, if successfully developed, may compete with a number of drugs, therapies, products and tests currently manufactured and marketed by major pharmaceutical and other biotechnology companies. Our products may also compete with new products currently under development by others or with products which may be less expensive than our products. There can be no assurance that our efforts to increase market penetration in our core markets and existing geographic markets will be successful. Our failure to do so could have an adverse effect on our operating results and would likely cause a drop in the price of our securities.



We may expend our limited resources to pursue a particular product candidate or indication and fail to capitalize on product candidates or indications for which there may be a greater likelihood of success.

Because we have limited financial and managerial resources, we are currently focusing our efforts on our later-stage clinical research programs, zoptarelin doxorubicin and Macrilen™ (macimorelin acetate), and we are doing so for specific indications. As a result, we may forego or delay pursuit of opportunities with other product candidates or for other indications for which there may be a greater likelihood of success or may prove to have greater commercial potential. Notwithstanding our investment to date and anticipated future expenditures on zoptarelin doxorubicin, Macrilen™ (macimorelin acetate) and our earlier-stage programs, we have not yet developed, and may never successfully develop, any marketed treatments using these products. Research programs to identify new product candidates or pursue alternative indications for current product candidates require substantial technical, financial and human resources. These activities may initially show promise in identifying potential product candidates or indications, yet fail to yield product candidates or indications for further clinical development.

We may not achieve our projected development goals in the time-frames we announce and expect.

We set goals and make public statements regarding the timing of the accomplishment of objectives material to our success, such as the commencement, enrollment and anticipated completion of clinical trials, anticipated regulatory submission and approval dates and time of product launch. The actual timing of these events can vary dramatically due to factors such as delays or failures in our clinical trials, the uncertainties inherent in the regulatory approval process and delays in achieving manufacturing or marketing arrangements sufficient to commercialize our products. There can be no assurance that our clinical trials will be completed, that we will make regulatory submissions or receive regulatory approvals as planned or that we will be able to adhere to our current schedule for the launch of any of our products. If we fail to achieve one or more of these milestones as planned, the price of our securities would likely decline.

If we fail to obtain acceptable prices or adequate reimbursement for our products, our ability to generate revenues will be diminished.

Our ability to successfully commercialize our products will depend significantly on our ability to obtain acceptable prices and the availability of reimbursement to the patient from third-party payers, such as governmental and private insurance plans. These third-party payers frequently require companies to provide predetermined discounts from list prices, and they are increasingly challenging the prices charged for pharmaceuticals and other medical products. Our products may not be considered cost-effective, and reimbursement to the patient may not be available or sufficient to allow us to sell our products on a competitive basis. It may not be possible to negotiate favorable reimbursement rates for our products. Adverse pricing and reimbursement conditions would also likely diminish our ability to induce third parties to co-promote our products.

In addition, the continuing efforts of third-party payers to contain or reduce the costs of healthcare through various means may limit our commercial opportunity and reduce any associated revenue and profits. We expect proposals to implement similar government controls to continue. In addition, increasing emphasis on managed care will continue to put pressure on the pricing of pharmaceutical and biopharmaceutical products. Cost control initiatives could decrease the price that we or any current or potential collaborators could receive for any of our products and could adversely affect our profitability. In addition, in the U.S., in Canada and in many other countries, pricing and/or profitability of some or all prescription pharmaceuticals and biopharmaceuticals are subject to government control.

If we fail to obtain acceptable prices or an adequate level of reimbursement for our products, the sales of our products would be adversely affected or there may be no commercially viable market for our products.

Competition in our targeted markets is intense, and development by other companies could render our products or technologies non-competitive.

The biopharmaceutical field is highly competitive. New products developed by other companies in the industry could render our products or technologies non-competitive. Competitors are developing and testing products and technologies that would compete with the products that we are developing. Some of these products may be more effective or have an entirely different approach or means of accomplishing the desired effect than our products. We expect competition from pharmaceutical and biopharmaceutical companies and academic research institutions to continue to increase over time. Many of our competitors and potential competitors have substantially greater product

development capabilities and financial, scientific, marketing and human resources than we do. Our competitors may succeed in developing products earlier and in obtaining regulatory approvals and patent protection for such products more rapidly than we can or at a lower price.

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We may not obtain adequate protection for our products through our intellectual property.

We rely heavily on our proprietary information in developing and manufacturing our product candidates. Our success depends, in large part, on our ability to protect our competitive position through patents, trade secrets, trademarks and other intellectual property rights. The patent positions of pharmaceutical and biopharmaceutical firms, including us, are uncertain and involve complex questions of law and fact for which important legal issues remain unresolved. We have filed and are pursuing applications for patents and trademarks in Canada, the U.S. and in other territories. Pending patent applications may not result in the issuance of patents and we may not be able to obtain additional issued patents relating to our technology or products.

The laws of some countries do not protect intellectual property rights to the same extent as the laws of the U.S. and Canada. Many companies have encountered significant problems in protecting and defending such rights in foreign jurisdictions. Many countries, including certain countries in Europe, have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In addition, many countries limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of the patent. Compulsory licensing of life-saving drugs is also becoming increasingly popular in developing countries either through direct legislation or international initiatives. Such compulsory licenses could be extended to include some of our product candidates, which could limit our potential revenue opportunities. Moreover, the legal systems of certain countries, particularly certain developing countries, do not favor the aggressive enforcement of patent and other intellectual property protection, which makes it difficult to stop infringement.

Our patents and/or the patents that we license from others may be challenged, narrowed, invalidated, held to be unenforceable or circumvented, which could limit our ability to stop competitors from marketing similar products or limit the length of term of patent protection we may have for our products. Changes in either patent laws or in interpretations of patent laws in the U.S. and other countries may diminish the value of our intellectual property or narrow the scope of our patent protection. The patents issued or to be issued to us may not provide us with any competitive advantage or protect us against competitors with similar technology. In addition, it is possible that third parties with products that are very similar to ours will circumvent our patents by means of alternate designs or processes. We may have to rely on method-of-use and new-formulation protection for our compounds in development, and any resulting products, which may not confer the same protection as claims to compounds per se.

In addition, our patents may be challenged by third parties in patent litigation, which is becoming widespread in the biopharmaceutical industry. There may be prior art of which we are not aware that may affect the validity or enforceability of a patent claim. There may also be prior art of which we are aware, but which we do not believe affects the validity or enforceability of a claim, which may, nonetheless, ultimately be found to affect the validity or enforceability of a claim. No assurance can be given that our patents would, if challenged, be held by a court to be valid or enforceable or that a competitor's technology or product would be found by a court to infringe our patents. Our granted patents could also be challenged and revoked in U.S. post-grant proceedings as well as in opposition or nullity proceedings in certain countries outside the U.S. In addition, we may be required to disclaim part of the term of certain patents.

Patent applications relating to or affecting our business have been filed by a number of pharmaceutical and biopharmaceutical companies and academic institutions. A number of the technologies in these applications or patents may conflict with our technologies, patents or patent applications, and any such conflict could reduce the scope of patent protection which we could otherwise obtain. Because patent applications in the U.S. and many other jurisdictions are typically not published until eighteen months after their first effective filing date, or in some cases not at all, and because publications of discoveries in the scientific literature often lag behind actual discoveries, we cannot be certain that we were the first to make the inventions claimed in issued patents or pending patent applications, or that we were the first to file for protection of the inventions set forth in the patent applications. If a third party has also filed a patent application in the U.S. covering our product candidates or a similar invention, we may have to participate in adversarial proceedings, such as interferences and deviation proceedings, before the United States Patent and Trademark Office to determine which party is entitled to a U.S. patent claiming the disputed invention. The costs of these proceedings could be substantial and it is possible that our efforts could be unsuccessful, resulting in a loss of

our U.S. patent position.

Furthermore, the product development timeline for our products is lengthy and it is possible that our issued patents covering our product candidates in the United States and other jurisdictions may expire prior to commercial launch of the products. The patent that covers the compound zoptarelin doxorubicin and other related targeted cytotoxic anthracycline analogues, pharmaceutical compositions comprising the compounds as well as their medical use for the treatment of cancer will expire in the United States in November 2015 and in the EU, Japan, China and Hong Kong in November 2016. As a result, our ability to protect this compound from competition will be based on the protections provided in the United States for new chemical entities and similar protections, if any, provided in other countries. We cannot assure you that zoptarelin doxorubicin or any of our other drug candidates will obtain new chemical entity exclusivity or any other market exclusivity in the U.S., the EU or any

other territory, or that we will be the first to receive the respective regulatory approval for such drugs so as to be eligible for any market exclusivity protection.

We also rely on trade secrets and proprietary know-how to protect our intellectual property. If we are unable to protect the confidentiality of our proprietary information and know-how, the value of our technology and products could be adversely affected. We seek to protect our unpatented proprietary information in part by requiring our employees, consultants, outside scientific collaborators and sponsored researchers and other advisors to enter into confidentiality agreements. These agreements provide that all confidential information developed or made known to the individual during the course of the individual's relationship with us is to be kept confidential and not disclosed to third parties except in specific circumstances. In the case of our employees, the agreements provide that all of the technology which is conceived by the individual during the course of employment is our exclusive property. These agreements may not provide meaningful protection or adequate remedies in the event of unauthorized use or disclosure of our proprietary information. In addition, it is possible that third parties could independently develop proprietary information and techniques substantially similar to ours or otherwise gain access to our trade secrets. If we are unable to protect the confidentiality of our proprietary information and know-how, competitors may be able to use this information to develop products that compete with our products and technologies, which could adversely impact our business.

We currently have the right to use certain patents and technologies under license agreements with third parties. Our failure to comply with the requirements of one or more of our license agreements could result in the termination of such agreements, which could cause us to terminate the related development program and cause a complete loss of our investment in that program. Inventions claimed in certain in-licensed patents may have been made with funding from the U.S. government and may be subject to the rights of the U.S. government and we may be subject to additional requirements in the event we seek to commercialize or manufacture product candidates incorporating such in-licensed technology.

As a result of the foregoing factors, we may not be able to rely on our intellectual property to protect our products in the marketplace.

We may infringe the intellectual property rights of others.

Our commercial success depends significantly on our ability to operate without infringing the patents and other intellectual property rights of third parties. There could be issued patents of which we are not aware that our products or methods may be found to infringe, or patents of which we are aware and believe we do not infringe but which we may ultimately be found to infringe. Moreover, patent applications and their underlying discoveries are in some cases maintained in secrecy until patents are issued. Because patents can take many years to issue, there may be currently pending applications of which we are unaware that may later result in issued patents that our products or technologies are found to infringe. Moreover, there may be published pending applications that do not currently include a claim covering our products or technologies but which nonetheless provide support for a later drafted claim that, if issued, our products or technologies could be found to infringe.

If we infringe or are alleged to infringe intellectual property rights of third parties, it will adversely affect our business. Our research, development and commercialization activities, as well as any product candidates or products resulting from these activities, may infringe or be accused of infringing one or more claims of an issued patent or may fall within the scope of one or more claims in a published patent application that may subsequently be issued and to which we do not hold a license or other rights. Third parties may own or control these patents or patent applications in the U.S. and abroad. These third parties could bring claims against us or our collaborators that would cause us to incur substantial expenses and, if successful against us, could cause us to pay substantial damages. Further, if a patent infringement suit were brought against us or our collaborators, we or they could be forced to stop or delay research, development, manufacturing or sales of the product or product candidate that is the subject of the suit.

The biopharmaceutical industry has produced a proliferation of patents, and it is not always clear to industry participants, including us, which patents cover various types of products. The coverage of patents is subject to interpretation by the courts, and the interpretation is not always uniform. In the event of infringement or violation of another party's patent or other intellectual property rights, we may not be able to enter into licensing arrangements or make other arrangements at a reasonable cost. Any inability to secure licenses or alternative technology could result in

delays in the introduction of our products or lead to prohibition of the manufacture or sale of products by us or our partners and collaborators.

Patent litigation is costly and time consuming and may subject us to liabilities.

If we become involved in any patent litigation, interference, opposition or other administrative proceedings we will likely incur substantial expenses in connection therewith, and the efforts of our technical and management personnel will be significantly diverted. In addition, an adverse determination in litigation could subject us to significant liabilities.

We may not obtain trademark registrations for our product candidates.

We have filed applications for trademark registrations in connection with our product candidates in various jurisdictions, including the U.S. We intend to file further applications for other possible trademarks for our product candidates. No assurance can be given that any of our trademark applications will be registered in the U.S. or elsewhere, or that the use of any registered or unregistered trademarks will confer a competitive advantage in the marketplace. Furthermore, even if we are successful in our trademark registrations, the FDA and regulatory authorities in other countries have their own process for drug nomenclature and their own views concerning appropriate proprietary names. The FDA and other regulatory authorities also have the power, even after granting market approval, to request a company to reconsider the name for a product because of evidence of confusion in the marketplace. No assurance can be given that the FDA or any other regulatory authority will approve any of our trademarks or will not request reconsideration of one of our trademarks at some time in the future. The loss, abandonment, or cancellation of any of our trademarks or trademark applications could negatively affect the success of the product candidates to which they relate.

Our revenues and expenses may fluctuate significantly, and any failure to meet financial expectations may disappoint securities analysts or investors and result in a decline in the price of our securities.

We have a history of operating losses. Our revenues and expenses have fluctuated in the past and may continue to do so in the future. These fluctuations could cause our share price to decline. Some of the factors that could cause our revenues and expenses to fluctuate include but are not limited to:

- the inability to complete product development in a timely manner that results in a failure or delay in receiving the required regulatory approvals to commercialize our product candidates;
- the timing of regulatory submissions and approvals;
- the timing and willingness of any current or future collaborators to invest the resources necessary to commercialize our product candidates;
- the revenue available from royalties derived from our licensees;
- the nature and timing of licensing fee revenues;
- the nature and timing of tax credits and grants for our research and development activities;
- the outcome of litigation, including the litigation pending against us that is described elsewhere in this Annual Report on Form 20-F;
- changes in foreign currency fluctuations;
- the timing of achievement and the receipt of milestone payments from current or future collaborators;
- failure to enter into new or the expiration or termination of current agreements with collaborators;
- and
- our ability to secure alternative leasing or subleasing arrangements for our underutilized offices in Frankfurt, Germany, and to achieve related cost savings with respect to our current lease obligations.

Due to fluctuations in our revenues and expenses, we believe that period-to-period comparisons of our results of operations are not necessarily indicative of our future performance. It is possible that in some future quarter or quarters, our revenues and expenses will be above or below the expectations of securities analysts or investors. In this case, the price of our securities could fluctuate significantly or decline.

We are currently dependent on certain third parties with which we have significant contractual relationships and we may enter into future collaborations for the R&D of our product candidates.

We are currently dependent on certain third parties with which we have significant contractual relationships and may enter into future collaborations for the R&D of our product candidates. Our arrangements with these third parties may not provide us with the benefits we expect and may expose us to a number of risks.

We are dependent on, and rely upon, third parties to perform various functions related to our business, including, but not limited to, research and development with respect to some of our product candidates. Our reliance on these relationships poses a number of risks.

We may not realize the contemplated benefits of such agreements nor can we be certain that any of these parties will fulfill their obligations in a manner which maximizes our revenue. These arrangements may also require us to transfer certain material rights or to issue our equity, voting or other securities to third parties. Any license or sublicense of our commercial rights may reduce our product revenue.

These agreements create certain additional risks. The occurrence of any of the following or other events may delay product development or impair commercialization of our products:

- not all of the third parties are contractually prohibited from developing or commercializing, either alone or with others, products and services that are similar to or competitive with our product candidates and, with respect to our contracts that do contain such contractual prohibitions or restrictions, prohibitions or restrictions do not always apply to the affiliates of the third parties and they may elect to pursue the development of any additional product candidates and pursue technologies or products either on their own or in collaboration with other parties, including our competitors, whose technologies or products may be competitive with ours;
- the third parties may under-fund or fail to commit sufficient resources to marketing, distribution or other development of our products;
- the third parties may cease to conduct business for financial or other reasons;
- we may not be able to renew such agreements;
- the third parties may not properly maintain or defend certain intellectual property rights that may be important to the commercialization of our products;
- the third parties may encounter conflicts of interest, changes in business strategy or other issues which could adversely affect their willingness or ability to fulfill their obligations to us (for example, pharmaceutical companies historically have re-evaluated their priorities following mergers and consolidations, which have been common in recent years in this industry);
- delays in, or failures to achieve, scale-up to commercial quantities, or changes to current raw material suppliers or product manufacturers (whether the change is attributable to us or the supplier or manufacturer) could delay clinical studies, regulatory submissions and commercialization of our product candidates; and
- disputes may arise between us and the third parties that could result in the delay or termination of the development or commercialization of our product candidates, resulting in litigation or arbitration that could be time-consuming and expensive, or causing the third parties to act in their own self-interest and not in our interest or those of our shareholders or other stakeholders.

In addition, the third parties can terminate our agreements with them for a number of reasons based on the terms of the individual agreements that we have entered into with them. If one or more of these agreements were to be terminated, we would be required to devote additional resources to developing and commercializing our product candidates, seek a new third party with which to contract or abandon the product candidate, which would likely cause a drop in the price of our securities.

We rely on third parties to conduct, supervise and monitor our clinical trials, and those third parties may not perform satisfactorily.

We rely on third parties such as CROs, medical institutions and clinical investigators to enroll qualified patients and conduct, supervise and monitor our clinical trials. Our reliance on these third parties for clinical development activities reduces our control over these activities. Our reliance on these third parties, however, does not relieve us of our regulatory responsibilities, including ensuring that our clinical trials are conducted in accordance with Good Clinical Practice guidelines and the investigational plan and protocols contained in an Investigational New Drug ("IND") application, or a comparable foreign regulatory submission. Furthermore, these third parties may also have relationships with other entities, some of which may be our competitors. In addition, they may not complete activities on schedule, or may not conduct our preclinical studies or clinical trials in accordance with regulatory requirements or our trial design. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, our efforts to obtain regulatory approvals for, and commercialize, our product candidates may be delayed or prevented.



In carrying out our operations, we are dependent on a stable and consistent supply of ingredients and raw materials. There can be no assurance that we, our contract manufacturers or our licensees will be able, in the future, to continue to purchase products from our current suppliers or any other supplier on terms similar to current terms or at all. An interruption in the availability of certain raw materials or ingredients, or significant increases in the prices we pay for them, could have a material adverse effect on our business, financial condition, liquidity and operating results. The failure to perform satisfactorily by third parties upon which we rely to manufacture and supply products may lead to supply shortfalls.

We will rely on third parties to manufacture and supply marketed products. To be successful, our products have to be manufactured in commercial quantities in compliance with quality controls and regulatory requirements. Even though it is our objective to minimize such risk by introducing alternative suppliers to ensure a constant supply at all times, there are a limited number of contract manufacturers or suppliers that are capable of manufacturing our product candidates or the materials used in their manufacture. If we are unable to do so ourselves or to arrange for third-party manufacturing or supply of these product candidates or materials, or to do so on commercially reasonable terms, we may not be able to complete development of these product candidates or commercialize them ourselves or through our licensees. Reliance on third-party manufacturers entails risks to which we would not be subject if we manufactured products ourselves, including reliance on the third party for regulatory compliance, the possibility of breach of the manufacturing agreement by the third party because of factors beyond our control, and the possibility of termination or non-renewal of the agreement by the third party, based on its own business priorities, at a time that is costly or inconvenient for us.

We are subject to intense competition for our skilled personnel, and the loss of key personnel or the inability to attract additional personnel could impair our ability to conduct our operations.

We are highly dependent on our management and our clinical, regulatory and scientific staff, the loss of whose services might adversely impact our ability to achieve our objectives. Recruiting and retaining qualified management and clinical, scientific and regulatory personnel is critical to our success. Reductions in our staffing levels have eliminated redundancies in key capabilities and skill sets among our full-time staff and required us to rely more heavily on outside consultants and third parties. We have been unable to increase the compensation of our associates to the extent required to remain fully competitive for their services, which increased our employee retention risk. The competition for qualified personnel in the biopharmaceutical field is intense, and if we are not able to continue to attract and retain qualified personnel and/or maintain positive relationships with our outside consultants, we may not be able to achieve our strategic and operational objectives.

We are currently subject to securities class action litigation and we may be subject to similar or other litigation in the future.

We and certain of our current and former officers are defendants in a purported class-action lawsuit pending in the United States District Court for the District of New Jersey, brought on behalf of certain shareholders. The lawsuit alleges violations of the Securities Exchange Act of 1934 in connection with allegedly false and misleading statements made by the defendants between October 18, 2012 and November 6, 2014, or the Class Period, regarding the safety and efficacy of Macrilen™, a product we developed for use in the diagnosis of Adult Growth Hormone Deficiency ("AGHD"), and the prospects for the approval of our new drug application for the product by the FDA. The plaintiffs seek to represent a class comprised of purchasers of our Common Shares during the Class Period and seek damages, costs and expenses and such other relief as determined by the Court.

While we believe we have meritorious defenses and intend to defend this lawsuit vigorously, we cannot predict the outcome. Furthermore, we may, from time to time, be parties to other litigation in the normal course of business. Monitoring and defending against legal actions, whether or not meritorious, is time-consuming for our management and detracts from our ability to fully focus our internal resources on our business activities. In addition, legal fees and costs incurred in connection with such activities may be significant and we could, in the future, be subject to judgments or enter into settlements of claims for significant monetary damages. A decision adverse to our interests could result in the payment of substantial damages and could have a material adverse effect on our cash flow, results of operations and financial position.

With respect to any litigation, our insurance may not reimburse us or may not be sufficient to reimburse us for the expenses or losses we may suffer in contesting and concluding such lawsuit. Substantial litigation costs or an adverse result in any litigation may adversely impact our business, operating results or financial condition. We believe that our directors' and officers' liability insurance will cover our potential liability with respect to the securities class action lawsuit described above; however, the insurer has reserved its rights to contest the applicability of the insurance to such claim, the limits of the insurance may be insufficient to cover our eventual liability, and we will be required to satisfy a substantial self-insured retention before any insurance coverage applies to the claim.

We are subject to the risk of product liability claims, for which we may not have or be able to obtain adequate insurance coverage.

The sale and use of our products involve the risk of product liability claims and associated adverse publicity. Our risks relate to human participants in our clinical trials, who may suffer unintended consequences, as well as products on the market whereby claims might be made directly by patients, healthcare providers or pharmaceutical companies or others selling, buying or using our products. We manage our liability risks by means of insurance. We maintain liability insurance covering our liability for our preclinical and clinical studies and for our pharmaceutical products already marketed. However, we may not have or be able to obtain or maintain sufficient and affordable insurance coverage, including coverage for potentially very significant legal expenses, and without sufficient coverage any claim brought against us could have a materially adverse effect on our business, financial condition or results of operations. Our business involves the use of hazardous materials. We are required to comply with environmental and occupational safety laws regulating the use of such materials. If we violate these laws, we could be subject to significant fines, liabilities or other adverse consequences.

Our discovery and development processes involve the controlled use of hazardous and radioactive materials. We are subject to federal, provincial and local 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. In the event of an accident or a failure to comply with environmental or occupational safety laws, we could be held liable for any damages that result, and any such liability could exceed our resources. We may not be adequately insured against this type of liability. We may be required to incur significant costs to comply with environmental laws and regulations in the future, and our operations, business or assets may be materially adversely affected by current or future environmental laws or regulations.

We are a holding company, and claims of creditors of our subsidiaries will generally have priority as to the assets of such subsidiaries over our claims and those of our creditors and shareholders.

Aeterna Zentaris Inc. is a holding company and a substantial portion of our non-cash assets is the share capital of our subsidiaries. Aeterna Zentaris GmbH ("AEZS GmbH"), our principal operating subsidiary, based in Frankfurt, Germany, holds most of our intellectual property rights, which represent the principal assets of our business.

Because Aeterna Zentaris Inc. is a holding company, our obligations to our creditors are structurally subordinated to all existing and future liabilities of our subsidiaries. Therefore, our rights and the rights of our creditors to participate in any distribution of the assets of any subsidiary in the event that such subsidiary were to be liquidated or reorganized or in the event of any bankruptcy or insolvency proceeding relating to or involving such subsidiary, and therefore the rights of the holders of our Common Shares to participate in those assets, are subject to the prior claims of such subsidiary's creditors. To the extent that we may be a creditor with recognized claims against any such subsidiary, our claims would still be subject to the prior claims of our subsidiary's creditors to the extent that they are secured or senior to those held by us.

Holders of our Common Shares are not creditors of our subsidiaries. Claims to the assets of our subsidiaries will derive from our own ownership interest in those operating subsidiaries. Claims of our subsidiaries' creditors will generally have priority as to the assets of such subsidiaries over our own ownership interest claims and will therefore have priority over the holders of our Common Shares. Our subsidiaries' creditors may from time to time include general creditors, trade creditors, employees, secured creditors, taxing authorities, and creditors holding guarantees. Accordingly, in the event of any foreclosure, dissolution, winding-up, liquidation or reorganization, or a bankruptcy or insolvency proceeding relating to us or our property, or any subsidiary, there can be no assurance as to the value, if any, that would be available to holders of our Common Shares.

In addition, any distributions to us by our subsidiaries could be subject to monetary transfer restrictions in the jurisdictions in which our subsidiaries operate.

Our subsidiaries may incur additional indebtedness and other liabilities.

It may be difficult for U.S. investors to obtain and enforce judgments against us because of our Canadian incorporation and German presence.

We are a company existing under the laws of Canada. Many of our directors and officers, and certain of the experts named herein, are residents of Canada or otherwise reside outside the U.S., and all or a substantial portion of their

assets, and a substantial portion of our assets, are located outside the U.S. Consequently, although we have appointed an agent for service of process in the U.S., it may be difficult for investors in the U.S. to bring an action against such directors, officers or experts or to

enforce against those persons or us a judgment obtained in a U.S. court predicated upon the civil liability provisions of federal securities laws or other laws of the U.S. Investors should not assume that foreign courts (1) would enforce judgments of U.S. courts obtained in actions against us or such directors, officers or experts predicated upon the civil liability provisions of the U.S. federal securities laws or the securities or "blue sky" laws of any state within the U.S. or (2) would enforce, in original actions, liabilities against us or such directors, officers or experts predicated upon the U.S. federal securities laws or any such state securities or "blue sky" laws. In addition, we have been advised by our Canadian counsel that in normal circumstances, only civil judgments and not other rights arising from U.S. securities legislation (for example, penal or similar awards made by a court in a regulatory prosecution or proceeding) are enforceable in Canada and that the protections afforded by Canadian securities laws may not be available to investors in the U.S.

Healthcare reform measures could hinder or prevent the commercial success of our product candidates and adversely affect our business.

The business prospects and financial condition of pharmaceutical and biotechnology companies are affected by the efforts of governmental and third-party payers to contain or reduce the costs of healthcare. In the U.S. and in other jurisdictions there have been, and we expect that there will continue to be, a number of legislative and regulatory proposals aimed at changing the healthcare system, such as proposals relating to the pricing of healthcare products and services in the U.S. or internationally, the reimportation of drugs into the U.S. from other countries (where they are then sold at a lower price), and the amount of reimbursement available from governmental agencies or other third party payers. For example, drug manufacturers are required to have a national rebate agreement with the Department of Health and Human Services in order to obtain state Medicaid coverage, which requires manufacturers to pay a rebate on drugs dispensed to Medicaid patients.

The ACA may have far-reaching consequences for most healthcare companies, including specialty biopharmaceutical companies like us. For example, if reimbursement for our product candidates is substantially less than we expect, our revenue prospects could be materially and adversely impacted.

Regardless of the impact of the ACA on us, the U.S. government and other governments have shown significant interest in pursuing healthcare reform and reducing healthcare costs. Any government-adopted reform measures could cause significant pressure on the pricing of healthcare products and services, including our product candidates, in the United States and internationally, as well as the amount of reimbursement available from governmental agencies and other third-party payors.

In addition, on September 27, 2007, the Food and Drug Administration Amendments Act of 2007 was enacted, giving the FDA enhanced post-market authority, including the authority to require post-marketing studies and clinical trials, labeling changes based on new safety information, and compliance with risk evaluations and mitigation strategies approved by the FDA. The FDA's exercise of this authority may result in delays or increased costs during the period of product development, clinical trials and regulatory review and approval, which may also increase costs related to complying with new post-approval regulatory requirements, and increase potential FDA restrictions on the sale or distribution of approved products.

We are subject to various internal-control reporting requirements under applicable Canadian securities laws and the Sarbanes-Oxley Act in the United States. We can provide no assurance that we will at all times in the future be able to report that our internal controls over financial reporting are effective.

As a public company, we are required to comply with Section 404 of the U.S. Sarbanes-Oxley Act ("Section 404") and National Instrument 52-109 – Certification of Disclosure in Issuers' Annual and Interim Filings, and we are required to obtain an annual attestation from our independent auditors regarding our internal control over financial reporting. In any given year, we cannot be certain as to the time of completion of our internal control evaluation, testing and remediation actions or of their impact on our operations. Upon completion of this process, we may identify control deficiencies of varying degrees of severity under applicable SEC and Public Company Accounting Oversight Board rules and regulations. As a public company, we are required to report, among other things, control deficiencies that constitute material weaknesses or changes in internal controls that, or that are reasonably likely to, materially affect internal controls over financial reporting. A "material weakness" is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material

misstatement of the Company's annual consolidated financial statements will not be prevented or detected on a timely basis. If we fail to comply with the requirements of Section 404, similar Canadian requirements or if we report a material weakness, we might be subject to regulatory sanction and investors may lose confidence in our consolidated financial statements, which may be inaccurate if we fail to remedy such material weakness.

It is possible that we may be a passive foreign investment company, which could result in adverse tax consequences to U.S. investors.

Adverse U.S. federal income tax rules apply to "U.S. Holders" (as defined in "Item 10.E – Taxation – Certain Material U.S. Federal Income Tax Considerations" in this Annual Report on Form 20-F) that directly or indirectly hold common shares of a passive foreign investment company ("PFIC"). We will be classified as a PFIC for U.S. federal income tax purposes for a taxable year if (i) at least 75% of our gross income is "passive income" or (ii) at least 50% of the average value of our assets, including goodwill (based on annual quarterly average), is attributable to assets which produce passive income or are held for the production of passive income.

We believe that we were not a PFIC for the 2014 taxable year. However, the PFIC determination depends on the application of complex U.S. federal income tax rules concerning the classification of our assets and income for this purpose, and these rules are uncertain in some respects. In addition, the fair market value of our assets may be determined in large part by the market price of our Common Shares, which is likely to fluctuate, and the composition of our income and assets will be affected by how, and how quickly, we spend any cash that is raised in any financing transaction. No assurance can be provided that we will not be classified as a PFIC for the 2015 taxable year and for any future taxable year.

PFIC characterization could result in adverse U.S. federal income tax consequences to U.S. Holders. In particular, absent certain elections, a U.S. Holder would generally be subject to U.S. federal income tax at ordinary income tax rates, plus a possible interest charge, in respect of a gain derived from a disposition of our Common Shares, as well as certain distributions by us. If we are treated as a PFIC for any taxable year, a U.S. Holder may be able to make an election to "mark to market" Common Shares each taxable year and recognize ordinary income pursuant to such election based upon increases in the value of the Common Shares. In addition, U.S. Holders may mitigate the adverse tax consequences of the PFIC rules by making a "qualified electing fund" ("QEF") election; however, we do not expect to provide the information regarding our income that would be necessary for a U.S. Holder to make a QEF election.

If we are a PFIC, U.S. Holders will generally be required to file an annual information return with the Internal Revenue Service (the "IRS") (on IRS Form 8621, which PFIC shareholders will be required to file with their U.S. federal income tax or information returns) relating to their ownership of Common Shares. This filing requirement is in addition to any preexisting reporting requirements that apply to a U.S. Holder's interest in a PFIC (which this requirement does not affect).

For a more detailed discussion of the potential tax impact of us being a PFIC, see "Item 10.E – Taxation – Certain Material U.S. Federal Income Tax Considerations" in this Annual Report on Form 20-F. The PFIC rules are complex. U.S. Holders should consult their tax advisors regarding the potential application of the PFIC regime and any reporting obligations to which they may be subject under that regime.

We may incur losses associated with foreign currency fluctuations.

Our operations are in many instances conducted in currencies other than our functional currency or the functional currencies of our subsidiaries. Fluctuations in the value of currencies could cause us to incur currency exchange losses. We do not currently employ a hedging strategy against exchange rate risk. We cannot assert with any assurance that we will not suffer losses as a result of unfavorable fluctuations in the exchange rates between the US dollar, the Euro, the Canadian dollar and other currencies. For more information, see "Item 11. – Quantitative and Qualitative Disclosures About Market Risk" in this Annual Report on Form 20-F.

Legislative actions, new accounting pronouncements and higher insurance costs may impact our future financial position or results of operations.

Changes in financial accounting standards or implementation of accounting standards may cause adverse, unexpected revenue or expense fluctuations and affect our financial position or results of operations. New pronouncements and varying interpretations of pronouncements have occurred with greater frequency and are expected to occur in the future, and we may make or be required to make changes in our accounting policies in the future. Compliance with changing regulations of corporate governance and public disclosure, notably with respect to internal controls over financial reporting, may result in additional expenses. Changing laws, regulations and standards relating to corporate governance and public disclosure are creating uncertainty for companies such as ours, and insurance costs are

increasing as a result of this uncertainty.

Security breaches may disrupt our operations and adversely affect our operating results.

Our network security and data recovery measures and those of third parties with which we contract, may not be adequate to protect against computer viruses, cyber-attacks, break-ins, and similar disruptions from unauthorized tampering with our computer systems. The misappropriation, theft, sabotage or any other type of security breach with respect to any of our

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proprietary and confidential information that is electronically stored, including research or clinical data, could cause interruptions in our operations, and could result in a material disruption of our clinical activities and business operations, in addition to possibly requiring substantial expenditures of resources to remedy. This disruption could have a material adverse impact on our business, operating results and financial condition. Additionally, any break-in or trespass of our facilities that results in the misappropriation, theft, sabotage or any other type of security breach with respect to our proprietary and confidential information, including research or clinical data, or that results in damage to our research and development equipment and assets could have a material adverse impact on our business, operating results, and financial condition.

#### Risks Relating to our Common Shares

Our Common Shares may be delisted from The Nasdaq Capital Market or the Toronto Stock Exchange, which could affect its market price and liquidity. If our Common Shares were to be delisted, investors may have difficulty in disposing of their shares.

Our Common Shares are currently listed on The Nasdaq Capital Market ("Nasdaq") under the symbol "AEZS" and on the Toronto Stock Exchange ("TSX") under the symbol "AEZ". We must meet continuing listing requirements to maintain the listing of our Common Shares on NASDAQ and TSX. For continued listing, NASDAQ requires, among other things, that listed securities maintain a minimum closing bid price of not less than \$1.00 per share. On December 19, 2014, we received a notice from The NASDAQ Listing Qualifications Department indicating that the minimum bid price for our Common Shares had fallen below \$1.00 for 30 consecutive business days, and that, therefore, we were no longer in compliance with NASDAQ Marketplace Rule 5550(a)(2) - bid price. We have 180 calendar days, or until June 16, 2015, to regain compliance with the minimum bid price requirement. To regain compliance, the closing bid price of our Common Shares must be at least \$1.00 per share for a minimum of 10 consecutive business days. The notice did not impact our listing on The NASDAQ Capital Market when it was issued. If we are not able to regain compliance, NASDAQ would notify us that our securities are subject to delisting. At that time, we could appeal the determination to delist our Common Shares to a Listing Qualifications Panel.

In addition to the minimum bid price requirement, the continued listing rules of NASDAQ require us to meet at least one of the following listing standards: (i) stockholders' equity of at least \$2.5 million (the "Equity Standard"); (ii) market value of listed securities (calculated by multiplying the daily closing bid price of our Common Shares by our total outstanding Common Shares) of at least \$35 million (the "Market Value Standard"); or (iii) net income from continuing operations (in the latest fiscal year or in two of the last three fiscal years) of at least \$500,000 (the "Net Income Standard"). If our total market capitalization decreases to an amount less than \$35 million for 30 consecutive trading days, it is possible that we could no longer meet any of these three listing standards. Similar to the process described above in the minimum bid price context, if we fail to meet the Market Value Standard for 30 consecutive trading days and do not otherwise meet the Equity Standard or the Net Income Standard, we expect that we would then receive a notification letter from NASDAQ advising us that we fail to comply with the Market Value Standard and providing us a period of 180 calendar days to regain compliance with the Market Value Standard. In order to regain compliance with the Market Value Standard, the market value of our listed securities would have to be at least \$35 million for a period of 10 consecutive business days. Otherwise, our Common Shares may then be subject to delisting.

There can be no assurance that our Common Shares will remain listed on NASDAQ or the TSX. If we fail to meet any of NASDAQ's or TSX's continued listing requirements, our Common Shares may be delisted. Any delisting of our Common Shares may adversely affect a shareholder's ability to dispose, or obtain quotations as to the market value, of such shares.

Our share price is volatile, which may result from factors outside of our control.

Our valuation and share price since the beginning of trading after our initial listings, first in Canada and then in the U.S., have had no meaningful relationship to current or historical financial results, asset values, book value or many other criteria based on conventional measures of the value of shares.

Between January 1, 2014 and December 31, 2014, the closing price of our Common Shares ranged from \$0.52 to \$1.50 on NASDAQ and from C\$0.57 to C\$1.66 per share on TSX. Our share price may be affected by developments directly affecting our business and by developments out of our control or unrelated to us. The stock market generally,

and the biopharmaceutical sector in particular, are vulnerable to abrupt changes in investor sentiment. Prices of shares and trading volume of companies in the biopharmaceutical industry can swing dramatically in ways unrelated to, or that bear a disproportionate relationship to, operating performance. Our share price and trading volume may fluctuate based on a number of factors including, but not limited to:

- clinical and regulatory developments regarding our product candidates;
- delays in our anticipated development or commercialization timelines;

- developments regarding current or future third-party collaborators;
- other announcements by us regarding technological, product development or other matters;
- arrivals or departures of key personnel;
- governmental or regulatory action affecting our product candidates and our competitors' products in the U.S., Canada and other countries;
- developments or disputes concerning patent or proprietary rights;
- actual or anticipated fluctuations in our revenues or expenses;
- general market conditions and fluctuations for the emerging growth and biopharmaceutical market sectors; and
- economic conditions in the U.S., Canada or abroad.

Our listing on both NASDAQ and TSX may increase price volatility due to various factors, including different ability to buy or sell our Common Shares, different market conditions in different capital markets and different trading volumes. In addition, low trading volume may increase the price volatility of our Common Shares. A thin trading market could cause the price of our Common Shares to fluctuate significantly more than the stock market as a whole. We do not intend to pay dividends in the near future.

To date, we have not declared or paid any dividends on our Common Shares. We currently intend to retain our future earnings, if any, to finance further research and the overall commercial expansion of our business. As a result, the return on an investment in our Common Shares will depend upon any future appreciation in value. There is no guarantee that our Common Shares will appreciate in value or even maintain the price at which shareholders have purchased them.

Future issuances of securities and hedging activities may depress the trading price of our Common Shares.

Any additional or future issuance of Common Shares or Convertible Securities, including the issuance of Common Shares upon the exercise of stock options and upon the exercise of outstanding warrants, could dilute the interests of our existing shareholders, and could substantially decrease the trading price of our Common Shares. We may issue equity securities in the future for a number of reasons, including to finance our operations and business strategy, to satisfy our obligations upon the exercise of options or warrants or for other reasons. Our Stock Option Plan generally permits us to have outstanding, at any given time, stock options that are exercisable for a maximum number of Common Shares equal to 11.4% of all then issued and outstanding Common Shares. As at March 17, 2015, there were:

- 90,557,142 Common Shares issued and outstanding;
- no issued and outstanding preferred shares;
- 16,887,987 Common Shares issuable upon exercise of outstanding warrants; and
- 3,885,200 stock options outstanding.

In addition, the price of Common Shares could also be affected by possible sales of Common Shares by investors who view other investment vehicles as more attractive means of equity participation in us and by hedging or arbitrage trading activity that may develop involving our Common Shares. This hedging or arbitrage could, in turn, affect the trading price of our Common Shares.

Cashless exercise and adjustment provisions in certain warrants that we issued in March 2015 may make it more difficult and expensive for us to raise additional capital in the future and may result in further dilution to holders of our Common Shares and our other outstanding warrants.

On March 11, 2015, in connection with a public offering in the United States of units comprised of Common Shares and warrants, we issued 44,758,065 Series A common share purchase warrants (the "Series A Warrants") and 29,838,710 Series B common share purchase warrants (the "Series B Warrants"). The Series B Warrants include certain adjustment provisions and may at any time be exercised on a "net" or "cashless" basis. More particularly, a Series B Warrant holder may, in lieu of making a cash payment when exercising a Series B Warrant, elect instead to receive the "net" number of Common Shares determined in accordance with a formula referred to in the Series B Warrant as the "Alternate Cashless Exercise", if, on or after May 26, 2015 (or prior thereto in certain limited circumstances), the volume weighted average price ("VWAP") of the Common Shares, as



such term is defined in the Series B Warrants, fails to be greater than \$0.74 and pursuant to other terms and conditions. If, on or after May 26, 2015, the VWAP of our Common Shares is below \$0.74 at the time of any exercise, these provisions may make it more difficult and more expensive for us to raise capital in the future. In addition, any reduction in the exercise prices of our Series A and Series B Warrants or any increase in the number of Common Shares issuable upon the exercise of the Series A Warrants and Series B Warrants may also result in additional dilution in the per share net tangible book value of our Common Shares.

Our articles of incorporation contain "blank check" preferred share provisions, which could delay or impede an acquisition of our company.

Our articles of incorporation, as amended, authorize the issuance of an unlimited number of "blank check" preferred shares, which could be issued by our Board of Directors without shareholder approval and which may contain liquidation, dividend and other rights equivalent or superior to our Common Shares. In addition, we have implemented in our constating documents an advance notice procedure for shareholder approvals to be brought before an annual meeting of our shareholders, including proposed nominations of persons for election to our Board of Directors. These provisions, among others, whether alone or together, could delay or impede hostile takeovers and changes in control or changes in our management. Any provision of our constating documents that has the effect of delaying or deterring a change in control could limit the opportunity for our shareholders to receive a premium for their Common Shares and could also affect the price that some investors are willing to pay for our Common Shares.

Our business could be negatively affected as a result of the actions of activist shareholders.

Proxy contests have been waged against many companies in the biopharmaceutical industry over the last few years. If faced with a proxy contest, we may not be able to successfully respond to the contest, which would be disruptive to our business. Even if we are successful, our business could be adversely affected by a proxy contest because:

responding to proxy contests and other actions by activist shareholders may be costly and time-consuming, and may disrupt our operations and divert the attention of management and our employees;

perceived uncertainties as to the potential outcome of any proxy contest may result in our inability to

- consummate potential acquisitions, collaborations or in-licensing opportunities and may make it more difficult to attract and retain qualified personnel and business partners; and

if individuals that have a specific agenda different from that of our management or other members of our board of directors are elected to our board as a result of any proxy contest, such an election may adversely affect our ability to effectively and timely implement our strategic plan and to create value for our shareholders.

#### Item 4. Information on the Company

##### A. History and development of the Company

We are a specialty biopharmaceutical company engaged in developing and commercializing novel treatments in oncology, endocrinology and women's health.

We were incorporated on September 12, 1990 under the Canada Business Corporations Act (the "CBCA") and continue to be governed by the CBCA. Our registered address and head office is located at 1405 du Parc-Technologique Blvd., Quebec City, Quebec, Canada G1P 4P5; our telephone number is (418) 652-8525 and our website is [www.aezsinc.com](http://www.aezsinc.com). None of the documents or information found on our website shall be deemed to be included in or incorporated by reference into this Annual Report on Form 20-F, unless such document is specifically incorporated herein by reference.

On December 30, 2002, we acquired Zentaris AG, a biopharmaceutical company based in Frankfurt, Germany. Zentaris was a spin-off of Asta Medica GmbH, a former pharmaceutical company affiliated with Degussa AG. In May 2004, we changed our name to Aeterna Zentaris Inc. and on May 11, 2007, Zentaris GmbH was renamed Aeterna Zentaris GmbH. Aeterna Zentaris GmbH conducts our drug development efforts. In September 2007, we incorporated Aeterna Zentaris, Inc. under the laws of Delaware. This wholly owned subsidiary, which is based in the Charleston, South Carolina area, conducts our commercial operations.

On October 2, 2012, we effected a 6-to-1 Share Consolidation (reverse stock split). Our Common Shares commenced trading on a consolidated and adjusted basis on both NASDAQ and TSX on October 5, 2012.



On October 1, 2013, we announced the completion of our previously announced agreements with various partners and licensees with respect to the manufacturing rights and obligations for our Cetrotide® product. The principal outcome of such agreements was the transfer of all manufacturing rights and the grant of a license to a subsidiary of Merck KGaA of Darmstadt, Germany for the manufacture, testing, assembling, packaging, storage and release of Cetrotide® in all territories (the "Cetrotide® Business"). Following this transfer, the Cetrotide® Business has been presented in our consolidated financial statements as a discontinued operation.

We currently have three wholly-owned direct and indirect subsidiaries, AEZS GmbH, based in Frankfurt, Germany, Zentaris IVF GmbH, a direct wholly-owned subsidiary of AEZS Germany based in Frankfurt, Germany, and Aeterna Zentaris, Inc., an entity incorporated in the State of Delaware with an office in the Charleston, South Carolina area in the United States.

Aeterna Zentaris Inc.  
(Canada)

100%

Aeterna Zentaris GmbH  
(Germany)

100%

Aeterna Zentaris, Inc.  
(Delaware)

100%

Zentaris IVF GmbH  
(Germany)

Our Common Shares are listed for trading on the TSX under the trading symbol "AEZ" and on NASDAQ under the trading symbol "AEZS".

Our agent for service of process and SEC matters in the United States is our wholly-owned subsidiary, Aeterna Zentaris, Inc., located at 315 Sigma Drive, Suite 302, Summerville, South Carolina 29483.

There have been no public takeover offers by third parties with respect to us or by us in respect of other companies' shares during the last or current fiscal year.

**B. Business overview**

We are a specialty biopharmaceutical company engaged in developing and commercializing novel treatments in oncology, endocrinology and women's health. Our drug development efforts are focused currently on two compounds, zoptarelin doxorubicin and Macrilen™, which are in clinical development, and on two oncology compounds (an Erk inhibitor and LHRH-disorazol Z product candidates), which are in pre-clinical development. We also are working concurrently to pursue strategic initiatives in connection with our goal to become a commercially operating specialty biopharmaceutical organization.

We have an ongoing Phase 3 ZoptEC trial in endometrial cancer under a Special Protocol Assessment ("SPA") with the FDA with zoptarelin doxorubicin, a doxorubicin Luteinizing Hormone-Releasing Hormone ("LHRH") targeted conjugate compound for which we have successfully completed a Phase 2 trial in advanced endometrial and advanced ovarian cancer.

We are evaluating whether to conduct a confirmatory Phase 3 trial for the U.S. registration of Macrilen™, our orally available peptidomimetic ghrelin receptor agonist with growth hormone secretagogue activity, following a recent meeting with the FDA regarding the design of the study.

As for our compounds in earlier stages of development, as part of our focused initiative to optimize R&D activities, we have decided to streamline our drug discovery activities and focus on specific projects related to our Erk inhibitors and our LHRH-disorazol Z product candidates. Regarding our Erk inhibitors program, we are looking to select an optimized molecule for development in the first half of 2015. Our investment in the development of Erk inhibitors and our LHRH-disorazol Z product candidate will depend on the level of liquidity available to fund our R&D activities.

## Recent Developments

For a complete description of our recent corporate and pipeline developments, refer to "Item 5. – Operating and Financial Review and Prospects – Key Developments".

### Our Business Strategy

Our primary business strategy is to pursue the development of our pipeline with a focus on our principal product candidates zoptarelin doxorubicin and Macrilen™ in oncology and endocrinology, respectively, and to commercialize oncology, endocrinology and women's health products that we may acquire, in-license or promote. Our vision is to become a growth-oriented specialty biopharmaceutical company.

### Overview of our Drug Development Efforts

#### Our product pipeline

- 
- (1) Phase 2 trial in ovarian cancer completed.
  - (2) Investigator-driven and sponsored.
  - (3) Currently evaluating options and future plans after issuance of CRL from the FDA.
  - (4) Potential oral prostate cancer vaccine available for out-licensing.
  - (5) Sponsored entirely by licensees.

Our drug development efforts are focused currently on two compounds, zoptarelin doxorubicin and Macrilen™, which are in clinical development, and on two oncology compounds, an Erk inhibitor (AEZS-134) and LHRH-disorazol Z (AEZS-138), which are in pre-clinical development. We made the decision to focus our efforts on development of these compounds following a review of our portfolio, during which we concluded that we lack the resources to pursue other earlier-stage opportunities. As a result of this decision, we discontinued drug discovery efforts, including basic research activities in medicinal chemistry and biology and our high-throughput-screening operations, which resulted in a reduction of our research and development staff by approximately 29 personnel. During 2015, we will attempt to out-license or to sell the compounds that we are no longer pursuing for commercial development. We also intend to collaborate with research institutions to pursue, at their own cost, testing on our 100,000-plus library of medicinal compounds.

#### Zoptarelin Doxorubicin

Zoptarelin doxorubicin represents a new targeting concept in oncology, using a hybrid molecule composed of a synthetic peptide carrier and a well-known chemotherapy agent, doxorubicin. The compound is an intravenous drug in advanced clinical development that directs the chemotherapy agent specifically to LHRH-receptor expressing tumors, resulting in more targeted treatment with potentially less damage to healthy tissue. We are conducting a Phase 3 clinical study ZoptEC of the compound in women with locally advanced, recurrent or metastatic endometrial cancer who have progressed and who have received one chemotherapeutic regimen with platinum and taxane (either as adjuvant or first-line treatment).

Zoptarelin doxorubicin is a type of compound known as a cytotoxic conjugate. Most chemotherapeutic agents, including doxorubicin, are toxic to normal cells as well as to cancerous tumor cells. Therefore, a method for targeting such drugs to cancerous tissue offers a potential benefit for patients with advanced or metastatic tumors. Zoptarelin doxorubicin is a hybrid molecule composed of a doxorubicin chemically linked to an LHRH agonist, a modified natural hormone with affinity for the

LHRH receptor. This design allows for the specific binding and selective uptake of the cytotoxic conjugate by LHRH receptor-positive tumors. Potential benefits of this targeted approach include a more favorable safety profile with lower incidence and severity of side effects, as normal tissues would be spared from the toxic effects of doxorubicin. In addition, the targeted approach may enable treatment of LHRH receptor-positive cancers that have become resistant to doxorubicin in its non-targeted form.

ZoptEC is an open-label, randomized, multicenter trial that is being conducted in North America, Europe and Israel. The trial compares zoptarelin doxorubicin with doxorubicin as second line therapy and will involve approximately 500 patients. The primary efficacy endpoint of the ZoptEC trial is improvement in median Overall Survival ("OS"). We are conducting ZoptEC under a SPA agreement with the FDA. The SPA agreement states that the proposed trial protocol design, clinical endpoints and planned analyses are acceptable to the FDA to support a regulatory submission. Final marketing approval depends on the results of efficacy, the adverse event profile and an evaluation of the benefit/risk of treatment demonstrated in ZoptEC. We expect to receive the first interim results of ZoptEC during the first half of 2015.

ZoptEC is being conducted by Ergomed plc, a contract clinical development organization with which we have entered into a co-development and profit-sharing agreement. Under the terms of the agreement, Ergomed has agreed to assume 30% (up to \$10 million) of the clinical and regulatory costs for ZoptEC, which are estimated at approximately \$32.5 million. Ergomed will receive its return on investment based on an agreed single-digit percentage of any net income or net proceeds from licensing activity we receive for zoptarelin doxorubicin in this indication, up to a specified maximum amount.

We are attempting to commercialize zoptarelin doxorubicin as a treatment for endometrial cancer because, according to the American Cancer Society, endometrial cancer is the most common invasive gynecologic cancer in women in the United States, with approximately 50,000 new cases annually. This disease primarily affects postmenopausal women at an average age of 60 years at diagnosis. In the United States, it is estimated that approximately 8,000 women will die of endometrial cancer annually.

We hold the worldwide rights to zoptarelin doxorubicin pursuant to an exclusive license agreement with the Administrators of the Tulane Educational Fund. On December 1, 2014, we entered into an exclusive license and technology transfer agreement with Sinopharm A-Think Pharmaceuticals Co., Ltd. for the compound, for the initial indication of endometrial cancer, in the territories of Chinese, Hong Kong and Macau. We are currently attempting to sublicense the compound to others for development in additional markets.

The illustration above depicts the mode of action of our hybrid cytotoxic compound zoptarelin doxorubicin. The LHRH targeting agent, when bound to a doxorubicin molecule, causes doxorubicin to bind to the tumor cell.

The following is a summary of the history of our development of zoptarelin doxorubicin in ovarian and endometrial cancer:

In 2007, a Phase 2 open-label, non-comparative, multicenter two-indication trial stratified with two stages Simon Design was prepared. The study was planned to involve up to 82 patients, with up to 41 patients each with a diagnosis of platinum-resistant ovarian cancer (stratum A) or disseminated endometrial cancer (stratum B). Under coordination by Prof. Günter Emons, M.D., Chairman of the Department of Obstetrics & Gynaecology at the University of Göttingen, Germany, this open-label, multicenter and multinational Phase 2 study "AGO-GYN 5" was conducted by the German AGO Study Group (Arbeitsgemeinschaft Gynäkologische Onkologie / Gynaecological Oncology Working Group), in cooperation with clinical

sites in Europe. An i.v. infusion of zoletarelin doxorubicin ( $267 \text{ mg/m}^2$ ) was administered over a period of two hours, every Day 1 of a 21-day (3-week) cycle. The proposed duration of the study treatment was six cycles. The study was performed with 14 centers of the German Gynaecological Oncology Working Group, in cooperation with three clinical sites in Europe. The primary efficacy endpoint was a response rate with a success criterion at the end of Stage II defined as five or more patients with partial or complete tumor responses according to Response Evaluation Criteria in Solid Tumors ("RECIST") and/or Gynaecologic Cancer Intergroup ("GCIG") guidelines. Secondary endpoints included time to progression ("TTP"), survival, toxicity, as well as adverse effects. In October 2008, we announced that we had entered the second stage of patient recruitment for the Phase 2 trial in platinum-resistant ovarian cancer indication. This decision was taken following the report of two partial responses ("PR") among patients with ovarian cancer. The second stage of patient recruitment for the endometrial cancer indication was reached in November 2008 and was based on the report of one complete response ("CR") and two PR among 14 patients with endometrial cancer. On November 2, 2009, we announced positive preliminary efficacy data for the Phase 2 study in patients with LHRH-receptor positive platinum-resistant and taxane-pretreated ovarian cancer. All 43 patients who had entered the study had completed their treatment, and a preliminary evaluation had shown that the study had met its predefined primary efficacy endpoint of five or more responders in 41 evaluable patients. Responders, as well as patients with stable disease after completion of treatment with zoletarelin doxorubicin, were to be followed to assess the duration of response and, ultimately, OS.

On November 24, 2009, we announced positive results for the Phase 2 study in patients with endometrial cancer. Preliminary evaluation showed that the study met its predefined primary efficacy endpoint of five or more responders in endometrial cancer patients. Responders, as well as patients with stable disease after completion of treatment with zoletarelin doxorubicin, were to be followed to assess the duration of progression free survival ("PFS") and, ultimately, OS.

On June 7, 2010, Prof. Günter Emons, Chairman, Department of Obstetrics & Gynaecology Georg-August University Göttingen, Germany, presented positive efficacy and safety data for zoletarelin doxorubicin in ovarian cancer at the American Society of Clinical Oncology's ("ASCO") Annual Meeting. The poster (abstract #5035), was entitled "Phase 2 study of AEZS-108, a targeted cytotoxic LHRH analog, in patients with LHRH receptor-positive platinum resistant ovarian cancer". Two patients with platinum-resistant ovarian cancer entered the study. Efficacy included PR in five patients (11.9%) and stable disease for more than twelve weeks in eleven patients (26.2%). Based on those data, a clinical benefit rate ("CBR") of 38% was estimated. Median TTP and OS were evaluated at 3.5 months (104 days) and 15.6 months (475 days), respectively. OS compared favourably with data from Doxil<sup>®</sup> and topotecan (8-9 months). In all, tolerability of zoletarelin doxorubicin was good and commonly allowed retreatment as scheduled. Only one patient (2.4%) had a dose reduction, and overall, 25 of 170 (14.7%) courses were given with a delay, including cases in which delay was not related to toxicity. Severe (Grade 3 or 4) toxicity was mainly restricted to rapidly reversible hematologic toxicity (leukopenia / neutropenia) associated with fever in three cases. Good tolerability of zoletarelin doxorubicin was also reflected with only a few patients with non-hematological toxicities of Grade 3 (none with Grade 4), including single cases each of nausea, constipation, poor general condition, and an enzyme elevation. No cardiac toxicity was reported. Final evaluation of the ovarian cancer study revealed six patients with PR based on tumor lesions, plus two responders with tumor marker response including one case with normalization, for an overall response rate of 19% (one unconfirmed CR and seven partial responses). Median TTP and OS were evaluated at three and twelve months, respectively.

On September 14, 2011, positive final Phase 2 efficacy and safety data for zoletarelin doxorubicin in advanced endometrial cancer were presented at the European Society of Gynecological Oncology in Milan, Italy. The data showed that zoletarelin doxorubicin, administered as a single agent at a dosage of  $267 \text{ mg/m}^2$  every three weeks was active, well tolerated and that OS was similar to that reported for modern triple combination chemotherapy, but was achieved with lower toxicity. The primary endpoint was the response rate as defined by the RECIST. Secondary endpoints included safety, TTP and OS. In all, of 43 patients treated with zoletarelin doxorubicin, 39 were evaluable for efficacy. Efficacy confirmed by independent response review included two CR, ten PR, and 17 patients with stable disease ("SD"). Based on those data, the estimated overall response rate ("ORR") (ORR = CR+PR) was 30.8% and the CBR (CBR = CR+PR+SD) was 74.4%. Responses in patients previously treated with chemotherapy included one CR,

one PR and two SDs in eight of the patients with prior use of platinum/taxane regimens. Median TTP and OS were seven months and 13.7 months, respectively. A final evaluation, not excluding non-evaluable cases, revealed the following results: two CR, eleven PR (including three patients with PR not confirmed at subsequent time point), and 17 patients with SD, for an ORR of 30.2% and CBR of 70%; median TTP and OS at seven and 15 months, respectively. Overall, tolerability of zoptarelin doxorubicin was good and commonly allowed retreatment as scheduled. Severe (Grade 3 or 4) toxicity was mainly restricted to rapidly reversible leukopenia and neutropenia, associated with fever in only one patient who had been treated only three weeks after a surgery. Good tolerability of zoptarelin doxorubicin was also reflected by a low rate of severe non-hematological and possibly drug-related adverse events which included single cases each of nausea, diarrhea, fatigue, general health deterioration, creatinine elevation, and blood potassium decrease. No cardiac toxicity was reported.

At present, we are not aware of any approved drug product for the treatment of advanced and recurrent metastatic endometrial cancer in either the United States or Europe. To the best of our knowledge, there is also no systemic therapy approved in either the United States or Europe (except Germany, where doxorubicin is approved for this therapy) for treating advanced or recurrent endometrial cancer.

The following products are among some of the many products currently in clinical trial in endometrial cancer:

| Product / mode of action*                         | Company*                             | Development Status*/Sponsor   |
|---|--------------------------------------|-------------------------------|
| Carboplatin / DNA replication inhibitor           | Teva Pharmaceutical                  | Phase 3 / GOG                 |
| Paclitaxel / Anti microtubule agent               | HQ SPCLT Pharma / Abraxis BioScience | Phase 3 / GOG                 |
| Bevacizumab / VEGF inhibitor                      | Genentech                            | Phase 2 / NCI                 |
| Brivanib / VEGFR-2 and FGFR inhibitor             | Bristol-Myers Squibb                 | Phase 2 / GOG                 |
| Buparlisib (BKM120)/PI3K inhibitor                | Novartis                             | Phase 2 / Argacy-Gineco group |
| Cediranib / VEGFR inhibitor                       | Astra Zeneca                         | Phase 2 / NCI                 |
| Dovitinib (TKI258)/FGFR inhibitor                 | Novartis                             | Phase 2 / Novartis            |
| Everolimus / mTOR inhibitor                       | Novartis                             | Phase 2 / NCI or MD Anderson  |
| Ixabepilone / microtubule inhibitor               | Bristol-Myers Squibb                 | Phase 2 / NCI                 |
| Lenvatinib (E7080)/Multi-kinase inhibitor         | Eisai                                | Phase 2 / Eisai               |
| Letrozole / non-steroidal aromatase inhibitor     | Novartis                             | Phase 2 / MD Anderson         |
| Metformin / anti-hyperglycemic agent              | Bristol-Myers Squibb                 | Phase 2 / GOG                 |
| Nintedanib / multiple RTKs inhibitor and non-RTKs | Boehringer Ingelheim                 | Phase 2 / GOG                 |
| Sunitinib malate/Tyrosine kinase inhibitor        | Pfizer                               | Phase 2 / NCI                 |
| Temsirolimus / mTOR inhibitor                     | PF Prism CV                          | Phase 2 / NCI or MD Anderson  |
| Trastuzumab / HER3/neu receptor antagonist        | Genentech                            | Phase 2 / Yale                |

\*Source: [www.clinicaltrials.gov](http://www.clinicaltrials.gov) and competitor company's website.

We believe that zoptarelin doxorubicin may be useful in treating other cancers, including breast cancer, bladder cancer and prostate cancer. We terminated early clinical trials of the compound as a treatment for triple-negative breast cancer and bladder cancer as part of our ongoing review of our development activities to ensure the most effective use of our resources. We are currently assisting Dr. Jacek Pinski, Associate Professor of Medicine at the Norris Comprehensive Cancer Center of the University of Southern California, to conduct a Phase 1/2 study in refractory prostate cancer with zoptarelin doxorubicin. Dr. Pinski received a \$1.6 million grant from The National Institutes of Health ("NIH") to conduct the study. The study, entitled "A Phase I/II Trial of AN-152 [AEZS-108] in Castration- and Taxane-Resistant Prostate Cancer", will enroll up to 55 patients and will be conducted in two portions: an abbreviated dose-escalation followed by a single arm, Simon Optimum two-stage design Phase 2 study using the dose selected in the Phase 1 portion. The primary objective of the Phase 2 portion is to evaluate the clinical benefit of zoptarelin doxorubicin in men with castration- and taxane-resistant metastatic prostate cancer, for which the presence of LHRH receptors has been confirmed. The following is a summary of Dr. Pinski's study:

On December 14, 2010, we announced the initiation of the Phase 1/2 trial.

On September 26, 2011, we announced positive interim data for the Phase 1 portion of the Phase 1/2 trial with zoptarelin doxorubicin in castration-and taxane-resistant prostate cancer at the European Society for Medical Oncology ("ESMO") meeting, Stockholm, Sweden. This is a single arm study with a Phase 1 lead-in to a Phase 2 clinical trial. The primary endpoint of the Phase 1 portion is safety. Twelve patients entered the study: three patients each received zoptarelin doxorubicin at the lower dose levels of 160 and 210 mg/m<sup>2</sup>, and six patients at 267 mg/m<sup>2</sup>. Data on ten patients were presented as two patients were too early for evaluation. Zoptarelin doxorubicin was

generally well tolerated and there were no dose limiting toxicities at such time. The only Grade 3 and 4 toxicities were hematologic in nature. At the time, there were three Grade 4 toxicities (two at 210 mg/m<sup>2</sup> and one at 267 mg/m<sup>2</sup>), all of which were asymptomatic. There were six Grade 3 toxicities including two cases of Grade 3 anemia after repeated courses (cycles five and six) and one case of febrile neutropenia that occurred during cycle one. Signs of therapeutic activity included five patients with Prostate Specific Antigen ("PSA") regression. One of these patients treated at the lowest dose level, received eight treatment cycles because the patient demonstrated continued clinical benefit. Three out of four evaluable patients with radiologic evaluable disease achieved stable disease per RECIST. The Phase 2 extension is planned after completion of the toxicity assessment in the final dose level of the Phase 1 portion of the study. In correlative studies, drug uptake was demonstrated for the first time in captured circulating tumor cells of patients, thus validating the principle of targeted tumor therapy with zoptarelin doxorubicin in a clinical setting.

On February 3, 2012, we reported updated results for the Phase 1 portion of the study. The results were based on 13 patients who had been previously treated with androgen-deprivation therapy (LHRH agonist) and at least one taxane-based chemotherapy regimen, who were treated on three dose levels of zoptarelin doxorubicin: three at 160 mg/m<sup>2</sup>, three at 210 mg/m<sup>2</sup>, and seven at 267 mg/m<sup>2</sup>. Overall, zoptarelin doxorubicin was well tolerated among this group of heavily pretreated older patients. There were two dose-limiting toxicities, each of which having been a case of asymptomatic Grade 4 neutropenia at the 267 mg/m<sup>2</sup> dose level and both patients fully recovered. The Grade 3 and 4 toxicities were primarily hematologic. There was minimal non-hematologic toxicity, most frequently fatigue and alopecia. Despite the low doses of zoptarelin doxorubicin in the first cohorts, there was some evidence of antitumor activity. One patient received eight cycles (at 210 mg/m<sup>2</sup>) due to continued benefit. Among the five evaluable patients with measurable disease, four achieved stable disease. At the time of submission of the abstract, a decrease in PSA was noted in six patients. Six of 13 (46%) treated patients received at least five cycles of therapy with no evidence of disease progression at twelve weeks. Correlative studies on circulating tumor cells ("CTC") demonstrated the uptake of zoptarelin doxorubicin into the targeted tumor.

On November 12, 2012, we announced the initiation of the Phase 2 portion of the ongoing Phase 1/2 study of zoptarelin doxorubicin in prostate cancer. The primary endpoint of the Phase 2 portion is to evaluate the clinical benefit of zoptarelin doxorubicin for these patients. Secondary endpoints include toxicity, time to RECIST and PSA progression, RECIST response rate for patients with measurable disease, PSA response rate, pain palliation and overall survival.

On June 3, 2013, we announced that final data for the Phase 1 portion of the ongoing Phase 1/2 trial with zoptarelin doxorubicin in prostate cancer demonstrated the compound's promising anti-tumor activity. Results were presented by Dr. Pinski during a poster session at the ASCO Annual Meeting in Chicago. Eighteen men with a median of two prior chemotherapy regimens (range 1/5) and a median PSA of 106.4 ng/mL (range 8.4-1624.0) were enrolled. The dose of zoptarelin doxorubicin was escalated from 160 mg/m<sup>2</sup> to 210 mg/m<sup>2</sup> then to 267 mg/m<sup>2</sup>. There were two Dose-Limiting Toxicities ("DLT") in the seven patients receiving zoptarelin doxorubicin at a dose of 267 mg/m<sup>2</sup> (grade 4 neutropenia), establishing 210 mg/m<sup>2</sup> as the Maximum Tolerated Dose ("MTD"). Significant non-hematologic toxicities included one case of grade 3 nausea. No cardiotoxicity was seen on serial evaluation and six patients completed six cycles. Internalization of zoptarelin doxorubicin was consistently visualized in CTCs 1 to 3 hours after dosing. Maximal PSA response was stable or decreased in 8 of 18 men. Among the 15 evaluable patients with measurable disease, ten achieved stable disease and a drop in PSA was noted in three patients. The MTD of zoptarelin doxorubicin in this indication is 210 mg/m<sup>2</sup>, which is below the MTD reported in women with refractory endometrial and ovarian cancer.

On December 29, 2014 we announced that an article on final data for the Phase 1 portion of the ongoing Phase 1/2 trial in prostate cancer with zoptarelin doxorubicin was published in the December issue of Clinical Cancer Research. The article outlines data previously disclosed in June 2013 at the American Society of Clinical Oncology's ("ASCO") Annual Meeting. The article is entitled "Phase I, Dose-Escalation Study of the Targeted Cytotoxic LHRH Analog AEZS-108 in Patients with Castration- and Taxane-Resistant Prostate Cancer", Liu SV, Tsao-Wei DD, Xiong S, Groshen S, Dorff TB, Quinn DI, Tai YC, Engel J, Hawes D, Schally AV, Pinski J.

Macrilen™ (Macimorelin Acetate)

Macrilen™ (macimorelin acetate) is a novel orally available peptidomimetic ghrelin receptor agonist that stimulates the secretion of growth hormone by binding to the ghrelin receptor (GHSR-1a) and that has potential uses in both endocrinology and oncology indications. Macrilen™ has been granted orphan-drug designation by the FDA for use in evaluating growth hormone deficiency ("GHD").

In November 2013, we filed an NDA for Macrilen™ for the evaluation of adult GHD ("AGHD") by evaluating the pituitary gland secretion of growth hormone in response to an oral dose of the product. The FDA accepted the NDA for substantive review in January 2014. On November 6, 2014, the FDA informed us, by issuing a Complete Response Letter ("CRL"), that it had determined that our NDA could not be approved in its present form. The CRL stated that the planned analysis of our pivotal trial did not meet its stated primary efficacy objective as agreed to in the SPA agreement between us and the FDA. The CRL further mentioned issues related to the lack of complete and verifiable source data for determining whether patients were accurately diagnosed with AGHD. The FDA concluded that, "in

light of the failed primary analysis and data deficiencies noted, the clinical trial does not by itself support the indication." To address the deficiencies identified above, the CRL stated that we will need to demonstrate the efficacy of macimorelin as a diagnostic test for GHD in a new, confirmatory clinical study. The CRL also stated that a serious event of electrocardiogram QT interval prolongation occurred for which attribution to drug could not be excluded. Therefore a dedicated thorough QT study to evaluate the effect of macimorelin on the QT interval would be necessary.

Following receipt of the CRL, we assembled a panel of experts in the field of growth-hormone deficiency, including distinguished experts in the field from both the United States of America and the EU. The panel met On January 8, 2015, during which we discussed our conclusions from the CRL, as well as the potential design of a new pivotal study. In parallel, we are collecting information on timelines and costs for such a study. We are evaluating whether to conduct a confirmatory Phase 3 trial for the U.S. registration of Macrilen™, our orally available peptidomimetic ghrelin receptor agonist with growth hormone secretagogue activity, following a recent meeting with the FDA regarding the design of the study.

The following is a summary of the history of our development of Macrilen™:

We out-licensed the development compound macimorelin acetate to Ardana Bioscience in 2004. Ardana Bioscience subsequently initiated the clinical development program of macimorelin acetate as an orally active compound intended to be used in the diagnosis of adult growth hormone deficiency. Following agreement with the FDA on the study design, Ardana Bioscience initiated a pivotal Phase 3 study in 2007, which tested the compound compared to a test of growth hormone-releasing hormone ("GHRH") + L-Arginine ("ARG"), using a competitor's compound. The study was discontinued in 2008 due to Ardana Bioscience's bankruptcy. We terminated Ardana Bioscience's license to the compound due to its bankruptcy.

On October 19, 2009, we announced that we had initiated activities intended to complete the clinical development of Macrilen™ for use in evaluating AGHD. We had already assumed the sponsorship of the IND from Ardana Bioscience and discussed with the FDA the best way to complete the ongoing Phase 3 clinical trial and subsequently to file an NDA for approval of Macrilen™ for use in evaluating AGHD. The pivotal Phase 3 trial was designed to investigate the safety and efficacy of the oral administration of Macrilen™ as a growth hormone stimulator for use in evaluating AGHD. It was accepted by the FDA that for the ongoing part of the study, Macrilen™ would not be compared to the GHRH + ARG test because the competitor's compound had been removed from the market.

On June 21, 2010, we presented positive data at the 92<sup>nd</sup> ENDO Meeting on Macrilen™ for evaluation and therapeutic use. The preclinical data showed that Macrilen™ is a potent and safe oral synthetic GH-releasing compound with potential utility in evaluating GHD.

On July 14, 2010, we announced the presentation of a poster on Macrilen™, entitled "Use of the Orally Active Ghrelin Mimetic AEZS-130 as a Simple Test for the Diagnosis of Growth Hormone (GH) Deficiency (GHD) in adults (AGHD)". Merriam G.R., Yuen K., Bonert V., Dobs A, Garcia J., Kipnes M., Molitch M., Swerdloff R., Wang C., Cook D., Altemose I. and Biller B. This poster was presented at the Seventh International Congress of Neuroendocrinology, in Rouen, France.

On October 5, 2010, at the Fifth International Congress of the Growth Hormone Research Society and the Insulin-like Growth Factors Society, we announced that, after the interim Phase 3 analysis, Macrilen™ demonstrated the potential to provide a simple, well tolerated and safe oral product for use in evaluating AGHD.

On December 20, 2010, we announced we had reached agreement with the FDA on a SPA for Macrilen™, enabling us to complete the ongoing registration study required to gain approval for use in evaluating AGHD. The first part of the study, conducted by our former licensee, Ardana, was a two-way cross-over study and included 42 patients with confirmed AGHD or multiple pituitary hormone deficiencies and a low insulin-like growth factor-I. A control group of 10 subjects without AGHD was matched to patients for age, gender, body mass index and (for females) estrogen status.

On July 26, 2011, we announced the completion of the Phase 3 study of Macrilen™ as a first oral product for use in evaluating AGHD and the decision to meet with the FDA for the future filing of an NDA for the registration of Macrilen™ in the United States.

On August 30, 2011, we announced favorable top-line results of our completed Phase 3 study with Macrilen™ as a first oral product for use in evaluating AGHD. The results showed that Macrilen™ had reached its primary endpoint demonstrating >90% area-under-the-curve ("AUC") of the Receiver Operating Characteristic ("ROC") curve, which determines the level of specificity and sensitivity of the product. Importantly, the primary efficacy parameters showed that the study achieved both specificity and sensitivity at a level of 90% or greater. In addition, eight of the ten newly enrolled AGHD patients were correctly classified by a pre-specified peak GH threshold level. The use of Macrilen™ was shown to be safe and well tolerated overall throughout the completion of this trial.

On June 26, 2012, we announced that the final results from a Phase 3 trial for Macrilen™ showed that the drug is safe and effective in evaluating AGHD. Jose M. Garcia, MD, PhD, of the Baylor College of Medicine and the Michael E. DeBakey VA Medical Center (the "DeBakey Center"), disclosed these data during an oral presentation at the 94<sup>th</sup> ENDO Annual Meeting and Expo in Houston, Texas. The study had originally been designed as a cross-over trial of Macrilen™ compared to the GHRH + ARG test in AGHD patients and in controls matched for body mass index ("BMI"), estrogen status, gender

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and age. After 43 AGHD patients and ten controls had been tested, the GHRH + ARG test became unavailable because the competitor's compound was withdrawn from the market. The study was completed by testing ten more AGHD patients and 38 controls with Macrilen™ alone. Of the 53 AGHD subjects enrolled, 52 received Macrilen™, and 50 who had confirmed AGHD prior to study entry were included in this analysis, along with 48 controls. Two AGHD subjects could not be matched due to the combination of young age, high BMI and estrogen use. The objective of this clinical trial was to determine the efficacy and safety of Macrilen™ in the evaluation of AGHD. Mean peak growth hormone ("GH") levels in AGHD patients and controls following Macrilen™ administration were 2.36ng/mL (range 0.03-33) and 17.71ng/mL (range 10.5-94), respectively. The ROC plot analysis yielded an optimal GH cut-point of 2.7ng/mL, with 82% sensitivity, 92% specificity and a 13% misclassification rate. Obesity (BMI>30) was present in 58% of cases and controls, and peak GH levels were inversely associated with BMI in controls. Adverse events ("AE") were seen in 37% of AGHD patients and in 21% of controls following Macrilen™. In contrast, 61% of AGHD subjects and 30% of controls experienced AEs with L ARG+GHRH. The most common AEs after Macrilen™ were unpleasant taste (19.2%) and diarrhea (3.8%) for the AGHD patients and unpleasant taste (4.2%) and diarrhea (4.2%) for the matched controls. No clinically meaningful changes from baseline in ECG results during the study for AGHD patients were observed; however, one control subject had an ECG change (T wave abnormality and QTc interval prolongation) one hour after treatment with Macrilen™ that was considered a serious treatment-related adverse event and resolved spontaneously within 24 hours. The subject had been pre-treated with citalopram, a drug that was later reported by the FDA to be associated with QT prolongation, although the patient had stopped this medication seven days prior to dosing. Overall, this study demonstrated that Macrilen™ is safe and effective for use in evaluating AGHD. On August 7, 2012, the United States Patent and Trademark Office granted us a patent for the use of Macrilen™ as a product to be used in evaluating AGHD. Filed on February 19, 2007, the patent (US 8,192,719 B2), entitled "Methods and Kits to Diagnose Growth Hormone Deficiency by Oral Administration of EP1572 or EP1573 Compounds", became effective as of June 5, 2012 and will expire on October 12, 2027. The corresponding composition of matter patent (US 6,861,409 B2), filed on June 13, 2001 and granted on March 1, 2005, will expire on August 1, 2022, with the possibility of a patent term extension of up to five years.

On September 25, 2012, the European Patent Office granted us a patent for the use of Macrilen™ related to methods and kits for use in relation to the evaluation of GHD in a human or animal subject. Filed on February 19, 2007, the patent, (EP #1 984 744 B1) entitled "Methods and Kits to Diagnose Growth Hormone Deficiency", was effective as of September 19, 2012 following its publication in the European Patent Bulletin, and it will expire on February 19, 2027. On September 26, 2012, we received notification from the FDA that Fast Track designation previously applied for had not been granted for Macrilen™ as a product for use in evaluating AGHD.

On October 18, 2012, we announced that results from a multicenter open-label Phase 3 trial for Macrilen™ demonstrated that the drug is safe and effective in evaluating AGHD. George R. Merriam, MD, Director of the Clinical Study Unit at the Veterans Affairs Puget Sound Health Care System, and Professor of Medicine at the University of Washington, Seattle and Tacoma, WA, disclosed these data at the 6<sup>th</sup> International Congress of the GRS and IGF Society in Munich, Germany. His presentation confirmed data previously presented by Dr. Garcia at the 94<sup>th</sup> ENDO Meeting in Houston, Texas in June 2012. Dr. Merriam's presentation drew attention to the effect of BMI on optimizing the cut-off values to improve the sensitivity and specificity of the test. Responses in normal subjects classified as obese, with BMIs above 30, were significantly lower than in leaner subjects. Since GH deficiency can lead to increased body fat, many of the patients also met criteria for obesity, and therefore, a lower peak GH cut-off is more accurate in separating obese normals from obese patients. Based upon these study results, a cut-off of 2.7 µg/L was optimal for subjects with a BMI≥30 and a cut-off of 6.8 µg/L for subjects with a BMI<30. Age had a weaker effect on test performance and gender made no difference. Dr. Merriam's study concluded that GH stimulation with oral Macrilen™ may provide a simple, rapid, safe, and well-tolerated product used in evaluating AGHD, with accuracy comparable to that of the GHRH-ARG test.

We hold the worldwide rights to macimorelin pursuant to an exclusive license agreement with The French Centre National de la Recherche Scientifique, as licensor, and AEZS GmbH, as licensee.

If approved by the FDA, Macrilen™ would be the first orally administered drug indicated for the evaluation of AGHD. Competitors for Macrilen™ as a product for the evaluation of AGHD are principally the diagnostic tests currently

performed by endocrinologists, although none of these tests are approved by the FDA for this purpose. The most commonly used diagnostic tests for GHD are:

Measurement of blood levels of Insulin Growth Factor ("IGF")-1, which is typically used as the first test when GHD is suspected. However, this test is not used to definitively diagnose GHD because many growth hormone deficient patients show normal IGF-1 levels.

Insulin Tolerance Test ("ITT"), which is considered to be the "gold standard" for GH secretion provocative tests but which requires constant patient monitoring while the test is administered and is contra-indicated in patients with seizure disorders, with cardiovascular disease and in brain injured patients and elderly patients. The ITT is administered i.v.

GHRH + ARG test, which is an easier test to perform in an office setting and has a good safety profile but is considered to be costly to administer compared to ITT and Glucagon. This test is contra-indicated in patients with renal failure. GHRH + ARG is approved in the EU and has been proposed to be the best alternative to ITT, but it is no longer available in the United States. This test is administered i.v.

Glucagon test, which is simple to perform and is considered relatively safe by endocrinologists. The mechanism of action for this test is unclear. Also, this test takes up to three to four hours. It produces side effects in up to one-third of the patients. Since there is a suspicion that this test may cause hypoglycemia, it may not be appropriate in diabetic populations. This test is administered i.m.

Oral administration of Macrilen™ offers more convenience and simplicity over the current GHD tests used, requiring either i.v. or i.m. administration. Additionally, Macrilen™ may demonstrate a more favorable safety profile than existing diagnostic tests, some of which may be inappropriate for certain patient populations, e.g. diabetes mellitus or renal failure, and have demonstrated a variety of side effects, which Macrilen™ has not thus far. These factors may be limiting the use of GHD testing and may potentially enable Macrilen™ to become the product of choice in evaluating AGHD. There are approximately 36,000 AGHD tests performed annually in the U.S. Based on published information from the U.S. Centers for Disease Control and Prevention, different scientific publications and by Navigant Research, we estimate that the total potential U.S. market for AGHD evaluation is approximately 158,000 tests per year, including the evaluation of patients who have suffered traumatic brain injury ("TBI"). In patients with TBI, GHD is frequent and may contribute to cognitive sequel and reduction in quality of life. GHD develops in approximately 19% of both severe and moderate hospitalized TBI victims.

#### Erk Inhibitors (AEZS-134)

We believe that the results of research to date indicate that the MAPK signaling pathway represents a therapeutic intervention point for the clinical treatment of malignant tumors. In this pathway, we have focussed on Erk inhibitors. As a result of our multi-parameter optimization program for kinase inhibitor selectivity, cellular efficacy, physicochemical and in vitro ADMET properties, we developed compounds that we believe might have therapeutic potential. We concluded that, among these compounds, AEZS-134, a highly potent and selective ATP competitive Erk inhibitor, has the most potential. Therefore, we are continuing with the optimization and pre-clinical development of AEZS-134. On April 9, 2014, we announced the presentation of a poster on AEZS-134 during the American Association for Cancer Research Annual Meeting. The data presented provide a rationale for new therapeutic opportunities in oncology, suggesting that Erk inhibitors such as AEZS-134 may provide a treatment option for patients suffering from tumors that are resistant to currently established therapies such as B-Raf and Mek inhibitors. AEZS-134 demonstrated potent anti-proliferative activity in B-Raf wildtype, B-RafV600E mutant, Ras wildtype and K-Ras mutant tumor cell lines in comparison to common Raf inhibitors. Furthermore, we could show that AEZS-134 is efficacious in Mek inhibitor resistant Hct116 and MDA MB231 cells that have been well characterized in terms of Mek F129L allosteric binding pocket mutation, varying degrees of K-Ras amplification, cellular proliferation assays and MAPK pathway phosphorylation studies. Our data indicate a broader targeting potency for Erk rather than Mek and/or Raf.

#### LHRH-Disorazol Z (AEZS-138)

In search of new antitumor agents, we found that disorazol Z, a compound that was isolated from the myxobacterium *Sorangium cellulosum*, possesses cytotoxicity in the picomolar range in a panel of different tumor cell lines. Inhibition of tubulin polymerization, cell cycle arrest and efficient induction of apoptosis, have been identified as modes of action. AEZS-138 is a cytotoxic conjugate of disorazol Z and a synthetic peptide carrier that targets the LHRH receptor. It is, therefore, an outgrowth of our research that lead to our formulation of zopectarelin doxorubicin. The following is a summary of our development efforts with respect to AEZS-138:

On March 24, 2011, we were awarded a \$1.5 million grant from the German Ministry of Education and Research to develop, up to the clinical stage, cytotoxic conjugates of the proprietary cytotoxic compound disorazol Z and peptides

targeting G-protein coupled receptors, including the LHRH receptors. The compounds combine the targeting principle being studied in Phase 3 with zoletarelin doxorubicin with the novel cytotoxic disorazol Z. The grant was payable as a partial reimbursement of qualifying expenditures over a three-year period, until January 31, 2014. The qualified project was performed with Morphisto GmbH and the Helmholtz Institute in Saarbrücken, Germany, which received additional funding of approximately US\$0.7 million. Researchers from the departments of Gynecology and Obstetrics at both the University of Göttingen and the University of Würzburg, Germany, were also part of the collaboration.

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On November 16, 2011, we announced the presentation of a poster at the AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics on encouraging preclinical data for disorazol Z. The data showed that disorazol Z possesses cytotoxicity in a highly diverse panel of 60 different tumor cell lines, and also underlined the identification of important aspects of this novel natural compound's mechanism of action. Disorazol Z has been identified as a tubulin binding agent with highly potent antitumor properties. Cell cycle analysis revealed that disorazol Z arrested cells in the G2/M cell cycle phase and subsequently induced apoptosis with remarkable potency, as shown by sub-nanomolar EC50 values. Currently, experiments are under way to determine the tubulin binding site for disorazol Z and to identify further mechanisms of action of this novel highly potent agent. To expand our zoptarelin doxorubicin technology platform, we aim to evaluate the utility of disorazol Z as a cytotoxic component in a drug-targeting approach utilizing GPCR ligands as the targeting moieties for the treatment of GPCR over-expressing cancers.

On April 10, 2013, we announced at the American Association for Cancer Research's ("AACR") encouraging updated proof-of-concept results for disorazol Z cytotoxic conjugates, such as AEZS-138, in human ovarian and endometrial cancer xenograft models. Data demonstrated that conjugates of D-Lys6-LHRH and disorazol Z retained strong binding to the LHRH receptor and showed potent inhibition of tubulin polymerization. Cellular cytotoxicity of the conjugates was in the low nanomolar EC50 range. Increased cytotoxicity in cells over-expressing the LHRH receptor, support receptor targeting as a mechanism of action. The LHRH receptor-dependent efficacies of disorazol Z - D-Lys6-LHRH conjugates in vitro and in mouse xenograft models that were presented support the principle of tumor targeting by the LHRH receptor as already employed by zoptarelin doxorubicin.

On February 11, 2014, at the 11<sup>th</sup> International Symposium on GnRH, in Salzburg, Austria, we presented further data on the mechanism of action and proof of concept of the disorazol Z cytotoxic conjugate, AEZS-138, which had led to the initiation of its preclinical development during the second quarter of 2013.

#### Overview of our Commercial Operations

Our commercial operations consist of full-time sales force and a sales-management staff. We currently have 19 sales representatives in the United States who provide services for us pursuant to our agreement with Ventiv Commercial Services, LLC, an affiliate of inVentiv Health, Inc. ("inVentiv"), a contract-sales organization. Our sales force is managed by our Senior Vice President, Commercial, a national sales director and two regional sales directors. We promote EstroGel<sup>®</sup>, a leading non-patch transdermal hormone replacement therapy product, pursuant to a co-promotion agreement (the "Ascend Agreement") with ASCEND Therapeutics US LLC ("ASCEND"), which we entered into in August 2014. The Ascend Agreement provides that we will detail EstroGel<sup>®</sup> in specific agreed-upon U.S. territories in exchange for a sales commission that is based upon incremental sales volumes of the product that are generated over pre-established baselines.

The Ascend Agreement has a two-year term that commenced in November 2014. It is subject to extension for successive periods of two years each upon our agreement with ASCEND. The Ascend Agreement has customary termination provisions and, in addition, is subject to termination for convenience by either party upon the provision of not less than six months' written notice to the other party. During the term of the Ascend Agreement, either party may offer other products that it acquires to the other party for inclusion in the co-promotion arrangement established by the Ascend Agreement.

Our agreement with inVentiv provides that the inVentiv personnel who provide services to us are independent contractors and not our employees. InVentiv is solely responsible for the human resource and performance-management functions of all such personnel. It is also responsible for paying the compensation, benefits, payroll-related or withholding taxes and any governmental charges or benefits, including unemployment and disability insurance contributions or benefits and workers compensation contributions with respect to such personnel and for reimbursing them for their expenses.

We paid inVentiv an implementation fee to compensate it for services provided to us up to the date of the hire of the first sales representative it employed to provide services to us. We pay a fixed monthly fee to inVentiv for the services of the sales representatives it provides for us, which is subject to adjustment if the assumptions regarding the annual salary paid to the sales representative prove to be too high or too low, and we also reimburse inVentiv for certain expenses that it incurs as a result of providing sales representatives to us.

Our agreement with inVentiv has a two-year term that started in November 2014. The term may be extended for additional periods of one year upon our reaching a written agreement with inVentiv regarding the terms of the extension not less than 60 days before the end of the expiring term. The agreement is subject to customary termination provisions for non-payment of amounts due, material breach and bankruptcy or insolvency. In addition, we may terminate the agreement without cause by giving inVentiv at least 90 days' prior written notice. If we terminate the agreement prior to the first anniversary of the commencement of the term, we will owe inVentiv an early-termination fee, the amount of which is determined by reference to the termination date.

## RAW MATERIALS

Raw materials and supplies are generally available in quantities adequate to meet the needs of our business. We will be dependent on third-party manufacturers for the pharmaceutical products that we will market. An interruption in the availability of certain raw materials or ingredients, or significant increases in the prices paid by us for them, could have a material adverse effect on our business, financial condition, liquidity and operating results.

## REGULATORY COMPLIANCE

Governmental authorities in Canada, the United States, Europe and other countries extensively regulate the preclinical and clinical testing, manufacturing, labeling, storage, record keeping, advertising, promotion, export, marketing and distribution, among other things, of pharmaceuticals. Under the laws of the United States, the countries of the EU, and other countries, we and the institutions at which we sponsor research are subject to obligations to ensure that our clinical trials are conducted in accordance with Good Clinical Practices ("GCP") guidelines and the investigational plan and protocols contained in an IND application, or comparable foreign regulatory submission. The Japanese regulatory process for approval of new drugs is similar to the FDA approval process described below except that Japanese regulatory authorities request bridging studies to verify that foreign clinical data are applicable to Japanese patients and also require the tests to determine appropriate dosages for Japanese patients to be conducted on Japanese patient volunteers. Due to these requirements, delays of two to three years in introducing a drug developed outside of Japan to the Japanese market are likely. Set forth below is a brief summary of the material governmental regulations affecting us in the major markets in which we intend to market our products and/or promote products that we acquire or in-license or to which we obtain promotional rights.

### Canada

In Canada, the CTPD is the Canadian federal authority that regulates pharmaceutical drugs and medical devices for human use. Prior to being given market authorization, a manufacturer must present substantive scientific evidence of a product's safety, efficacy and quality as required by the Food and Drugs Act and other legislation and regulations. The requirements for the development and sale of pharmaceutical drugs in Canada are substantially similar to those in the United States, which are described below.

### United States

In the United States, the FDA under the Federal Food, Drug, and Cosmetic Act, the Public Health Service Act and other federal statutes and regulations, subjects pharmaceutical products to rigorous review.

In order to obtain approval of a new product from the FDA, we must, among other requirements, submit proof of safety and efficacy as well as detailed information on the manufacture and composition of the product. In most cases, this proof entails extensive preclinical, clinical, and laboratory tests. Before approving a new drug or marketing application, the FDA also typically conducts pre-approval inspections of the company, its CROs and/or its clinical trial sites to ensure that clinical, safety, quality control, and other regulated activities are compliant with GCP, or Good Laboratory Practices ("GLP"), for specific non-clinical toxicology studies. Manufacturing facilities used to produce a product are also subject to ongoing inspection by the FDA. The FDA may also require confirmatory trials, post-marketing testing, and extra surveillance to monitor the effects of approved products, or place conditions on any approvals that could restrict the commercial applications of these products. Once approved, the labeling, advertising, promotion, marketing, and distribution of a drug or biologic product must be in compliance with FDA regulatory requirements.

The first stage required for ultimate FDA approval of a new biologic or drug involves completion of preclinical studies and the submission of the results of these studies to the FDA. This, together with proposed clinical protocols, manufacturing information, analytical data, and other information in an IND, must become effective before human clinical trials may commence. Preclinical studies involve laboratory evaluation of product characteristics and animal studies to assess the efficacy and safety of the product. The FDA regulates preclinical studies under a series of regulations called the current GLP regulations. If the sponsor violates these regulations, the FDA may require that the sponsor replicate those studies.

After the IND becomes effective, a sponsor may commence human clinical trials. The sponsor typically conducts human clinical trials in three sequential phases, but the phases may overlap. In Phase 1 trials, the sponsor tests the product in a small number of patients or healthy volunteers, primarily for safety at one or more doses. Phase 1 trials in

cancer are often conducted with patients who have end-stage or metastatic cancer. In Phase 2, in addition to safety, the sponsor evaluates the efficacy of the product in a patient population somewhat larger than Phase 1 trials. Phase 3 trials typically involve additional testing for safety and clinical efficacy in an expanded population at geographically dispersed test sites. The sponsor must submit to the FDA a clinical plan, or "protocol", accompanied by the approval of the institutions participating in the trials, prior to commencement of each clinical trial. The FDA may order the temporary or permanent discontinuation of a clinical trial at any time. In the case

of product candidates for cancer, the initial human testing may be done in patients with the disease rather than in healthy volunteers. Because these patients are already afflicted with the target disease, such studies may provide results traditionally obtained in Phase 2 studies. Accordingly, these studies are often referred to as "Phase 1/2" studies. Even if patients participate in initial human testing and a Phase 1/2 study is carried out, the sponsor is still responsible for obtaining all the data usually obtained in both Phase 1 and Phase 2 studies.

The sponsor must submit to the FDA the results of the preclinical and clinical testing, together with, among other things, detailed information on the manufacture and composition of the product, in the form of an NDA or, in the case of a biologic, a Biologics License Applications ("BLA"). In a process that can take a year or more, the FDA reviews this application and, when and if it decides that adequate data are available to show that the new compound is both safe and effective for a particular indication and that other applicable requirements have been met, approves the drug or biologic for marketing. The amount of time taken for this approval process is a function of a number of variables, including the quality of the submission and studies presented and the potential contribution that the compound will make in improving the treatment of the disease in question.

Orphan-drug designation is granted by the FDA Office of Orphan Drug Products to novel drugs or biologics that treat a rare disease or condition affecting fewer than 200,000 patients in the U.S. The designation provides the drug developer with a seven-year period of U.S. marketing exclusivity if the drug is the first of its type approved for the specified indication or if it demonstrates superior safety, efficacy or a major contribution to patient care versus another drug of its type previously granted the designation for the same indication. We have been granted orphan drug designations for zoptarelin doxorubicin for the treatment of advanced ovarian cancer and for Macrilen™ for the evaluation of growth hormone deficiency.

Under the Drug Price Competition and Patent Term Restoration Act of 1984 (the "Hatch-Waxman Act"), newly-approved drugs and indications may benefit from a statutory period of non-patent data exclusivity. The Hatch-Waxman Act provides five-year data exclusivity to the first applicant to gain approval of an NDA for a new chemical entity, or NCE, meaning that the FDA has not previously approved any other drug containing the same active pharmaceutical ingredient, or active moiety. Although protection under the Hatch-Waxman Act will not prevent the submission or approval of another full NDA, such an NDA applicant would be required to conduct its own preclinical and adequate, well controlled clinical trials to demonstrate safety and effectiveness.

The Hatch-Waxman Act also provides three years of data exclusivity for the approval of new and supplemental NDAs, including Section 505(b)(2) applications, for, among other things, new indications, dosage forms, routes of administration, or strengths of an existing drug, or for a new use, if new clinical investigations that were conducted or sponsored by the applicant are determined by the FDA to be essential to the approval of the application. This exclusivity, which is sometimes referred to as clinical investigation exclusivity, would not prevent the approval of another application if the applicant has conducted its own adequate, well-controlled clinical trials demonstrating safety and efficacy, nor would it prevent approval of a generic product that did not incorporate the exclusivity-protected changes of the approved drug product.

The labeling, advertising, promotion, marketing, and distribution of a drug or biologic product must be in compliance with FDA regulatory requirements. Failure to comply with applicable requirements can lead to the FDA demanding that production and shipment cease and, in some cases, that the manufacturer recall products, or to enforcement actions that can include seizures, injunctions, and criminal prosecution. These failures can also lead to FDA withdrawal of approval to market a product.

#### European Union

Medicines can be authorized in the EU by using either the centralized authorization procedure or national authorization procedures.

#### Centralized procedure

The EU has implemented a centralized procedure coordinated by the EMA for the approval of human medicines, which results in a single marketing authorization issued by the European Commission that is valid across the EU, as well as Iceland, Liechtenstein and Norway. The centralized procedure is compulsory for human medicines that are derived from biotechnology processes, such as genetic engineering, that contain a new active substance indicated for the treatment of certain diseases, such as HIV/AIDS, cancer, diabetes, neurodegenerative disorders or autoimmune

diseases and other immune dysfunctions, and designated orphan medicines. For medicines that do not fall within these categories, an applicant has the option of submitting an application for a centralized marketing authorization to the EMA, as long as the medicine concerned is a significant therapeutic, scientific or technical innovation, or if its authorization would be in the interest of public health.

#### National authorization procedures

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

**Decentralized procedure.** Using the decentralized procedure, an applicant may apply for simultaneous authorization in more than one EU country of medicinal products that have not yet been authorized in any EU country and that do not fall within the mandatory scope of the centralized procedure.

The application will be reviewed by a selected Reference Member State ("RMS"). The Marketing Authorization granted by the RMS will then be recognized by the other Member States involved in this procedure.

**Mutual recognition procedure.** In the mutual recognition procedure, a medicine is first authorized in one EU Member State, in accordance with the national procedures of that country. Following this, further marketing authorizations can be sought from other EU countries in a procedure whereby the countries concerned agree to recognize the validity of the original, national marketing authorization.

#### Regulation of Commercial Operations

The marketing, promotional, and pricing practices of human pharmaceutical manufacturers, as well as the manner in which manufacturers interact with purchasers and prescribers, are subject to various U.S. federal and state laws, including the federal anti-kickback statute and the False Claims Act and state laws governing kickbacks, false claims, unfair trade practices, and consumer protection, and to similar laws in other countries. In the United States, these laws are administered by, among others, the Department of Justice (DOJ), the Office of Inspector General of the Department of Health and Human Services, the Federal Trade Commission, the Office of Personnel Management, and state attorneys general. Over the past several years, the FDA, the DOJ, and many other agencies have increased their enforcement activities with respect to pharmaceutical companies and increased the inter-agency coordination of enforcement activities.

In the United States, biopharmaceutical and medical device manufacturers are required to record any transfers of value made to licensed physicians and teaching hospitals and to disclose such data to the Department of Health and Human Services ("HHS"). In addition to civil penalties for failure to report transfers of value to physicians or teaching hospitals, there will be criminal penalties, if a manufacturer intentionally makes false statements or excludes information in such reports. The payment data across biopharmaceutical and medical device companies is posted by HHS on a publicly available website. Increased access to such data by fraud and abuse investigators, industry critics and media will draw attention to our collaborations with reported entities and will importantly provide opportunities to underscore the critical nature of our collaborations for developing new medicines and exchanging scientific information. This national payment transparency effort coupled with industry commitment to uphold voluntary codes of conduct (such as the PhRMA Code on Interactions with Healthcare Professionals and PhRMA Guiding Principles Direct to Consumer Advertisements About Prescription Medicines) and rigorous internal training and compliance efforts will complement existing laws and regulations to help ensure ethical collaboration and truthful product communications.

The Canadian association of Research-Based Pharmaceutical Companies ("R<sub>x</sub> & D") adopted "Guidelines for Transparency in Stakeholder Funding" that require member companies to regularly disclose, by means of the web sites and annual reports, a list of all stakeholders to which they provide direct funding. The term "stakeholder" is defined in R<sub>x</sub> & D's Code of Ethical Practices to include "Health Care Professionals". In the EU, the disclosure code of transfers of value to healthcare professionals and organizations adopted by the European Federation of Pharmaceutical Industries and Associations ("EFPIA") requires all members of EFPIA to disclose transfers of value to healthcare professionals and healthcare organizations beginning in 2016, covering the relevant transfers in 2015. Each member company will be required to document and disclose: (i) the names of healthcare professionals and associations that have received payments or other transfers of value and (ii) the amounts or value transferred, and the type of relationship.

For more information about the regulatory risks associated with our business operations, see "Item 3. – Key Information – Risk Factors".

Intellectual Property - Patents

We seek to protect our compounds, manufacturing processes, compositions and methods of medical use for our lead drugs and drug candidates through a combination of patents, trade secrets and know-how. Our patent portfolio consists of approximately 28 owned and in-licensed patent families (issued, granted or pending in the United States, Europe and other jurisdictions). The patent positions of companies in the biotechnology and pharmaceutical industries are highly uncertain and involve complex legal and factual questions. Therefore, we cannot predict the breadth of claims, if any, that may be allowed under any of our

patent applications, or the enforceability of any of our allowed patents. See "Item 3D. Risk Factors – We may not obtain adequate protection for our products through our intellectual property."

Patents extend for varying periods according to the date of patent filing or grant and the legal term of patents in the various countries where patent protection is obtained. The actual protection afforded by a patent, which can vary from country to country, depends on the type of patent, the scope of its coverage and the availability of legal remedies in the country. In the United States, the patent term of a patent that covers an FDA-approved drug may also be eligible for patent term extension, which permits patent term restoration as compensation for the patent term lost during the FDA regulatory review process. The Hatch-Waxman Act permits a patent term extension of up to five years beyond the expiration of the patent, in which the patentee may file an application for yearly interim extensions within five years if the patent will expire and the FDA has not yet approved the NDA. The length of the patent term extension is related to the length of time the drug is under regulatory review. Patent extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval and only one patent applicable to an approved drug may be extended.

Similar provisions are available in Europe and other foreign jurisdictions to extend the term of a patent that covers an approved drug. In these jurisdictions, however, no interim extensions exist and the marketing approval must be granted before the patent expires. In the future, if and when our pharmaceutical products receive FDA approval, we expect to apply for patent term extensions on patents covering those products. While we anticipate that any such applications for patent term extensions will likely be granted, we cannot predict the precise length of time for which such patent terms would be extended in the United States, Europe or other jurisdictions. If we are not able to secure patent term extensions on patents covering our products for meaningful periods of additional time, we may not achieve or sustain profitability, which would adversely affect our business.

In addition to patent protection, our products may benefit from the market-exclusivity provisions contained in the orphan-drug regulations or the pediatric-exclusivity provisions or other provisions of the United States Food, Drug and Cosmetic Act of 1938, as amended, such as new chemical entity exclusivity or new formulation exclusivity. Orphan drug regulations provide incentives to pharmaceutical and biotechnology companies to develop and manufacture drugs for the treatment of rare diseases, currently defined as diseases that exist in fewer than 200,000 individuals in the U.S., or diseases that affect more than 200,000 individuals in the U.S. but that the sponsor does not realistically anticipate will generate a net profit. Under these provisions, a manufacturer of a designated orphan drug can seek tax benefits, and the holder of the first FDA approval of a designated orphan product will be granted a seven-year period of marketing exclusivity for such FDA-approved orphan product. In the U.S., the FDA has the authority to grant additional data protection for approved drugs where the sponsor conducts specified testing in pediatric or adolescent populations. If granted, this pediatric exclusivity provides an additional six months which are added to the term of data protection as well as to the term of any relevant patents, to the extent these protections have not already expired. We may also seek to utilize market exclusivities in other territories, such as in the EU. We cannot assure you that any of our drug candidates will obtain such orphan drug designation, pediatric exclusivity, new chemical entity exclusivity or any other market exclusivity in the U.S., the EU or any other territory, or that we will be the first to receive the respective regulatory approval for such drugs so as to be eligible for any market exclusivity protection.

Our drug development efforts are focused currently on two compounds, zoptarelin doxorubicin and Macrilen™ (macimorelin), which are in clinical development, and on two oncology compounds, an Erk inhibitor (AEZS-134) and LHRH-disorazol Z (AEZS-138), which are in pre-clinical development. The following is a description of our intellectual property rights with respect to these compounds.

Zoptarelin doxorubicin:

We license intellectual property relating to LH-RH agonists and LH-RH antagonists carrying various cytotoxic radicals (including zoptarelin doxorubicin) from the Administrators of the Tulane Educational Fund ("Tulane") pursuant to a License Agreement dated September 17, 2002 (the "Tulane Agreement"). The Tulane Agreement grants to us an exclusive worldwide license for all therapeutic uses of LH-RH agonists and LH-RH antagonists carrying various cytotoxic radicals, to the extent covered by one of the patents listed below. The term of the Tulane Agreement continues for ten years after the first commercial sale of a product based on the licensed intellectual property (a

"Licensed Product") or until the expiration of the last to expire of the patents listed below, whichever is longer, on a country-by-country basis.

Pursuant to the Tulane Agreement, we are required to pay Tulane the following amounts: (i) US\$400,000 upon the first grant of regulatory approval for a Licensed Product in the United States, Canada, the European Union or Japan; (ii) 10% of all consideration received by us from a sublicensee for authorization to use the licensed intellectual property to develop, manufacture, market, distribute and sell a Licensed Product; (iii) 5% of our net sales of Licensed Products; and (iv) 50% of any royalties that we receive from a sublicensee with respect to its net sales of Licensed Products; provided, however, that the payment with respect to royalties received from a sublicensee shall not be less than 3.5% nor more than 5% of the sublicensee's net sales of the Licensed Product.

The following patents are covered by the Tulane Agreement:

U.S. patent 5,843,903 covers zopectarelin doxorubicin and other related targeted cytotoxic anthracycline analogs, pharmaceutical compositions comprising the compounds as well as their medical use for the treatment of cancer. This patent expires in November 2015.

European patent 0 863 917 B1 covers zopectarelin doxorubicin and other related targeted cytotoxic anthracycline analogs, pharmaceutical compositions comprising the compounds as well as their medical use for the treatment of tumors. This patent expires in November 2016.

Japanese patent 3 987 575 covers zopectarelin doxorubicin and other related targeted cytotoxic anthracycline analogs, pharmaceutical compositions comprising the compounds as well as their medical use for the treatment of tumors. This patent expires in November 2016.

Chinese patent ZL96198605.0 covers zopectarelin doxorubicin and other related targeted cytotoxic anthracycline analogs, pharmaceutical compositions comprising the compounds as well as their medical use for the treatment of tumors. This patent expires in November 2016.

Hong Kong patent 1017363 covers zopectarelin doxorubicin and other related targeted cytotoxic anthracycline analogs, pharmaceutical compositions comprising the compounds as well as their medical use for the treatment of tumors. This patent expires in November 2016.

Macimorelin:

U.S. patent 6,861,409 covers macimorelin and U.S. patent 7,297,681 covers other related growth hormone secretagogue compounds, each also covering pharmaceutical compositions comprising the compounds as well as their medical use for elevating the plasma level of growth hormone. U.S. patent 6,861,409 and U.S. patent 7,297,681 both expire in August 2022.

European patent 1 289 951 covers macimorelin and European patent 1 344 773 covers other related growth hormone secretagogue compounds, pharmaceutical compositions comprising the compounds as well as their medical use for elevating the plasma level of growth hormone. EP patent 1 289 951 and EP patent 1 344 773 both expire in June 2021.

Japanese patent 3 522 265 covers macimorelin and pharmaceutical compositions comprising the compounds as well as their medical use for elevating the plasma level of growth hormone. This patent expires in June 2021.

Canadian patent 2,407,659 covers macimorelin and pharmaceutical compositions comprising the compounds as well as their medical use for elevating the plasma level of growth hormone. This patent expires in June 2021.

U.S. patent 8,192,719 covers a method of assessing pituitary-related growth hormone deficiency in a human or animal subject comprising an oral administration of the compound macimorelin and determination of the level of growth hormone in the sample and assessing whether the level of growth hormone in the sample is indicative of growth hormone deficiency. This patent 8,192,719 expires in October 2027.

European patent 1 984 744 covers a method of assessing pituitary-related growth hormone deficiency by oral administration of macimorelin. This expires in February 2027.

Japanese patent 4 852 728 covers a method of assessing pituitary-related growth hormone deficiency by oral administration of macimorelin. This expires in February 2027.

Erk inhibitors (AEZS-134):

We own a number of patents that relate to our Erk inhibitors, of which AEZS-134 is our lead candidate.

U.S. patent 8,791,118 covers AEZS-134 as well as methods of treatment for this compound. This patent expires in May 2032 (including PTA).

European Patent Application No. EP2,694,067 covers AEZS-134 as well as methods of treatment for this compound. If granted, the EP patent would expire in April 2032.

Japanese patent application based on PCT/EP2012/056138 covers AEZS-134 as well as methods of treatment for this compound. If granted, the patent would expire in April 2032.

Disorazol Z - LHRH conjugates (AEZS-138):

U.S. patent 7,741,277 covers AEZS-138 (disorazole Z - LHRH conjugate). This patent will expire in January 2028 (including PTA).

U.S. patent 8,470,776 covers methods of treatment for compound AEZS-138 (disorazole Z - LHRH conjugate). This patent will expire in February 2029 (including PTA).

European patent application 2,066,679 covers AEZS-138 (disorazole Z - LHRH conjugate) as well as methods of treatment for this compound. If granted, this patent will expire in September 2027.

Japanese patent 5,340,155 covers AEZS-138 (disorazole Z - LHRH conjugate) as well as methods of treatment for this compound. This patent will expire in September 2027.

#### C. Organizational structure

Our corporate structure, the jurisdiction of incorporation of our direct and indirect subsidiaries and the percentage of shares that we held in those subsidiaries as at December 31, 2014 is depicted in the chart set forth under the caption "Item 4A. History and development of the Company".

#### D. Property, plants and equipment

Our corporate head office is located in Quebec City, Province of Quebec, Canada. The following table sets forth information with respect to our main facilities as at December 31, 2014.

| Location   | Use of space   | Square Footage | Type of interest |
|--|--|----------------|------------------|
| 1405 du Parc Technologique Blvd., Quebec City (Quebec), Canada | Fully occupied for management, R&D, administration, commercial operations and business development | 3,561          | Leasehold        |
| 315 Sigma Drive, Suite 302D, Summerville SC 29483              | Partially occupied for management, administration, commercial operations and business development  | 4,623          | Leasehold        |
| Weismüllerstr. 50<br>D-60314<br>Frankfurt-am-Main, Germany     | Partially occupied for management, R&D, business development and administration                    | 46,465         | Leasehold        |

Item 4A Unresolved Staff Comments

None.

## Item 5. Operating and Financial Review and Prospects

### Key Developments

#### Commercial Developments

During the fourth quarter, our full-time contract sales force of 19 sales representatives started the field selling in the US of EstroGel®, pursuant to the co-promotion services agreement (the "Co-promotion Agreement") entered into with ASCEND Therapeutics US LLC ("ASCEND") in August 2014. The Co-promotion Agreement provides that we or one of our subsidiaries detail and market ASCEND's leading non-patch transdermal hormone replacement therapy product, available under the name EstroGel®, in specific agreed-upon US territories, in exchange for a sales commission, which will be payable to us based upon incremental EstroGel® sales volumes that are generated over certain pre-established thresholds.

#### Product Candidate Developments

##### Zoptarelin Doxorubicin

During the year, we completed site initiation, with over 120 sites currently in operation, for our ZoptEC (Zoptarelin doxorubicin in Endometrial Cancer) Phase 3 trial in women with locally advanced, recurrent or metastatic endometrial cancer. To date, over 400 of the expected 500 patients have been entered into the trial. The ZoptEC Phase 3 trial is an open-label, randomized, multicenter trial conducted in North America, Europe and Israel under a Special Protocol Assessment ("SPA") with the FDA; it compares zoptarelin doxorubicin with doxorubicin as second line therapy. The primary efficacy endpoint is improvement in median Overall Survival.

On December 1, 2014, we entered into a master collaboration agreement, a Technology Transfer and Technical Assistance Agreement ("TTA") and a License Agreement ("LA") with Sinopharm A-Think Pharmaceuticals Co., Ltd. ("Sinopharm") for the development, manufacture and commercialization of zoptarelin doxorubicin ("the Product") in all human uses, in the People's Republic of China, including Hong Kong and Macau (collectively, "the Territory"). Under the terms of the TTA, Sinopharm made a one-time, non-refundable payment of \$1.1 million ("Transfer Fee") to us for the transfer of technical documentation and materials, know-how and technical assistance services.

Additionally, per the LA, we will be entitled to receive additional consideration upon achieving certain pre-established milestones, including the occurrence of certain regulatory and commercial events in the Territory. Furthermore, we will be entitled to receive royalties on future net sales of the Product in the Territory.

##### Macrilen™

On November 6, 2014, the FDA issued a Complete Response Letter ("CRL") for our New Drug Application ("NDA") for Macrilen™ in the evaluation of adult growth hormone deficiency ("AGHD"). Based on its review, the FDA determined that our NDA could not be approved in its form as submitted. The CRL stated that the planned analysis of our pivotal trial did not meet its stated primary efficacy objective as agreed to in the SPA agreement between the Company and the FDA, and that we will need to demonstrate the efficacy of macimorelin as a diagnostic test for growth hormone deficiency in a new, confirmatory clinical study. The CRL also stated that a serious event of electrocardiogram QT interval prolongation occurred for which attribution to drug could not be excluded. Therefore, a dedicated thorough QT study to evaluate the effect of macimorelin on the QT interval would be necessary. We intend to make a decision regarding the future development of Macrilen™ in the near term, taking into account various considerations, including our prior and upcoming discussions with the FDA.

##### Erk Inhibitors

On April 9, 2014, we announced that we had presented, at the American Association for Cancer Research Annual Meeting in San Diego, a poster, entitled Erk Inhibition as a Therapeutic Option for the Treatment of Raf- and Mek-Inhibitor Resistant Tumors, on AEZS-134, a highly potent and selective adenosine triphosphate competitive Erk inhibitor. The poster provided a rationale for new therapeutic opportunities in oncology with this compound, given that preclinical data suggest that Erk inhibitors such as AEZS-134 may provide a treatment option for patients suffering from tumors that are resistant to currently established therapies such as B-Raf and Mek inhibitors.

## Corporate Developments

### Establishment of Global Commercial Operations and Resource Optimization

On May 5, 2014, we announced that we had selected Charleston, South Carolina, as the new location for our North American business and global commercial operations. In conjunction with our plans and commitment to our Charleston office, we expect to be eligible to receive job development investment tax credits pursuant to approval received from the Coordinating Council for Economic Development of South Carolina.

On August 7, 2014, our Nominating, Governance and Compensation Committee approved our global resources optimization program (the "Resource Optimization Program"), which has been rolled out as part of our strategy to transition into a commercially operating specialty biopharmaceutical organization. The Resource Optimization Program, the goal of which is to streamline R&D activities and to increase commercial operations and flexibility, is expected to result in the termination of 30 employees. Employee departures under this program, which commenced during the first quarter of 2015, will continue through August 31, 2015. We expect that overall annualized savings upon completion of the Resource Optimization Program will amount to approximately \$2.3 million. Total restructuring costs associated with the Resource Optimization Program recorded during 2014 were approximately \$2.5 million, representing our estimated severance payments, onerous lease provision and other directly related costs. Our estimates of restructuring costs and annualized savings may be revised in future periods as new information becomes available.

### Public Offerings

On January 14, 2014, we completed a public offering of 11.0 million units, generating net proceeds of approximately \$12.2 million, with each unit consisting of one common share and 0.80 of a warrant to purchase one common share, at a purchase price of \$1.20 per unit (the "January 2014 Offering").

On March 11, 2015, we completed a public offering of 59,677,420 units (the "Units"), generating net proceeds of approximately \$34.5 million, with each Unit consisting of either one common share or one warrant to purchase one common share ("Series C Warrant"), 0.75 of a warrant to purchase one common share ("Series A Warrant") and 0.50 of a warrant to purchase one common share ("Series B Warrant"), at a purchase price of \$0.62 per Unit (the "March 2015 Offering"). The Series A Warrants are exercisable for a period of five years at an exercise price of \$0.81 per share, and the Series B Warrants are exercisable for a period of 18 months at an exercise price of \$0.81 per share. Both the Series A and Series B warrants are subject to certain anti-dilution provisions. The Series C Warrants are exercisable for a period of five years at an exercise price of \$0.62 per share. Total gross proceeds payable to us in connection with the exercise of the Series C Warrants have been pre-paid by investors and therefore are included in the aforementioned proceeds.

In connection with the March 2015 Offering, the holders of 21,123,332 of the 21,900,000 outstanding warrants issued by us in connection with a previous public offering of units in November 2013 and with the January 2014 Offering, as defined above, entered into an amendment agreement that caused such previously issued warrants to expire and terminate in exchange of a cash payment made by us in the aggregate amount of approximately \$5.7 million.

### "At-the-Market" Issuance Program

Between July 1, 2014 and December 31, 2014, we issued a total of approximately nine million common shares under our At-the-Market ("ATM") sales agreement entered into May 2014 with MLV & Co. LLC (the "May 2014 ATM Program"), at an average price of \$1.36 for aggregate gross proceeds of approximately \$12.2 million, less cash and non-cash transaction costs of approximately \$0.4 million. The May 2014 ATM Program provides that we may, at our discretion, from time to time during the term of the sales agreement, sell up to a maximum of 14.0 million of our common shares through ATM issuances on the NASDAQ, up to an aggregate amount of \$15 million.

### NASDAQ Minimum Bid Price Compliance

On December 18, 2014, we received a notice from the NASDAQ regarding our failure to comply with the NASDAQ's \$1.00 minimum bid price requirement. The Company has 180 calendar days, or until June 16, 2015, to regain compliance with the minimum bid price requirement.

### Status of Our Drug Pipeline

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- (1) Phase 2 trial in ovarian cancer completed.
- (2) Investigator-driven and sponsored.
- (3) Currently evaluating options and future plans after issuance of CRL from the FDA.
- (4) Potential oral prostate cancer vaccine available for out-licensing.
- (5) Sponsored entirely by licensees.

We are focused on advancing our ZoptEC Phase 3 program with zoptarelin doxorubicin in endometrial cancer, as discussed further below, and on evaluating our options for Macrilen™ for the evaluation of AGHD.

As for our compounds in earlier stages of development, as part of the Resource Optimization Program, we have decided to streamline our drug discovery activities and focus on specific projects related to our Erk inhibitors and our LHRH-disorazol Z product candidates. Regarding our Erk inhibitors program, we are looking to select an optimized molecule for development in the first half of 2015.

Our investment in the development of Erk inhibitors and our LHRH-disorazol Z product candidate will depend on the level of liquidity available to fund our R&D activities.

#### Consolidated Statements of Comprehensive Income (Loss) Information

| (in thousands, except share and per share data)                            | Three-month periods ended December 31, |            | Years ended December 31, |            |            |
|--|--|------------|--------------------------|------------|------------|
|  | 2014                                   | 2013       | 2014                     | 2013       | 2012       |
|  | \$                                     | \$         | \$                       | \$         | \$         |
| Revenues   |  |            |                          |            |            |
| Sales  | —                                      | —          | —                        | 96         | 834        |
| License fees   | 11                                     | —          | 11                       | 6,079      | 1,219      |
|  | 11                                     | —          | 11                       | 6,175      | 2,053      |
| Operating expenses   |  |            |                          |            |            |
| Cost of sales  | —                                      | —          | —                        | 51         | 591        |
| Research and development costs, net of refundable tax credits and grants   | 6,282                                  | 5,345      | 23,716                   | 21,284     | 20,592     |
| Selling, general and administrative expenses                               | 4,676                                  | 2,627      | 13,690                   | 12,316     | 10,606     |
|  | 10,958                                 | 7,972      | 37,406                   | 33,651     | 31,789     |
| Loss from operations   | (10,947 )                              | (7,972 )   | (37,395 )                | (27,476 )  | (29,736 )  |
| Finance income   | 15,053                                 | 65         | 20,319                   | 1,748      | 6,974      |
| Finance costs  | —                                      | (2,689 )   | —                        | (1,512 )   | (382 )     |
| Net finance income (costs)   | 15,053                                 | (2,624 )   | 20,319                   | 236        | 6,592      |
| Income (loss) before income taxes  | 4,106                                  | (10,596 )  | (17,076 )                | (27,240 )  | (23,144 )  |
| Income tax expense   | (111 )                                 | —          | (111 )                   | —          | —          |
| Net income (loss) from continuing operations                               | 3,995                                  | (10,596 )  | (17,187 )                | (27,240 )  | (23,144 )  |
| Net income from discontinued operations                                    | 158                                    | 2,353      | 623                      | 34,055     | 2,732      |
| Net income (loss)  | 4,153                                  | (8,243 )   | (16,564 )                | 6,815      | (20,412 )  |
| Other comprehensive income (loss):   |  |            |                          |            |            |
| Items that may be reclassified subsequently to profit or loss:             |  |            |                          |            |            |
| Foreign currency translation adjustments                                   | (677 )                                 | 424        | (1,158 )                 | 1,073      | (504 )     |
| Items that will not be reclassified to profit or loss:                     |  |            |                          |            |            |
| Actuarial gain (loss) on defined benefit plans                             | 1,336                                  | 2,346      | (1,833 )                 | 2,346      | (3,705 )   |
| Comprehensive income (loss)  | 4,812                                  | (5,473 )   | (19,555 )                | 10,234     | (24,621 )  |
| Net income (loss) per share (basic and diluted) from continuing operations | 0.06                                   | (0.28 )    | (0.29 )                  | (0.92 )    | (1.17 )    |
| Net income (basic and diluted) from discontinued operations                | —                                      | 0.06       | 0.01                     | 1.16       | 0.14       |
| Net income (loss) (basic and diluted) per share                            | 0.06                                   | (0.22 )    | (0.28 )                  | 0.24       | (1.03 )    |
| Weighted average number of shares outstanding:                             |  |            |                          |            |            |
| Basic  | 65,383,290                             | 37,274,129 | 59,024,730               | 29,476,455 | 19,775,073 |
| Diluted  | 65,383,290                             | 37,274,129 | 59,024,730               | 29,476,455 | 19,806,687 |



## 2014 compared to 2013

## Revenues

Revenues are derived predominantly from license fees, which include the amortization of upfront payments received from our licensees and R&D contract service fees.

Sales revenues are derived from the sale of active pharmaceutical ingredients, or raw materials, to licensees. Periodic variations of sales, and, consequently, of cost of sales, are attributable to the R&D needs of the requesting licensee.

Revenues recorded during the year ended December 31, 2013 resulted predominantly from the non-recurring, accelerated recognition of remaining unamortized deferred revenue associated with an upfront payment received from a licensee following the termination of related R&D activities.

We expect revenues during the year ended December 31, 2015 to be higher than those recorded during the year ended December 31, 2014 due to the initial recognition of the Transfer Fee and due to sales commission revenue that we expect to begin generating in connection with our sales efforts related to EstroGel<sup>®</sup>, provided that we are able to begin to exceed the pre-established baselines outlined in the Co-promotion Agreement.

## Operating Expenses

R&D costs, net of refundable tax credits and grants, were \$6.3 million and \$23.7 million for the three-month period and the year ended December 31, 2014, respectively, compared to \$5.3 million and \$21.3 million for the same periods in 2013.

The increase for the year ended December 31, 2014, as compared to the same period in 2013, is attributable to higher comparative employee compensation and benefits costs, which in turn are mainly due to the recording of R&D restructuring costs. Following the approval of the Resource Optimization Program, discussed above, we recorded a provision for restructuring costs, amounting to approximately \$2.5 million, for severance payments, onerous lease provision and other directly related costs associated with the Resource Optimization Program. This increase is partly offset by lower comparative salaries and short-term employee benefits and share-based compensation costs.

The following table summarizes our net R&D costs by nature of expense:

| (in thousands)                     | Three-month periods<br>ended December 31, |       | Years ended December 31, |        |        |
|------------------------------------|---|-------|--------------------------|--------|--------|
|                                    | 2014                                      | 2013  | 2014                     | 2013   | 2012   |
|                                    | \$  | \$    | \$                       | \$     | \$     |
| Third-party costs                  | 3,967                                     | 2,828 | 11,356                   | 10,049 | 8,679  |
| Employee compensation and benefits | 1,231                                     | 1,629 | 8,430                    | 7,864  | 8,590  |
| Facilities rent and maintenance    | 887                                       | 466   | 2,160                    | 1,758  | 1,661  |
| Other costs*                       | 197                                       | 540   | 1,901                    | 2,130  | 2,530  |
| R&D tax credits and grants         | —   | (118) | (131)                    | (517)  | (868)  |
|                                    | 6,282                                     | 5,345 | 23,716                   | 21,284 | 20,592 |

\* Includes depreciation, amortization, impairment charges and onerous lease provision recognized.

The following table summarizes primary third-party R&D costs, by product candidate, incurred by the Company during the three-month periods ended December 31, 2014 and 2013.

| (in thousands, except percentages)  | Three-month periods ended December 31, |       |       |       |
|-------------------------------------|--|-------|-------|-------|
|                                     | 2014                                   |       | 2013  |       |
| Product Candidate                   | \$                                     | %     | \$    | %     |
| Zoptarelin doxorubicin              | 3,609                                  | 91.0  | 1,667 | 58.9  |
| Macrilen <sup>™</sup> , macimorelin | 192                                    | 4.8   | 284   | 10.0  |
| Erk inhibitors                      | 112                                    | 2.8   | 312   | 11.0  |
| LHRH - Disorazol Z                  | 54                                     | 1.4   | 139   | 4.9   |
| Other                               | —                                      | —     | 426   | 15.2  |
|                                     | 3,967                                  | 100.0 | 2,828 | 100.0 |



The following table summarizes primary third-party R&D costs, by product candidate, incurred by the Company during the years ended December 31, 2014, 2013 and 2012.

| Product Candidate                  | Years ended December 31, |       |        |       |       |       |
|------------------------------------|--------------------------|-------|--------|-------|-------|-------|
|                                    | 2014                     |       | 2013   |       | 2012  |       |
| (in thousands, except percentages) | \$                       | %     | \$     | %     | \$    | %     |
| Zoptarelin doxorubicin             | 9,668                    | 85.1  | 4,934  | 49.1  | 2,133 | 24.6  |
| Erk inhibitors                     | 488                      | 4.3   | 1,128  | 11.2  | 1,727 | 19.9  |
| Macrilen™, macimorelin             | 404                      | 3.6   | 1,238  | 12.3  | 112   | 1.3   |
| LHRH - Disorazol Z                 | 257                      | 2.3   | 659    | 6.6   | 331   | 3.8   |
| Perifosine                         | 196                      | 1.7   | 1,134  | 11.3  | 3,801 | 43.8  |
| Other                              | 343                      | 3.0   | 956    | 9.5   | 575   | 6.6   |
|                                    | 11,356                   | 100.0 | 10,049 | 100.0 | 8,679 | 100.0 |

As shown above, a substantial portion of the increase in 2013-to-2014 quarter-to-date and year-to-date third-party R&D costs relates to development initiatives associated with zoptarelin doxorubicin, and in particular with our Phase 3 ZoptEC trial initiated in 2013 with Ergomed Clinical Research Ltd. ("Ergomed"), the contract clinical development organization with which, in April 2013, we entered into a co-development and profit sharing agreement. This increase is partially offset by the lower comparative development costs associated with most of our other product candidates. During the year ended December 31, 2014, ongoing services provided by Ergomed included the conducting of initiation and monitoring visits at various clinical sites, screening and enrolment initiatives, investigation-related management and analysis and regulatory support. ZoptEC-related efforts are progressing in accordance with pre-established timelines. As we continue to closely monitor all initiatives supported by Ergomed, we may decide to revise some of the trial's parameters or expand the scope of work performed by Ergomed, and consequently, total estimated costs in connection with the co-development and revenue sharing agreement may be adjusted. To date, our arrangement with Ergomed has been revised following our decision to open additional clinical sites and to perform additional sub-studies, resulting in estimated cost increases of approximately \$1.8 million, as compared to our original estimate.

Excluding the impact of foreign exchange rate fluctuations, we expect net R&D costs for 2015 to slightly decrease, as compared to 2014, due to the realization of cost savings in connection with the Resource Optimization Program, offset partially by slightly higher third-party R&D costs in connection with our Phase 3 ZoptEC trial. Based on currently available information and forecasts, we expect that we will incur net R&D costs of between \$21 million and \$23 million for the year ended December 31, 2015.

Selling, general and administrative ("SG&A") expenses were \$4.7 million and \$13.7 million for the three-month period and the year ended December 31, 2014, respectively, compared to \$2.6 million and \$12.3 million for the same periods in 2013.

For the three-month period ended December 31, 2014, the increase in SG&A expenses, as compared to the same period in 2013, is mainly related to the deployment of our contracted sales force, which is currently detailing EstroGel®, and higher comparative operating foreign exchange losses.

For the year ended December 31, 2014, the increase in SG&A expenses, as compared to the same period in 2013, is mainly related to higher comparative operating foreign exchange losses, the ramping up of our pre-commercialization activities, the deployment of our contracted sales force related to our co-promotion activities and the recording of restructuring costs related to administrative staff redundancies resulting from the Resource Optimization Program. During 2015, excluding the impact of foreign exchange rate fluctuations and the recording of transaction costs related to potential financing activities (not currently known or estimable), we expect SG&A expenses to remain broadly in line with expenditures incurred during the year ended December 31, 2014, despite the fact that our contracted sales force is expected to detail EstroGel® during the full year 2015, as compared to less than two months in 2014. This year-over-year increase, associated with our co-promotion activities, is expected to be offset by lower marketing and other pre-commercialization expenses related to Macrilen™ and by lower termination benefit expenses.



Net finance income (costs) are comprised predominantly of the change in fair value of warrant liability and of gains and losses recorded due to changes in foreign currency exchange rates, as presented below.

|   | Three-month periods<br>ended December 31, |          | Years ended December 31, |          |        |
|---|---|----------|--------------------------|----------|--------|
|   | 2014                                      | 2013     | 2014                     | 2013     | 2012   |
|   | \$  | \$       | \$                       | \$       | \$     |
| Finance income  |   |          |                          |          |        |
| Change in fair value of warrant liability                   | 14,079                                    | —        | 18,272                   | 1,563    | 6,746  |
| Gains due to changes in foreign currency<br>exchange rates  | 924                                       | —        | 1,879                    | —        | —      |
| Interest income   | 50  | 65       | 168                      | 185      | 228    |
|   | 15,053                                    | 65       | 20,319                   | 1,748    | 6,974  |
| Finance costs   |   |          |                          |          |        |
| Change in fair value of warrant liability                   | —   | (1,884 ) | —                        | —        | —      |
| Losses due to changes in foreign currency<br>exchange rates | —   | (805 )   | —                        | (1,512 ) | (382 ) |
|   | —   | (2,689 ) | —                        | (1,512 ) | (382 ) |
|   | 15,053                                    | (2,624 ) | 20,319                   | 236      | 6,592  |

The change in fair value of our warrant liability results from the periodic "mark-to-market" revaluation, via the application of the Black-Scholes option pricing model, of currently outstanding share purchase warrants. The Black-Scholes "mark-to-market" warrant valuation most notably has been impacted by the issuance of 8.8 million additional share purchase warrants and by the closing price of our common shares, which, on the NASDAQ, has fluctuated from \$0.52 to \$1.50 during the year ended December 31, 2014 and from \$1.03 to \$3.23 for the same period in 2013.

With specific reference to 2014, we recorded substantial fair value gains on our warrant liability, resulting from the significant reduction in our share price following our announcement, in November, that the FDA had issued a CRL in connection with our NDA for Macrilen™. The lower closing price of our shares following our announcement of the CRL has resulted in a lower Black-Scholes valuation of our outstanding share purchase warrants during the fourth quarter of 2014.

Gains or losses due to changes in foreign currency exchange rates are mainly related to the US dollar, which strengthened against the euro ("EUR") by approximately 4.2% and 12.2%, during the three-month and twelve-month periods ended December 31, 2014, respectively. During the three-month and twelve-month periods ended December 31, 2013, however, the US dollar weakened against the EUR by approximately 2.0% and 4.5%, respectively.

Net income (loss) from continuing operations for the three-month period and the year ended December 31, 2014 was \$4.0 million and \$(17.2) million, or \$0.06 and \$(0.29) per basic and diluted share, respectively, compared to \$(10.6) million and \$(27.2) million, or \$(0.28) and \$(0.92) per basic and diluted share for the same periods in 2013.

The increase in net income from continuing operations for the three-month period ended December 31, 2014, as compared to the same period in 2013, is due to the higher comparative net finance income, partly offset by higher comparative R&D and SG&A expenses, as presented above.

The decrease in net loss from continuing operations for the year ended December 31, 2014, as compared to the same period in 2013, is due largely to higher comparative net finance income, partly offset by lower comparative license fee revenues and by higher comparative net R&D costs and SG&A expenses, as presented above.

#### Discontinued Operations

Following a strategic review of our risk and prospects with respect to the manufacturing of Cetrotide® and related activities (collectively, the "Cetrotide® Business"), and, in particular, having taken into account, as discussed below, the previous monetization of the corresponding royalty stream, we decided to transfer all manufacturing rights of Cetrotide® and to discontinue our involvement with the Cetrotide® Business. On April 3, 2013 (the "Effective Date"), we entered into a transfer and service agreement ("TSA") and concurrent agreements with various partners and

licensees with respect to our manufacturing rights for Cetrotide<sup>®</sup>, marketed for therapeutic use as part of in vitro fertilization programs. The principal effect of these agreements was to transfer, effective October 1, 2013 (the "Closing Date"), our manufacturing rights for Cetrotide<sup>®</sup> to Merck Serono in all territories. Also per the TSA, we agreed to provide certain transition services to Merck Serono over a

period of 36 months from the Effective Date in order to assist Merck Serono in managing overall responsibility for the Cetrotide® Business.

Under the TSA, during the period commencing on the Effective Date and ending on the Closing Date (the "Interim Period"), we were obligated to continue to conduct the Cetrotide® Business in the ordinary course in a manner consistent with past practices, subject to certain conditions. Per the TSA, we received a non-refundable, one-time payment of €2.5 million (approximately \$3.3 million) in consideration for the transfer of our manufacturing rights referred to above, as well as other payments in exchange for the transfer, also on the Closing Date, of certain assets, such as inventory and equipment used solely for the manufacture of Cetrotide®. We recognized the non-refundable, one-time payment on the Closing Date, as we no longer had managerial involvement or effective control over the manufacturing of goods sold through the Cetrotide® Business. We provide the aforementioned transition services to Merck Serono in exchange for a monthly service fee.

As a result of the transfer of substantially all of the risks and rewards associated with the Cetrotide® Business on the Closing Date, the Cetrotide® Business has been classified as a discontinued operation in the consolidated financial statements. As such, relevant amounts in our consolidated statements of comprehensive (loss) income have been retroactively reclassified to reflect the Cetrotide® Business as a discontinued operation.

| (in thousands)  | Three-month periods<br>ended December 31, |         | Years ended December 31, |        |        |
|---|---|---------|--------------------------|--------|--------|
|   | 2014                                      | 2013    | 2014                     | 2013   | 2012   |
|   | \$  | \$      | \$                       | \$     | \$     |
| Revenues  |   |         |                          |        |        |
| Sales and royalties   | —   | 3,057   | —                        | 63,755 | 30,704 |
| License fees and other*                                       | 118                                       | 3,717   | 1,037                    | 4,589  | 908    |
|   | 118                                       | 6,774   | 1,037                    | 68,344 | 31,612 |
| Operating expenses  |   |         |                          |        |        |
| Cost of sales   | —   | 3,071   | —                        | 30,002 | 26,229 |
| Research and development costs, net of tax credits and grants | 8   | —       | 25                       | 8      | 12     |
| Selling, general and administrative expenses                  | (48                                       | ) 1,350 | 389                      | 4,279  | 2,639  |
|   | (40                                       | ) 4,421 | 414                      | 34,289 | 28,880 |
| Net income from discontinued operations                       | 158                                       | 2,353   | 623                      | 34,055 | 2,732  |

\* Includes the non-refundable, one-time payment made by Merck Serono in exchange for the manufacturing rights for Cetrotide® and revenues from certain transition services provided pursuant to the aforementioned agreement.

The decrease in sales and royalties from discontinued operations, in cost of sales from discontinued operations and in SG&A expenses from discontinued operations during the three-month period and the year ended December 31, 2014, as compared to the same periods in 2013, reflects the fact that we recorded no sales of Cetrotide® and royalties during the three-month period and the year ended December 31, 2014, as compared to the corresponding period of 2013, given that the transfer of the Cetrotide® Business was effective on October 1, 2013.

Net income (loss)

Net income (loss) for the three-month period and the year ended December 31, 2014 was \$4.2 million and \$(16.6) million, or \$0.06 and \$(0.28) per basic and diluted share, respectively, compared to \$(8.2) million and \$6.8 million, or \$(0.22) and \$0.24 per basic and diluted share, for the same periods in 2013.

The increase in net income for the three-month period ended December 31, 2014, as compared to the same period in 2013, is due largely to higher comparative net finance income, offset partially by higher comparative operating expenses and by lower net income from discontinued operations.

The decrease in net income for the year ended December 31, 2014, as compared to the same period in 2013, is due largely to higher loss from operations and to lower net income from discontinued operations, partially offset by higher comparative net finance income.



2013 compared to 2012

#### Revenues

License fees and other revenues were \$6.1 million for the year ended December 31, 2013, as compared to \$1.2 million for the same period in 2012.

In March 2011, we entered into an agreement with Yakult for the development, manufacture and commercialization of perifosine in all human uses, excluding leishmaniasis, in Japan. Under the terms of this agreement, Yakult had made an initial, non-refundable gross upfront payment to the Company of approximately \$8.4 million. We recorded this upfront payment as deferred revenues and commenced amortizing the underlying proceeds on a straight-line basis over the estimated life cycle of perifosine in colorectal cancer ("CRC") and multiple myeloma ("MM").

On April 1, 2012, following negative results of a Phase 3 study of perifosine in CRC, we discontinued the perifosine program in that indication. Furthermore, in March 2013, following an analysis of interim results of the Phase 3 study of perifosine in MM, we also discontinued the development of perifosine in the MM indication. Given these results and the termination of these studies, we determined that we no longer had significant obligations under the agreement with Yakult to continue with the development of perifosine, and we recognized, in March 2013, the remaining unamortized amount of deferred revenue of \$5.9 million related to the above licensing agreement.

On a year-over-year basis, the increase in license fees and other revenues is therefore attributable to the earlier-than-expected recognition of the previously deferred upfront license payment received from Yakult, following the discontinuance of our development of perifosine and given that the earnings process associated with this compound as pertaining to the upfront proceeds received was deemed to be complete.

#### Operating Expenses

R&D costs, net of refundable tax credits and grants, were \$21.3 million for the year ended December 31, 2013, compared to \$20.6 million for the same period in 2012.

Third-party R&D costs were \$10.0 million for the year ended December 31, 2013, as compared to \$8.7 million for the same period in 2012. This increase mainly results from the higher development costs associated with zoptarelin doxorubicin, and in particular with our Phase 3 ZoptEC trial initiated in 2013 with Ergomed, as discussed above.

Additionally, we incurred higher development costs in 2013 related to Macrilen™ and macimorelin, primarily consisting of the purchase of active pharmaceutical ingredients. These increases were partly offset by the lower comparative development costs associated with perifosine, given that we have decided not to make any further investment in this product candidate, as discussed above, and by the lower preclinical study-related costs associated with our Erk/PI3K inhibitors program.

Third-party R&D costs also increased during the year ended December 31, 2013 due to higher expenditures associated with our disorazol Z product candidates, pursuant to a variety of collaboration agreements with various universities and institutes, and to the purchase of active pharmaceutical ingredients.

Selling, general and administrative ("SG&A") expenses were \$12.3 million for the year ended December 31, 2013, compared to \$10.6 million for the same period in 2012. This increase is mainly related to the recognition in the second quarter of 2013 of non-recurring termination benefits (approximately \$1.4 million) paid to our former Chief Executive Officer and to the recording of related non-cash share-based compensation costs, amounting to approximately \$0.7 million.

Net finance income totaled \$0.2 million for the year ended December 31, 2013, as compared to \$6.6 million for the same period in 2012. This decrease is mainly due to the decrease in net gain related to the change in fair value of our warrant liability and the increase in losses due to changes in foreign currency exchange rates.

The change in fair value of our warrant liability results from the "mark-to-market" revaluation, via the application of the Black-Scholes option pricing model, of currently outstanding share purchase warrants. The Black-Scholes "mark-to-market" warrant valuation most notably has been impacted by the closing price of our common shares, which, on the NASDAQ, fluctuated between \$1.03 and \$3.23 during the year ended December 31, 2013.

Gains or losses due to changes in foreign currency exchange rates are mainly related to the US dollar, which weakened against the EUR by approximately 3.3% from 2012 to 2013.



Net loss from continuing operations for the year ended December 31, 2013 was \$27.2 million, or \$0.92 per basic and diluted share, compared to \$23.1 million or \$1.17 per basic and diluted share for the same period in 2012.

The increase in net loss from continuing operations for the year ended December 31, 2013, as compared to 2012, is due largely to the recording of non-recurring termination benefits and related non-cash share-based compensation costs, lower comparative net finance income and higher comparative net R&D costs, partially offset by higher comparative license fee revenues, largely associated with the accelerated recognition of remaining net unamortized amount of deferred revenues related to the licensing agreement entered into with Yakult, as discussed above.

#### Discontinued Operations

Sales and royalties related to discontinued operations were comprised of both net sales of Cetrotide® and royalties, which represented the amortization, under the units-of-revenue method, of the proceeds received pursuant to a transaction with Healthcare Royalty Partners L.P. (formerly Cowen Healthcare Royalty Partners L.P.) ("HRP"), in which we monetized our royalty stream related to Cetrotide®. In this transaction, we had received a payment of \$52.5 million, less certain transaction costs, from HRP in exchange for our rights to royalties on future net sales of Cetrotide® generated by Merck Serono.

We had initially recorded the proceeds received from HRP as deferred revenue due to our then significant continuing involvement with the Cetrotide® Business. However, as of the Closing Date, there was no basis to continue amortizing the deferred revenue associated with HRP, primarily due to the fact that we no longer had significant continuing involvement in the Cetrotide® Business. As such, commencing on the Effective Date, we accelerated the amortization of the remaining deferred revenues of approximately \$31.9 million over the Interim Period, by continuing to apply the units-of-revenue method, which is consistent with past practice. The remaining deferred revenues were fully amortized through the end of September 2013.

Sales and royalties from discontinued operations were \$63.8 million for the year ended December 31, 2013, as compared to \$30.7 million for the same period in 2012. This increase is primarily due to the accelerated amortization of deferred revenues mentioned above.

The substantial license fees and other revenues from discontinued operations recorded during the year ended December 31, 2013, and as compared to the years ended December 31, 2012 and 2014, are primarily attributable to the recognition, on the Closing Date, of the non-refundable, one-time payment made by Merck Serono, as discussed above.

Cost of sales from discontinued operations were \$30.0 million for the year ended December 31, 2013, as compared to \$26.2 million for the same period in 2012. Cost of sales from discontinued operations increased in 2013, as compared to 2012, as a result of the higher comparative volume of Cetrotide® product sales, including the sale of inventory assets to Merck Serono, as mentioned above.

For the year ended December 31, 2013, cost of sales as a percentage of sales and royalties decreased to approximately 47.1%, as compared to 85.4% for the same period in 2012, predominantly due to the accelerated recognition of royalties as mentioned above.

SG&A expenses from discontinued operations amounted to \$4.3 million for the year ended December 31, 2013, as compared to \$2.6 million for the same period in 2012. The year-over-year increase is largely attributable to the recording of a provision for certain non-cancellable contracts related to the Cetrotide® Business that were deemed onerous due to the fact that management expected no economic benefits to flow to the Company following the transfer of the Cetrotide® Business on the Closing Date. The provisions for onerous contracts recognized total \$1.3 million and represent the present value of estimated unavoidable future royalty and patent costs associated with the intellectual property underlying Cetrotide®.

Net income from discontinued operations was \$34.1 million for the year ended December 31, 2013, as compared to \$2.7 million for the same period in 2012. The comparative increase reflects the net impact of items discussed above, and in particular, are influenced in large part by the inclusion of the accelerated recognition of previously deferred remaining HRP-related revenues as discontinued operations.

Net income (loss) for the year ended December 31, 2013 was \$6.8 million, or \$0.24 per basic and diluted share, compared to \$(20.4) million, or \$(1.03) per basic and diluted share for the same period in 2012.

The comparative year-over-year decrease in net loss is mainly due to higher net income from discontinued operations and higher revenues, partially compensated by higher operating costs and lower finance income.

## Quarterly Consolidated Results of Operations Information

| (in thousands, except for per share data)                                   | Three-month periods ended |                       |                  |                |
|---|---------------------------|-----------------------|------------------|----------------|
|   | December 31,<br>2014      | September 30,<br>2014 | June 30,<br>2014 | March 31, 2014 |
|   | \$                        | \$                    | \$               | \$             |
| Revenues  | 11                        | —                     | —                | —              |
| Loss from operations  | (10,947                   | ) (9,843              | ) (8,410         | ) (8,195       |
| Net income (loss) from continuing operations                                | 3,995                     | (11,629               | ) (5,249         | ) (4,304       |
| Net income (loss)   | 4,153                     | (11,337               | ) (5,024         | ) (4,356       |
| Net income (loss) per share from continuing operations (basic and diluted)* | 0.06                      | (0.20                 | ) (0.09          | ) (0.08        |
| Net income (loss) per share (basic and diluted)*                            | 0.06                      | (0.20                 | ) (0.09          | ) (0.08        |

| (in thousands, except for per share data)                                   | Three-month periods ended |                       |                  |                |
|---|---------------------------|-----------------------|------------------|----------------|
|   | December 31,<br>2013      | September 30,<br>2013 | June 30,<br>2013 | March 31, 2013 |
|   | \$                        | \$                    | \$               | \$             |
| Revenues  | —                         | 17                    | 96               | 6,062          |
| Loss from operations  | (7,972                    | ) (8,648              | ) (9,693         | ) (1,163       |
| Net (loss) income from continuing operations                                | (10,596                   | ) (7,799              | ) (9,848         | ) 1,003        |
| Net (loss) income   | (8,243                    | ) 3,842               | 9,330            | 1,886          |
| Net (loss) income per share from continuing operations (basic and diluted)* | (0.28                     | ) (0.26               | ) (0.39          | ) 0.04         |
| Net (loss) income per share (basic and diluted)*                            | (0.22                     | ) 0.13                | 0.37             | 0.07           |

\* Net income (loss) per share is based on the weighted average number of shares outstanding during each reporting period, which may differ on a quarter-to-quarter basis. As such, the sum of the quarterly net income (loss) per share amounts may not equal year-to-date net (loss) income per share.

Historical quarterly results of operations and net income (loss) from continuing operations cannot be taken as reflective of recurring revenue or expenditure patterns or of predictable trends, largely given the non-recurring nature of certain components of our historical revenues due most notably to the accelerated recognition of upfront payments and to unpredictable quarterly variations attributable to our net finance income (costs), which in turn are comprised of the impact of the periodic "mark-to-market" revaluation of our warrant liability and of foreign exchange gains and losses. Additionally, our net R&D costs historically have varied on a quarter-over-quarter basis due to the ramping up or winding down of potential product candidate activities, which in turn are dependent upon a number of factors that often do not occur on a linear or predictable basis.

More recently, our SG&A expenses have increased on a quarter-over-quarter basis due to the ramping up of pre-commercialization activities associated with Macrilen™ (prior to the receipt of the CRL from the FDA) and to the deployment of our contracted sales force related to our co-promotion activities associated with EstroGel®.

In addition to the items referred to above, our net income (loss) also has been impacted by net variations attributable to the Cetrotide® Business, which, as discussed above, has been presented on a retrospective basis within discontinued operations.

## Consolidated Statement of Financial Position Information

| (in thousands)                                       | As at December 31, |        |
|--|--------------------|--------|
|  | 2014               | 2013   |
|  | \$                 | \$     |
| Cash and cash equivalents <sup>1</sup>               | 34,931             | 43,202 |
| Trade and other receivables and other current assets | 1,286              | 2,453  |
| Restricted cash equivalents                          | 760                | 865    |
| Property, plant and equipment                        | 797                | 1,351  |
| Other non-current assets                             | 9,661              | 11,325 |
| Total assets   | 47,435             | 59,196 |
| Payables and other current liabilities <sup>2</sup>  | 7,304              | 7,242  |
| Current portion of deferred revenues                 | 270                | —      |
| Warrant liability                                    | 8,225              | 18,010 |
| Non-financial non-current liabilities <sup>3</sup>   | 17,152             | 16,880 |
| Total liabilities                                    | 32,951             | 42,132 |
| Shareholders' equity                                 | 14,484             | 17,064 |
| Total liabilities and shareholders' equity           | 47,435             | 59,196 |

<sup>1</sup> Of which approximately \$3.6 million was denominated in EUR as at December 31, 2014.

<sup>2</sup> Of which approximately \$1.5 million is related to a provision for restructuring costs.

<sup>3</sup> Comprised mainly of employee future benefits, provisions for onerous contracts and non-current portion of deferred revenues.

The decrease in cash and cash equivalents as at December 31, 2014, as compared to December 31, 2013, is due to variations in components of our working capital and to recurring disbursements, as well as to the effect of exchange rate fluctuations, partially offset by the receipt of net proceeds of \$12.2 million in connection with the January 2014 Offering, of \$11.9 million pursuant to drawdowns made under the May 2014 ATM Program and of \$0.3 million pursuant to drawdowns made under a previous ATM sales agreement program, entered into in May 2013 and discontinued in connection with the implementation of the May 2014 ATM Program.

The decrease in trade and other receivables and other current assets as at December 31, 2014, as compared to December 31, 2013, is mainly due to lower trade accounts receivable related to discontinued operations.

The decrease in other non-current assets as at December 31, 2014, as compared to December 31, 2013, is primarily due to the lower comparative exchange rate of the EUR against the US dollar, which weakened from December 31, 2013 to December 31, 2014. The decrease is also due to the net reduction in the carrying value of our identifiable intangible assets, for which we recognized an impairment loss of approximately \$0.2 million, pursuant to the implementation of the Resource Optimization Program, discussed above.

The increase in payables and other current liabilities as at December 31, 2014, as compared to December 31, 2013, is due to the recording of a provision for restructuring costs related to the Resource Optimization Program, discussed above, to the higher comparative trade accounts payable balances due to the increased number of patients that have been entered into our ZoptEC Phase 3 program and to costs incurred in connection with the deployment of our contracted sales force, partially offset by lower comparative trade accounts payable balances related to the Cetrotide<sup>®</sup> Business as well as by the lower comparative exchange rate of the EUR against the US dollar.

Our warrant liability decreased from December 31, 2013 to December 31, 2014. The decrease is due to net fair value revaluation gains of \$18.3 million, which were recorded pursuant to our periodic "mark-to-market" revaluation of the underlying outstanding share purchase warrants, as discussed above and was partly offset by the issuance of 8.8 million additional share purchase warrants in connection with the January 2014 Offering, which initially had increased our warrant liability by \$8.5 million.

The decrease in shareholders' equity as at December 31, 2014, as compared to December 31, 2013, is mainly attributable to the increase in our deficit due to the recording of net loss and actuarial loss on pension-related

employee benefit obligation and to the increase in our accumulated other comprehensive loss due to foreign currency translation adjustments, partly offset by the increase in our share capital following the issuance of common shares discussed above.

## Financial Liabilities, Obligations and Commitments

We have certain contractual lease obligation commitments as well as other long-term obligations related to unfunded benefit pension plans and unfunded post-employment benefit plans. The following tables summarize future cash requirements with respect to these obligations.

Expected future minimum lease payments and future minimum sublease receipts under non-cancellable operating leases (subleases) as well as future payments in connection with utility service agreements are as follows:

| (in thousands)   | As at December 31, 2014 |                 |
|------------------|-------------------------|-----------------|
|                  | Minimum lease payments  | Sublease income |
|                  | \$                      | \$              |
| Less than 1 year | 1,678                   | (392)           |
| 1 – 3 years      | 1,352                   | (493)           |
| 4 – 5 years      | 325                     | (19)            |
| Total            | 3,355                   | (904)           |

With regard to our lease arrangement in Germany for laboratory, office and storage space, we do not expect to renew the agreement beyond the end of its original term (expiry of March 2016), and we are examining options for alternative space to accommodate remaining German-based staff. As such, the minimum lease payments presented above exclude any lease payments for our German subsidiary beyond March 2016.

In accordance with the assumptions used in our employee future benefits obligation calculation as at December 31, 2014, undiscounted benefits expected to be paid are as follows:

|                   |        |
|-------------------|--------|
| (in thousands)    | \$     |
| Less than 1 year  | 495    |
| 1 – 3 years       | 1,014  |
| 4 – 5 years       | 1,084  |
| More than 5 years | 19,867 |
| Total             | 22,460 |

## Outstanding Share Data

As at March 16, 2015, we had 90,557,142 common shares issued and outstanding, as well as 3,885,200 stock options outstanding. Warrants outstanding as at March 16, 2015 represented a total of 116,887,987 equivalent common shares.

## Capital Disclosures

Our objective in managing capital, consisting of shareholders' equity, with cash and cash equivalents and restricted cash equivalents being its primary components, is to ensure sufficient liquidity to fund R&D activities, selling, general and administrative expenses, working capital and capital expenditures.

Over the past several years, we have increasingly raised capital via public equity offerings and drawdowns under various ATM sales programs as our primary source of liquidity.

Our capital management objective remains the same as that in previous periods. The policy on dividends is to retain cash to keep funds available to finance the activities required to advance our product development portfolio and to pursue appropriate commercial opportunities as they may arise.

We are not subject to any capital requirements imposed by any regulators or by any other external source.

## Liquidity, Cash Flows and Capital Resources

Our operations and capital expenditures have been financed through certain transactions impacting our cash flows from operating activities, public equity offerings, as well as from the drawdowns under various ATM programs.

Based on our assessment, which took into account current cash levels, as well as our strategic plan and corresponding budgets and forecasts, we believe that we have sufficient liquidity and financial resources to fund planned expenditures and other working capital needs for at least, but not limited to, the 12-month period following the statement of financial position date of December 31, 2014.

We may endeavour to secure additional financing, as required, through strategic alliance arrangements or through other activities, as well as via the issuance of new share capital or other securities.

The variations in our cash and cash equivalents by activity are explained below.

| (in thousands)   | Three-month periods<br>ended December 31, |          | Years ended December 31, |           |           |
|--|---|----------|--------------------------|-----------|-----------|
|  | 2014                                      | 2013     | 2014                     | 2013      | 2012      |
|  | \$  | \$       | \$                       | \$        | \$        |
| Cash and cash equivalents - Beginning of period                              | 41,952                                    | 24,829   | 43,202                   | 39,521    | 46,881    |
| Cash flows from operating activities:  |   |          |                          |           |           |
| Cash used in operating activities from continuing operations                 | (8,676 )                                  | (6,184 ) | (30,787 )                | (30,131 ) | (25,681 ) |
| Cash provided by (used in) operating activities from discontinued operations | 93  | 9,622    | (295 )                   | 10,147    | (5,134 )  |
|  | (8,583 )                                  | 3,438    | (31,082 )                | (19,984 ) | (30,815 ) |
| Cash flows from financing activities:  |   |          |                          |           |           |
| Net proceeds from issuance of common shares and warrants                     | 2,075                                     | 14,795   | 24,358                   | 23,708    | 23,619    |
| Net proceeds from the exercise of share purchase warrants and other          | —   | —        | —                        | —         | 589       |
|  | 2,075                                     | 14,795   | 24,358                   | 23,708    | 24,208    |
| Cash flows from investing activities:  |   |          |                          |           |           |
| Net cash used in provided by investing activities from continuing operations | (4 )                                      | (21 )    | (61 )                    | (85 )     | (272 )    |
| Net cash provided by investing activities from discontinued operations       | —   | 113      | —                        | 113       | —         |
|  | (4 )                                      | 92       | (61 )                    | 28        | (272 )    |
| Effect of exchange rate changes on cash and cash equivalents                 | (509 )                                    | 48       | (1,486 )                 | (71 )     | (481 )    |
| Cash and cash equivalents - End of period                                    | 34,931                                    | 43,202   | 34,931                   | 43,202    | 39,521    |

#### Operating Activities

2014 compared to 2013

Cash flows (used in) provided by operating activities were \$(8.6) million and \$(31.1) million for the three-month period and the year ended December 31, 2014, respectively, compared to \$3.4 million and \$(20.0) million for the same periods in 2013. The significant increase in cash flows used in operating activities for the three-month period ended December 31, 2014 as compared to the same period in 2013 is due to severance payments made in connection with the Resource Optimization Program, the comparative increase in R&D expenditures, mainly related to our ZoptEC trial and in SG&A expenditures, mainly related to the deployment of our contract sales force and other commercial activities. Additionally, the overall increase in cash used in operating activities was due to variations associated with our discontinued operations, following the transfer of the Cetrotide® Business in the fourth quarter of 2013, as discussed above. This increase is partly offset by the receipt of the Transfer Fee in connection with the agreements entered into with Sinopharm, as discussed above.

The significant increase in cash used in operating activities for the year ended December 31, 2014 as compared to the same period in 2013 is mainly due to the variations associated with our discontinued operations, following the transfer of the Cetrotide® Business in the fourth quarter of 2013, as discussed above.

We expect net cash used in operating activities to range from \$33 million to \$35 million for the year ended December 31, 2015, mainly as we continue to invest in our ZoptEC Phase 3 program and related substudies, as we carry out initiatives related to the co-promotion of EstroGel® and as we continue making severance payments in connection with the Resource Optimization Program. This guidance may vary significantly in future periods, most notably in light of ongoing business development initiatives, as discussed further below.

2013 compared to 2012

Cash flows used in operating activities were \$20.0 million and \$30.8 million for the years ended December 31, 2013 and 2012, respectively. The significant decrease in cash flows used in operating activities is mainly due to the cash provided by operating activities from discontinued operations as a result of the change in operating assets and liabilities and to the receipt in 2013, of the non-refundable, one-time payment from Merck Serono pursuant to the transfer of the Cetrotide® Business, as discussed above. This decrease is partly offset by the increase in cash used in operating activities from continuing operations, which is explained by the comparable increase in R&D and SG&A expenditures, mainly related to the zoptarelin doxorubicin and Macrilen™ projects, as well as by lower cash flows provided by license fee revenues.

Financing Activities

2014 compared to 2013

Cash flows provided by financing activities were \$2.1 million and \$24.4 million for the three-month period and the year ended December 31, 2014, respectively, compared to \$14.8 million and \$23.7 million for the same periods in 2013. The decrease for the three-month period ended December 31, 2014, as compared to the same period in 2013 is due to lower net proceeds received from the issuance of common shares and warrants.

Critical Accounting Policies, Estimates and Judgments

Our consolidated financial statements as at December 31, 2014 and December 31, 2013 and for the years ended December 31, 2014, 2013 and 2012 have been prepared in accordance with IFRS as issued by the IASB.

The preparation of consolidated financial statements in accordance with IFRS requires management to make judgments, estimates and assumptions that affect the reported amounts of our assets, liabilities, revenues, expenses and related disclosures. Judgments, estimates and assumptions are based on historical experience, expectations, current trends and other factors that management believes to be relevant at the time at which our consolidated financial statements are prepared.

Management reviews, on a regular basis, the Company's accounting policies, assumptions, estimates and judgments in order to ensure that the consolidated financial statements are presented fairly and in accordance with IFRS. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

A summary of those critical accounting estimates and assumptions, as well as critical judgments used in applying accounting policies in the preparation of our consolidated financial statements, can be found in note 3 to our consolidated financial statements as at December 31, 2014 and December 31, 2013 and for the years ended December 31, 2014, 2013 and 2012.

Recent Accounting Pronouncements

Adopted in 2014

The following new standards and amendments to standards are effective for the first time for interim periods beginning on or after January 1, 2014 and have been applied in preparing our consolidated financial statements. The accounting policies have been applied consistently by all subsidiaries of the Company.

In May 2013, the IASB made amendments to the disclosure requirements of IAS 36, Impairment of Assets, requiring disclosure, in certain instances, of the recoverable amount of an asset or cash-generating unit, and the basis for the determination of fair value less costs of disposal, when an impairment loss is recognized or when an impairment loss is subsequently reversed.

In May 2013, the IFRS Interpretations Committee ("IFRIC") issued International Financial Reporting Standard Interpretation 21, Levies ("IFRIC 21"), an interpretation on the accounting for levies imposed by governments. IFRIC 21 is an interpretation of IAS 37, Provisions, Contingent Liabilities and Contingent Assets ("IAS 37"). IAS 37 sets out criteria for the recognition of a liability, one of which is the requirement for the entity to have a present obligation as a

result of a past event (known as an obligating event). IFRIC 21 clarifies that the obligating event that gives rise to a liability to pay a levy is the activity described in the relevant legislation that triggers the payment of the levy.

The adoption of these standards and amendments did not have a significant impact on our consolidated financial statements.

Not yet adopted

The final version of IFRS 9, Financial instruments ("IFRS 9"), was issued by the IASB in July 2014 and will replace IAS 39 Financial Instruments: Recognition and Measurement. IFRS 9 introduces a model for classification and measurement, a single, forward-looking expected loss impairment model and a substantially reformed approach to hedge accounting. The new single, principle-based approach for determining the classification of financial assets is driven by cash flow characteristics and the business model in which an asset is held. The new model also results in a single impairment model being applied to all financial instruments, which will require more timely recognition of expected credit losses. It also includes changes in respect of an entity's own credit risk in measuring liabilities elected to be measured at fair value, so that gains caused by the deterioration of an entity's own credit risk on such liabilities are no longer recognized in profit or loss. IFRS 9, which is to be applied retrospectively, is effective for annual periods beginning on or after January 1, 2018 and is available for early adoption. In addition, an entity's own credit risk changes can be applied early in isolation without otherwise changing the accounting for financial instruments. We are currently assessing the impact, if any, that this new standard will have on our consolidated financial statements. In May 2014, the IASB issued IFRS 15, Revenue from Contracts with Customers. The objective of this new standard is to provide a single, comprehensive revenue recognition framework for all contracts with customers to improve comparability of financial statements of companies globally. This new standard contains principles that an entity will apply to determine the measurement of revenue and timing of when it is recognized. The underlying principle is that an entity will recognize revenue to depict the transfer of goods or services to customers at an amount that the entity expects to be entitled to receive in exchange for those goods or services. This new standard is effective for annual periods beginning on or after January 1, 2017. We are currently assessing the impact that this new standard may have on our consolidated financial statements.

Outlook for 2015

Commercial Development

With our focus to become a growth-oriented, commercially operating specialty biopharmaceutical organization, and in addition to our commitment to developing key product candidates in our existing pipeline, we expect to continue to evaluate potential in-licensing and/or acquisition opportunities, as well as additional co-promotional arrangements related to targeted commercial products.

Zoptarelin doxorubicin

With regard to our ZoptEC Phase 3 study in collaboration with Ergomed, we will continue to monitor patient enrollment in North America, Europe and Israel, such that we are able to secure a first interim analysis during the first half of 2015. We also expect to complete patient recruitment for this trial before year-end 2015.

Macrilen™

We intend to make a decision regarding the future development of Macrilen™ in the near term, taking into account various considerations, including our prior and upcoming discussions with the FDA.

Erk Inhibitors Development Program

For this program, we expect to select an optimized molecule for development in the first half of 2015.

Summary of key expectations for revenues, operating expenditures and cash flows

Having entered into the Co-promotion Agreement with ASCEND, we expect to generate sales commission revenue in 2015 pursuant to the initiation of sales coverage in the agreed-upon territories and as we begin to exceed certain minimum agreed-upon thresholds. Further, having entered into the master collaboration agreement, TTA and LA with Sinopharm, we will commence recognition of the amortization of deferred revenues related to the Transfer Fee. For the year ended December 31, 2015, we expect that R&D costs will range between \$21 million and \$23 million. Our R&D costs are expected to decrease in 2015, as compared to 2014, mainly as a result of the implementation of our Resource Optimization Program, as discussed above.

Our main focus for R&D efforts will continue to be on our later-stage compound, zoptarelin doxorubicin and its Phase 3 ZoptEC study, as discussed above, where we anticipate substantial investment to fund ongoing development initiatives.



Excluding the impact of foreign exchange rate fluctuations, our SG&A expenses are expected to remain consistent in 2015, as compared to 2014.

Excluding any foreign exchange impacts, as well as income from new business development initiatives, we expect that our overall operating burn in 2015 will range from \$33 million to \$35 million as we continue to fund operating activities and working capital requirements.

#### Financial Risk Factors and Other Instruments

##### Fair value risk

As noted above, the change in our warrant liability, which is measured at fair value through profit or loss, results from the periodic "mark-to-market" revaluation, via the application of the Black-Scholes option pricing model, of currently outstanding share purchase warrants. The Black-Scholes valuation is impacted, among other inputs, by the market price of our common shares. As a result, the change in fair value of the warrant liability, which is reported as finance income (cost) in our consolidated statements of comprehensive income (loss), has been and may continue in future periods to be materially affected by changes in our common share closing price, which has ranged from \$0.52 to \$1.50 on the NASDAQ during the year ended December 31, 2014.

If variations in the market price of our common shares of -10% and +10% were to occur, the impact on our net loss for the warrant liability held at December 31, 2014 would be as follows:

| (in thousands)                                   | Carrying amount | -10%  | +10%   |   |
|--|-----------------|-------|--------|---|
|  | \$              | \$    | \$     |   |
| Warrant liability                                | 8,225           | 1,117 | (1,147 | ) |
| Total impact on net loss – decrease / (increase) |                 | 1,117 | (1,147 | ) |

##### Foreign currency risk

Since we operate internationally, we are exposed to currency risks as a result of potential exchange rate fluctuations related to non-intragroup transactions. In particular, fluctuations in the US dollar exchange rates against the EUR could have a significant impact on our results of operations.

If foreign exchange rate variations of -5% (depreciation of the EUR) and +5% (appreciation of the EUR) against the US\$, from period-end rates of EUR1 = US\$1.2101 were to occur, the impact on our net loss for each category of financial instruments held at December 31, 2014 would be as follows:

| (in thousands)                                   | Carrying amount | Balances denominated in US\$ |        |   |
|--|-----------------|------------------------------|--------|---|
|  |                 | -5%                          | +5%    |   |
|  | \$              | \$                           | \$     |   |
| Cash and cash equivalents                        | 25,184          | 1,259                        | (1,259 | ) |
| Warrant liability                                | 8,225           | (411                         | ) 411  |   |
| Total impact on net loss – decrease / (increase) |                 | 848                          | (848   | ) |

##### Liquidity risk

Liquidity risk is the risk that we will not be able to meet our financial obligations as they become due. We manage this risk through the management of our capital structure and by continuously monitoring actual and projected cash flows. Our Board of Directors reviews and approves our operating and capital budgets, as well as any material transactions out of the ordinary course of business. We have adopted an investment policy in respect of the safety and preservation of our capital to ensure our liquidity needs are met. The instruments are selected with regard to the expected timing of expenditures and prevailing interest rates.

We believe that we have sufficient funds to pay our ongoing general and administrative expenses, to pursue our R&D activities and to meet our obligations and existing commitments as they fall due at least through December 31, 2015. In making this assessment, we took into account all available information about the future, which is at least, but not limited to, twelve months from the end of the most recent reporting period. We expect to continue to incur operating losses and may require significant capital to fulfill our future obligations. Our ability to continue future operations beyond December 31, 2015 and to fund our activities is dependent on our ability to secure additional funding, which may be completed in a number of ways, including but not limited to licensing arrangements, partnerships, share and other security issuances and other financing activities. We will pursue such additional sources of financing when required, and while we have been successful in securing financing in the past, there can be no assurance we will be able to do so in the future or that these sources of funding or initiatives will be available for the Company or that they will be available on terms which are acceptable to us.

#### Credit risk

Credit risk is the risk of an unexpected loss if a customer or counterparty to a financial instrument fails to meet its contractual obligations. We regularly monitor credit risk exposure and take steps to mitigate the likelihood of this exposure resulting in losses. Our exposure to credit risk currently relates to cash and cash equivalents, to trade and other receivables and to restricted cash equivalents. We invest our available cash in amounts that are readily convertible to known amounts of cash and deposit our cash balances with financial institutions that are rated the equivalent of "Baa1" and above. This information is supplied by independent rating agencies where available and, if not available, we use publicly available financial information to ensure that we invest our cash in creditworthy and reputable financial institutions.

As at December 31, 2014, trade accounts receivable for an amount of approximately \$0.3 million were with three counterparties.

As at December 31, 2014, no trade accounts receivable were past due or impaired.

Generally, we do not require collateral or other security from customers for trade accounts receivable; however, credit is extended following an evaluation of creditworthiness. In addition, we perform ongoing credit reviews of all our customers and establish an allowance for doubtful accounts when accounts are determined to be uncollectible.

The maximum exposure to credit risk approximates the amount recognized on our condensed interim consolidated statement of financial position.

#### Related Party Transactions and Off-Balance Sheet Arrangements

In addition to recurring payments made to members of our key management team, during the years ended December 31, 2014 and 2013, we incurred \$38,000 and \$76,800, respectively, in professional fees for services rendered by one of the members of the Company's Board of Directors in connection with special tasks mandated by our Nominating, Corporate Governance and Compensation Committee.

As at December 31, 2014, we did not have any interests in special purpose entities or any other off-balance sheet arrangements.

Item 6. Directors, Senior Management and Employees

A. Directors and senior management

The following table sets forth information about our directors and corporate officers as at March 17, 2015.

| Name and Place of Residence                          | Position with Aeterna Zentaris  |
|--|---|
| Aubut, Marcel<br>Quebec, Canada                      | Director  |
| Dodd, David A.<br>South Carolina, United States      | Chairman, President and Chief Executive Officer                         |
| Dinges, Jude<br>Georgia, United States               | Senior Vice President and Chief Commercial Officer                      |
| Dorais, José P.<br>Quebec, Canada                    | Director  |
| Egbert, Carolyn<br>Texas, United States              | Director  |
| Ernst, Juergen<br>Brussels, Belgium                  | Lead Independent Director   |
| Guenther, Eckhard<br>Frankfurt, Germany              | Vice President, Business Development                                    |
| Lapalme, Pierre<br>Quebec, Canada                    | Director  |
| Limoges, Gérard<br>Quebec, Canada                    | Director  |
| Sachse, Richard<br>Mittelbiberach, Germany           | Senior Vice President, Chief Scientific Officer/Chief Medical Officer   |
| Santorelli, Keith<br>Boston, Massachusetts           | Vice President, Finance   |
| Teifel, Michael<br>Frankfurt, Germany                | Vice President, Pre-Clinical Development                                |
| Theodore, Philip A.<br>South Carolina, United States | Senior Vice President, Chief Administrative Officer and General Counsel |
| Turpin, Dennis<br>Quebec, Canada                     | Senior Vice President and Chief Financial Officer                       |

There are no family relationships among any of our directors or executive officers. The following is a brief biography of each of our directors and executive officers.

Marcel Aubut has served as a director on our Board since 1996. Mr. Aubut is a partner and Vice-Chairman of the Board of BCF LLP, a law firm. The countless companies and boards with which Marcel Aubut has been involved over the years demonstrate his versatility and, above all, his vast experience in the world of business. These include, among others, Atomic Energy of Canada, Olymel L.P. (Olybro), Boralex Power Income Fund, Triton Electronik, Whole Foods Market Canada, Hydro-Québec (Executive Committee), Purolator Courier Ltd., Tremblant Resort, Cinar Inc., La Laurentienne générale, La Laurentienne vie, Investors Group Inc., Transforce Inc., Intra Continental Insurers Ltd., the National Hockey League Pension Society, Boréal Entreprises Premier CDN Ltée, Les Industries Amisco Ltée, Donohue Matane Inc., La Société de développement du Loisir et du Sport du Québec, the Canadian Olympic Committee, the Canadian Olympic Foundation, member of VANOC's Audit Committee, Governance and Ethics Committee and Observer Team, Sodic Québec Inc., Innovatech Québec, Textile Dionne, Canada's Sports Hall of Fame, the Committee for the 2002 Quebec City Olympic Games Bid, the Committee for the 2015 Toronto Pan American Games Bid, la Fondation Nordiques, etc. He has also presided over the establishment of numerous industrial projects in the greater region of Quebec City.

Jude Dinges was appointed our Senior Vice President and Chief Commercial Officer in November 2013. He began his career nearly 30 years ago as a professional sales representative at Bristol Laboratories and later at Merck & Co., where he was promoted to positions with increased responsibilities in training, sales, management, marketing, and market development. While at Merck, Mr. Dinges won multiple awards, including the President's Achievement Award in 2001, awarded to one of 32 Business Directors each year. He received the Change Agent Award for his market development prelaunch business planning and contributions to sales force execution, while launching the blockbuster brands Cozaar<sup>®</sup>, Fosamax<sup>®</sup>, Singulair<sup>®</sup>, Maxalt<sup>®</sup>, Vioxx<sup>®</sup>, and Vytorin<sup>®</sup>. He was recognized with a Career Achievement Award for his consistent top performance as a Senior/Executive Business Director. Mr. Dinges joined Novartis Pharmaceuticals in 2006 and led his region to top performance in the launch of Tekturna<sup>®</sup> while balancing a broad antihypertensive portfolio across several Novartis divisions. His region also led the nation in market share for Exelon<sup>®</sup> and Exelon Patch<sup>®</sup>. In 2008, Mr. Dinges became the Respiratory & Infectious Disease Specialty Medicines Director. In 2009, Mr. Dinges joined Amgen Inc. as Executive Director of Region Sales, Bone Health Business Unit. Mr. Dinges led his region team to a highly successful launch of monoclonal antibody, Prolia<sup>®</sup>, across southeastern United States and Puerto Rico.

David A. Dodd was appointed our President and CEO in April 2013 and was elected as Chairman of the Board in May 2014. Mr. Dodd's executive management experience in the pharmaceutical and biotechnology industries spans more than 35 years. Prior to joining Aeterna Zentaris, Mr. Dodd was President and CEO of Solvay Pharmaceuticals, Inc. During his six-year tenure as President, CEO and Director of Serologicals Corporation, the market value of the company increased from \$85 million in June 2000 to an all-cash sale to Millipore Corporation in July 2006 for \$1.5 billion. He also was President, CEO and Chairman of BioReliance Corporation, a leading provider of biological safety and related testing services. Prior to that, Mr. Dodd held various senior management positions at Wyeth-Ayerst Laboratories, the Mead Johnson Laboratories Division at Bristol-Myers Squibb, and Abbott Laboratories. Mr. Dodd holds a Master degree from Georgia State University, and completed the Harvard Business School Advanced Management Program.

José P. Dorais has served as a director on our Board since 2006. Mr. Dorais is a partner of Miller Thomson LLP, a law firm, where he mainly practices administrative, corporate, business and international trade law. Over his 35-year career, he has worked in both the private and public sectors; in the latter he acted as Secretary to the Minister of Justice and as Secretary of the consulting committee on the Free Trade Agreement for the Quebec Provincial Government. Mr. Dorais has been a member of numerous boards of directors, including the Société des Alcools du Québec, Armand-Frappier Institute, Biochem Pharma and St-Luc Hospital in Montreal. He was, until recently, a member of the Board of Directors of Alliance Films Inc. and Investissement Québec and Chairman of the Board of Foster Wheeler Énergie Inc. He holds a law degree from the University of Ottawa and is a member of the Barreau du Québec.

Carolyn Egbert has served as a director on our Board since August 2012. After enjoying the private practice of law as a defense litigator in Michigan and Washington, D.C., she joined Solvay America, Inc. ("Solvay") (a chemical and pharmaceutical company) in Houston, Texas. Over the course of a twenty-year career with Solvay, she held the positions of Vice President, Human Resources, President of Solvay Management Services, Global Head of Human Resources and Senior Executive Vice President of Global Ethics and Compliance. During her tenure with Solvay, she served as a director on the Board of Directors of seven subsidiary companies. After retiring in 2010, she established a consulting business providing expertise in corporate governance, ethics and compliance, organizational development and strategic human resources. She holds a Bachelor of Sciences degree in Biological Sciences from George Washington University, Washington D.C. and a Juris Doctor degree from Seattle University, Seattle, Washington. She also was a Ph.D. candidate in Pharmacology at both Georgetown University Medical School at Washington, D.C. and Northwestern University Medical School at Chicago, Illinois. She remains an active member of both the Michigan State Bar and the District of Columbia Bar, Washington, D.C.

Juergen Ernst has served as a director on our Board since 2005. As the former General Manager of the Pharmaceutical Sector of Solvay S.A. (international chemical and pharmaceutical group), Mr. Ernst has had extensive senior management experience, where, among other functions, he oversaw the human resources department. Mr. Ernst is also a member of the Board of Directors of Pharming Group N.V., a biotechnology company based in the Netherlands.

Eckhard Günther was appointed as our Vice President, Business Development in October 2014. He serves as one of our executive officers. From 2008 through 2014, he was our Vice President, Alliance Management and Intellectual Property and from 2006 through 2008, he was our Vice President, Head of Drug Discovery and Preclinical Development. Dr. Günther, who is based in the Frankfurt, Germany, office of our German subsidiary, began his career in the pharmaceutical industry in 1985. He joined ASTA Medica AG, a predecessor of our Company, in 1990, assuming roles of increasing responsibility in areas of medicinal chemistry and drug discovery during his career. He possesses numerous scientific and business skills and has a long record of successful innovation and alliance building and management. Dr. Günther obtained a diploma in Chemistry from the Martin-Luther-University of Halle-Wittenberg in 1979 and was awarded his doctorate diploma in synthetic organic chemistry by the University of Halle-Wittenberg in 1985.

Pierre Lapalme has served as a director on our Board since December 2009. Mr. Lapalme has, over the course of his career, held numerous senior management positions in various global life sciences companies. He is former Senior Vice President, Sales and Marketing for Ciba-Geigy (which subsequently became Novartis) and former Chief Executive Officer and Chairman of the Board of Rhone-Poulenc Pharmaceuticals Inc. in Canada and in North America, as well as Executive Vice President and Chief Executive Officer of Rhone-Poulenc-Rorer Inc. North America (now sanofi-aventis), where he supervised the development, manufacturing and sales of prescription products in North and Central America. Mr. Lapalme served on the Board of Directors of the National Pharmaceutical Council USA and was a member of the Board of Directors of the Pharmaceutical Manufacturers Association of Canada, where he played a leading role in reinstating patent protection for pharmaceuticals. Until recently, he was a member of the Board and Chairman of the Board of Sciele Pharma Inc., which was acquired by Shionogi and Co. Ltd. Mr. Lapalme is currently Chairman of the Board of Biomarin Pharmaceutical Inc., Chairman of the Board of Pediapharm Inc., Chairman of the Board of GlyPharma Therapeutics and a member of the Board of Directors of Algorithm Pharma Inc. and of Insy's Therapeutics Inc., a Phoenix-Arizona based specialty pharma company. He studied at the University of Western Ontario and at INSEAD, France.

G rard Limoges, has served as a director on our Board since 2004. Mr. Limoges served as the Deputy Chairman of Ernst & Young LLP Canada until his retirement in September 1999. After a career of 37 years with Ernst & Young, Mr. Limoges has been devoting his time as a director of a number of companies. Mr. Limoges began his career with Ernst & Young in Montreal in 1962. After graduating from the Management Faculty of the Universit  de Montr al (HEC Montr al) in 1966, he wrote the CICA exams the same year (Honors: Governor General's Gold Medal for the highest marks in Canada and Gold Medal of the Ordre des Comptables Agr e s du Qu bec). He became a chartered accountant in 1967 and partner of Ernst & Young in 1971. After practicing as auditor since 1962 and partner since 1971, he was appointed Managing Partner of the Montreal Office in 1979 and Chairman for Quebec in 1984 when he also joined the National Executive Committee. In 1992, he was appointed Vice Chairman of Ernst & Young Canada and the following year, Deputy Chairman of the Canadian firm. After retirement from practice at the end of September 1999, he was appointed Trustee of the School board of Greater Montreal (1999), member of the Quebec Commission on Health Care and Social Services (2000-2001) and special advisor to the Rector of the Universit  de Montr al and affiliate schools (2000-2003). Mr. Limoges, at the request of the Board of Directors of the Universit  de Montr al, participated in the selection of the Dean of the Faculty of Medicine in 2011. Mr. Limoges is also a board member or trustee and chairman of the Audit Committees of the following public companies: Hartco Inc. (TSX) and PROREIT (TSX). He is also a board member of various private companies and charities. Mr. Limoges became an FCPA, FCA (Fellow) in 1984 and received the Order of Canada in 2002.

Richard Sachse was appointed our Senior Vice President and Chief Scientific Officer in January 2014. In March 2014, he was also appointed Chief Medical Officer. Dr. Sachse holds a degree in medicine from the Friedrich-Alexander-University Erlangen, in Germany, and a board certification in Clinical Pharmacology. With more than 20 years experience as a physician and scientist, he has extensive expertise in a variety of different therapeutic areas, including endocrinology and oncology. In addition to registration studies, he is especially experienced in the design and implementation of translational programs to bridge research programs to the clinic, as well as in the design and implementation of clinical pharmacology programs, including all required profiling studies and activities, enabling successful registration of products at the international level. From 1996 to 2000, he was International Project Leader at the Bayer AG Institute for Clinical Pharmacology, and Principal Investigator at the Bayer Clinical Pharmacology Unit, implementing innovative exploratory development tools, including biomarkers to demonstrate early Proof of Concept. From 2001 to 2006, Dr. Sachse held a variety of different management positions within early and late phase clinical development programs, including responsibilities for completed Phase 3 programs leading to successful NDA/MAA submissions. In 2007, after a merger, he became Senior Director, Head of Experimental Medicine, at UCB in Belgium, where he managed the implementation of novel biomarkers in clinical development to provide data supporting identification of appropriate target indication and target population. In 2010, Dr. Sachse became Vice President, Head of Global Translational Medicine at Boehringer Ingelheim.

Keith Santorelli was appointed our Vice President, Finance in November 2013. Mr. Santorelli, who is based in Boston, Massachusetts and is an employee of our U.S. subsidiary, had previously been employed at the Registrant's

Quebec City headquarters from December 2008 until November 2011. Mr. Santorelli re-joins us from Alderon Iron Ore Corp., a development-stage mining company in Montreal, Canada, where he was Chief Financial Officer from November 2011 until June 2013. Mr. Santorelli is a Certified Public Accountant, licensed in the State of Massachusetts, and holds a Bachelor's degree in Accountancy from the University of Massachusetts, as well as an M.A. from McGill University.

Michael Teifel became our Vice President, Non-Clinical Sciences in October 2014. He joined our German subsidiary, which is based in Frankfurt, in 2004, where he has been involved in a number of roles focused on the design and implementation of non-clinical development programs for small molecule drugs, targeted therapies and biologics. He serves as one of our executive officers. Prior to joining us, Dr. Teifel co-founded Munich Biotech AG, which developed anti-tumor diagnostics and therapeutics, from 1998 through August 2004. Prior to founding Munich Biotech AG, Dr. Teifel was employed by Boehringer

Mannheim GmbH/Roche Diagnostics GmbH where his focus was on gene therapy. He received his diploma in biology from the Technical University Darmstadt in 1992 and his doctorate from the same institution in 1996. Philip Theodore was appointed our Senior Vice President, Chief Administrative Officer and General Counsel in October 2014. Prior to joining us, he was the Vice President, General Counsel and Corporate Secretary of Zep Inc., a consumable chemical packaged goods company based in Atlanta, Georgia, from July 2010 through September 2014; the Vice President of Corporate Development, Compliance, and Legal for BioReliance, Inc., a provider of biologics-safety-testing services based in Rockville, Maryland, from September 2008 to April 2009; the Senior Vice President and General Counsel of John H. Harland Company, a financial services company based in Atlanta, Georgia, from September 2006 to September 2007; and the Vice President, General Counsel and Corporate Secretary of Serologicals Corporation, a life-sciences tools company based in Atlanta, Georgia, from 2004 through August 2006. Mr. Theodore also served as a partner in the corporate practice of King & Spalding, LLP, an Atlanta-based law firm, from 1986 through 2003.

Dennis Turpin was appointed our Senior Vice President and Chief Financial Officer in August 2007. Prior to that, he served as our Vice President and Chief Financial Officer since June 1999. Mr. Turpin joined Aeterna Zentaris in August 1996 as Director of Finance. Prior to that, he was Director in the tax department at Coopers Lybrand, now PricewaterhouseCoopers, from 1988 to 1996 and worked as an auditor from 1985 to 1988. Mr. Turpin earned his Bachelor's degree in Accounting from Laval University in Québec. He obtained his license in accounting in 1985 and became a chartered accountant in 1987.

#### B. Compensation

Our executive officers are generally paid in their home country's currency. Unless otherwise indicated, all directors' and executive compensation information included in this document is presented in US dollars and, to the extent a director or officer has been paid in a currency other than US dollars (i.e. Canadian dollars or euros), the amounts have been converted from such person's home country currency to US dollars based on the following average exchange rates: for the financial year ended December 31, 2014: €1.000 = US\$1.329 and CAN\$1.000 = US\$0.905; for the financial year ended December 31, 2013: €1.000 = US\$1.329 and CAN\$1.000 = US\$0.971; and for the financial year ended December 31, 2012: €1.000 = US\$1.286 and CAN\$1.000 = US\$1.001.

#### 1. Compensation of Outside Directors

The compensation paid to members of our Board of Directors who are not our employees (our "Outside Directors") is designed to (i) attract and retain the most qualified people to serve on the Board and its committees, (ii) align the interests of the Outside Directors with those of our shareholders, and (iii) provide appropriate compensation for the risks and responsibilities related to being an effective Outside Director. This compensation is recommended to the Board by the Nominating, Governance and Compensation Committee ("Governance Committee"). The Governance Committee is composed of three Outside Directors, each of whom is independent, namely Ms. Carolyn Egbert (Chair), Mr. Juergen Ernst and Mr. José P. Dorais.

The Board has adopted a formal mandate for the Governance Committee, which is available on our website at [www.aezsinc.com](http://www.aezsinc.com). The mandate of the Governance Committee provides that it is responsible for, among other matters, assisting the Board in developing our approach to corporate governance issues, proposing new Board nominees, overseeing the assessment of the effectiveness of the Board and its committees, their respective chairs and individual directors and (iv) making recommendations to the Board with respect to directors' compensation and generally playing a leadership role in our corporate governance practices.

In 2013, the Governance Committee retained James F. Reda and Associates ("Reda"), a division of Gallagher Benefit Services, Inc., as a compensation consultant. Reda was retained to assist the Governance Committee with (i) a review of our compensation programs, particularly our executive short-term and long-term incentive programs and (ii) a review and benchmarking of the remuneration of our Outside Directors. Reda analyzed our past practices and defined a peer group of companies in order to understand the competitive compensation practices and to propose a program designed to deliver both cash and equity compensation components to our Outside Directors and executive officers that was competitive with the peer group of companies. Our existing Outside Director compensation structure was benchmarked against market compensation data gathered from North American biopharmaceutical companies of comparable size. See the section below titled "Compensation Consultant" and "Benchmarking" for more information.

Based on the results of the benchmarking study and in light of the substantial responsibilities inherent to the position of director, Reda proposed that we increase Outside Director compensation, including both cash and equity components. Upon recommendation of the Governance Committee, the Board determined in 2013 not to implement any increase to the remuneration payable to Outside Directors and deferred further consideration of various elements of Outside Directors' compensation to a later point in time in 2014. During 2014, Mr. David A. Dodd, our President and Chief Executive Officer, was

appointed Chairman of our Board of Directors. Following his appointment, our Board established the position of "Lead Independent Director" or Lead Director and fixed the compensation of the Lead Director at 40,000, payable in the Lead Director's home country currency.

Annual Retainers and Attendance Fees

Annual retainers and attendance fees are paid on a quarterly basis to our Outside Directors on the following basis:

| Type of Compensation                         | Annual Compensation for the year 2014<br>(in units of home country currency) |
|--|--|
| Lead Director Retainer                       | 40,000   |
| Board Member Retainer                        | 15,000   |
| Board Meeting Attendance Fees                | 1,000 per meeting  |
| Audit Committee Chair Retainer               | 15,000   |
| Audit Committee Member Retainer              | 4,000  |
| Audit Committee Meeting Attendance Fees      | 1,000 per meeting  |
| Governance Committee Chair Retainer          | 12,000   |
| Governance Committee Member Retainer         | 2,000  |
| Governance Committee Meeting Attendance Fees | 1,000 per meeting  |

All amounts in the above table are paid to Board and committee members in their home country currency.

The Chairman, President and Chief Executive Officer is the only member of the Board who is not an Outside Director and as such is not compensated in his capacity as a director. Outside Directors are reimbursed for travel and other out-of-pocket expenses incurred in attending Board or committee meetings.

## Outstanding Option-Based Awards and Share-Based Awards

The following table shows all awards outstanding to each Outside Director up to the end of the financial year ending and as at December 31, 2014:

| Name            | Option-based Awards |  |                       |                        |  | Share-based Awards |  |   |
|-----------------|---------------------|--|-----------------------|------------------------|--|--------------------|--|---|
|                 | Issuance Date       | Number of Securities Underlying Unexercised Options <sup>(1)</sup> | Option Exercise Price | Option Expiration Date | Value of Unexercised In-the-money Options <sup>(2)</sup> | Issuance Date      | Number of Shares or Units of Shares that have Not Vested | Market or Payout Value of Share-based Awards that have Not Vested |
|                 | (mm-dd-yyyy)        | (#)  | (CAN\$ or US\$)       | (mm-dd-yyyy)           | (CAN\$ or US\$)  | (mm-dd-yyyy)       | (#)  | (\$)  |
| Aubut, Marcel   | 12/13/2005          | 2,500  | CAN\$21.18            | 12/12/2015             | —  | —                  | —  | —   |
|                 | 01/04/2007          | 833  | CAN\$27.90            | 01/03/2017             | —  | —                  | —  | —   |
|                 | 12/11/2007          | 4,166  | CAN\$10.92            | 12/10/2017             | —  | —                  | —  | —   |
|                 | 12/08/2008          | 2,500  | CAN\$3.30             | 12/08/2018             | —  | —                  | —  | —   |
|                 | 12/09/2009          | 3,333  | CAN\$5.70             | 12/08/2019             | —  | —                  | —  | —   |
|                 | 12/08/2010          | 5,000  | CAN\$9.12             | 12/07/2020             | —  | —                  | —  | —   |
|                 | 12/07/2011          | 8,333  | US\$10.44             | 12/06/2021             | —  | —                  | —  | —   |
|                 | 05/09/2012          | 10,000   | US\$3.54              | 05/08/2022             | —  | —                  | —  | —   |
|                 | 05/08/2013          | 5,000  | US\$1.86              | 05/07/2023             | —  | —                  | —  | —   |
|                 | 11/27/2013          | 25,000   | US\$1.12              | 11/26/2023             | —  | —                  | —  | —   |
| 05/09/2014      | 60,000              | US\$1.07   | 05/08/2021            | —                      | —  | —                  | —  |   |
| Dorais, José P. | 12/08/2010          | 5,000  | CAN\$9.12             | 12/07/2020             | —  | —                  | —  | —   |
|                 | 12/07/2011          | 8,333  | US\$10.44             | 12/06/2021             | —  | —                  | —  | —   |
|                 | 05/09/2012          | 10,000   | US\$3.54              | 05/08/2022             | —  | —                  | —  | —   |
|                 | 05/08/2013          | 5,000  | US\$1.86              | 05/07/2023             | —  | —                  | —  | —   |
|                 | 11/27/2013          | 25,000   | US\$1.12              | 11/26/2023             | —  | —                  | —  | —   |
|                 | 05/09/2014          | 60,000   | US\$1.07              | 05/08/2021             | —  | —                  | —  | —   |
| Egbert, Carolyn | 12/06/2012          | 7,500  | US\$2.17              | 12/05/2022             | —  | —                  | —  | —   |
|                 | 05/08/2013          | 5,000  | US\$1.86              | 05/07/2023             | —  | —                  | —  | —   |
|                 | 11/27/2013          | 25,000   | US\$1.12              | 11/26/2023             | —  | —                  | —  | —   |
|                 | 05/09/2014          | 60,000   | US\$1.07              | 05/08/2021             | —  | —                  | —  | —   |
| Ernst, Juergen  | 02/25/2005          | 2,500  | CAN\$30.54            | 02/24/2015             | —  | —                  | —  | —   |
|                 | 12/13/2005          | 2,500  | CAN\$21.18            | 12/12/2015             | —  | —                  | —  | —   |
|                 | 01/04/2007          | 833  | CAN\$27.90            | 01/03/2017             | —  | —                  | —  | —   |
|                 | 12/11/2007          | 4,166  | CAN\$10.92            | 12/10/2017             | —  | —                  | —  | —   |
|                 | 11/14/2008          | 16,666   | CAN\$3.90             | 11/13/2018             | —  | —                  | —  | —   |
|                 | 12/08/2008          | 2,500  | CAN\$3.30             | 12/08/2018             | —  | —                  | —  | —   |
|                 | 12/09/2009          | 3,333  | CAN\$5.70             | 12/08/2019             | —  | —                  | —  | —   |
|                 | 12/08/2010          | 5,000  | CAN\$9.12             | 12/07/2020             | —  | —                  | —  | —   |
|                 | 12/07/2011          | 8,333  | US\$10.44             | 12/06/2021             | —  | —                  | —  | —   |

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|                    |            |        |            |            |   |   |   |   |
|--------------------|------------|--------|------------|------------|---|---|---|---|
|                    | 05/09/2012 | 10,000 | US\$3.54   | 05/08/2022 | — | — | — | — |
|                    | 05/08/2013 | 5,000  | US\$1.86   | 05/07/2023 | — | — | — | — |
|                    | 11/27/2013 | 25,000 | US\$1.12   | 11/26/2023 | — | — | — | — |
|                    | 05/09/2014 | 60,000 | US\$1.07   | 05/08/2021 | — | — | — | — |
| Lapalme,<br>Pierre | 12/09/2009 | 3,333  | CAN\$5.70  | 12/08/2019 | — | — | — | — |
|                    | 12/08/2010 | 5,000  | CAN\$9.12  | 12/07/2020 | — | — | — | — |
|                    | 12/07/2011 | 8,333  | US\$10.44  | 12/06/2021 | — | — | — | — |
|                    | 05/09/2012 | 10,000 | US\$3.54   | 05/08/2022 | — | — | — | — |
|                    | 05/08/2013 | 5,000  | US\$1.86   | 05/07/2023 | — | — | — | — |
|                    | 11/27/2013 | 25,000 | US\$1.12   | 11/26/2023 | — | — | — | — |
|                    | 05/09/2014 | 60,000 | US\$1.07   | 05/08/2021 | — | — | — | — |
| Limoges,<br>Gérard | 12/13/2005 | 2,500  | CAN\$21.18 | 12/12/2015 | — | — | — | — |
|                    | 01/04/2007 | 833    | CAN\$27.90 | 01/03/2017 | — | — | — | — |
|                    | 12/11/2007 | 4,166  | CAN\$10.92 | 12/10/2017 | — | — | — | — |
|                    | 12/08/2008 | 2,500  | CAN\$3.30  | 12/08/2018 | — | — | — | — |
|                    | 12/09/2009 | 3,333  | CAN\$5.70  | 12/08/2019 | — | — | — | — |
|                    | 12/08/2010 | 5,000  | CAN\$9.12  | 12/07/2020 | — | — | — | — |
|                    | 12/07/2011 | 8,333  | US\$10.44  | 12/06/2021 | — | — | — | — |
|                    | 05/09/2012 | 10,000 | US\$3.54   | 05/08/2022 | — | — | — | — |
|                    | 05/08/2013 | 5,000  | US\$1.86   | 05/07/2023 | — | — | — | — |
|                    | 11/27/2013 | 25,000 | US\$1.12   | 11/26/2023 | — | — | — | — |
|                    | 05/09/2014 | 60,000 | US\$1.07   | 05/08/2021 | — | — | — | — |

(1) The number of securities underlying unexercised options represents all awards outstanding as at December 31, 2014.

(2) "Value of unexercised in-the-money options" at financial year-end is calculated based on the difference between the closing prices of the Common Shares on the TSX or the NASDAQ, as applicable, on the last trading day of the fiscal year (December 31, 2014) of CAN\$0.69 and US\$0.60, respectively, and the exercise price of the options, multiplied by the number of unexercised options.

See "Summary of the Stock Option Plan" for more details on the Stock Option Plan (as defined below).

#### Total Compensation of Outside Directors

The table below summarizes the total compensation earned by the Outside Directors during the financial year ended December 31, 2014 (all amounts are in US dollars):

| Name            | Fees earned             |                           | Share-based Awards | Option-based Awards <sup>(2)</sup> | Non-Equity                  |               |                                       | Total   |
|-----------------|-------------------------|---------------------------|--------------------|------------------------------------|-----------------------------|---------------|---------------------------------------|---------|
|                 | (\$)                    |                           |                    |                                    | Incentive Plan Compensation | Pension Value | All Other Compensation <sup>(3)</sup> |         |
|                 | Retainer <sup>(1)</sup> | Attendance <sup>(1)</sup> | (\$)               | (\$)                               | (\$)                        | (\$)          | (\$)                                  | (\$)    |
| Aubut, Marcel   | 13,582                  | 4,539                     | —                  | 51,294                             | —                           | —             | —                                     | 69,415  |
| Dorais, José P. | 22,261                  | 14,877                    | —                  | 51,294                             | —                           | —             | —                                     | 88,432  |
| Egbert, Carolyn | 23,429                  | 12,500                    | —                  | 51,294                             | —                           | —             | 25,250                                | 112,473 |
| Ernst, Juergen  | 63,913                  | 17,445                    | —                  | 51,294                             | —                           | —             | 3,479                                 | 136,131 |
| Lapalme, Pierre | 17,203                  | 6,324                     | —                  | 51,294                             | —                           | —             | —                                     | 74,822  |
| Limoges, Gérard | 27,163                  | 9,922                     | —                  | 51,294                             | —                           | —             | —                                     | 88,379  |

(1) These amounts represent the portion paid in cash to the Outside Directors and are paid in each director's home country currency.

The value of option-based awards represents the closing price of the Common Shares on the NASDAQ on the last trading day preceding the date of grant (US\$1.07 for options granted on May 9, 2014) multiplied by the (2) Black-Scholes factor as at such date (79.90% for options granted on May 9, 2014) and the number of stock options granted on such date.

(3) These amounts represent fees paid in cash for special tasks or overseas travelling and are also paid in each director's home country currency.

During the financial year ended December 31, 2014, we paid an aggregate amount of \$261,887 to all of our Outside Directors for services rendered in their capacity as directors, excluding reimbursement of out-of-pocket expenses and the value of option-based awards granted in 2014.

#### 2. Compensation of Executive Officers

The mandate of the Governance Committee provides that it is responsible for taking all reasonable measures to ensure that appropriate human resources systems and procedures, such as hiring policies, competency profiles, training policies and compensation structures, are in place so that we can attract, motivate and retain the quality of senior management required to meet our business objectives.

The Governance Committee also assists the Board in discharging its responsibilities relating to executive and other human resources hiring, assessment, compensation and succession planning matters.

Thus, the Governance Committee recommends the appointment of senior officers, including the terms and conditions of their appointment and termination, and reviews the evaluation of the performance of such senior officers, including recommending their compensation and overseeing risk identification and management in relation to executive compensation policies and practices. The Board, which includes the members of the Governance Committee, reviews the corporate goals and objectives that are set annually and evaluates the Chief Executive Officer's performance and compensation in light of such goals and objectives.

The Governance Committee recognizes that the industry, regulatory and competitive environment in which we operate requires a balanced level of risk-taking to promote and achieve the performance expectations of executives of a specialty biopharmaceutical company that is also seeking to acquire or in-license new commercial products. The Governance Committee is of the view that our executive compensation program should not encourage senior executives to take excessive risk. In this regard, the Governance Committee recommends the implementation of compensation methods that tie a portion of senior executive compensation to our short-term and longer-term performance, as well as that of each individual executive officer and that take into account the advantages and risks associated with such compensation methods. The Governance Committee is also responsible for creating

compensation policies that are intended to reward the creation of shareholder value while reflecting a balance between our short-term and longer-term performance and that of each executive officer.

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#### Compensation Consultant

The Governance Committee may, from time to time, engage its own independent consultant to advise it with respect to executive compensation matters. During the financial year ended December 31, 2013, the Governance Committee retained Reda to provide advice on the competitiveness and appropriateness of compensation programs for the Chief Executive Officer and our other senior executive officers, as well as with respect to the level and form of compensation payable to Outside Directors.

The fees paid to Reda for compensation consulting services during the financial year ended December 31, 2013 were \$54,134. The Governance Committee did not engage a compensation consultant during the financial year ended December 31, 2014.

While the Governance Committee may rely on external information and advice, all of the decisions with respect to executive compensation are made by the Board upon the recommendation of the Governance Committee and may reflect factors and considerations other than, or that may differ from, the information and recommendations provided by any external compensation consultants that may be retained from time to time.

#### Compensation Discussion & Analysis

##### Compensation Philosophy and Objectives

Our executive compensation program is designed to attract, motivate and retain high-performing senior executives, encourage and reward superior performance and align the executives' interests with those of our shareholders by:

- providing the opportunity for an executive to earn compensation that is competitive with the compensation received by executives employed by a group of comparable North American companies;
- providing the opportunity for executives to participate in an equity-based incentive plan, namely a stock option plan;
- aligning employee compensation with company corporate objectives; and
- attracting and retaining highly qualified individuals in key positions.

##### Risk Assessment of Executive Compensation Program

The Board, through the Governance Committee, oversees the implementation of compensation methods that tie a portion of executive compensation to our short-term and longer-term performance and that of each executive officer and that take into account the advantages and risks associated with such compensation methods. In addition, the Board oversees the creation of compensation policies that are intended to reward the creation of shareholder value while reflecting a balance between our short-term and longer-term performance and that of each executive officer.

The Governance Committee has considered in general terms the concept of risk as it relates to our executive compensation program.

Base salaries are fixed in amount to provide a steady income to the executive officers regardless of share price and thus do not encourage or reward risk-taking to the detriment of other important business, operational, commercial or clinical metrics or milestones. The variable compensation elements (annual bonuses and stock options) are designed to reward each of short-term, mid-term and long-term performance. For short-term performance, a discretionary annual bonus may be awarded based on the timing and level of attainment of specific operational and corporate goals that the Governance Committee believes to be challenging, yet does not encourage unnecessary or excessive risk-taking.

While our bonus payments are generally based on annual performance, a maximum bonus payment is pre-fixed for each senior executive officer and represents only a portion of each individual's overall total compensation opportunities. In exceptional circumstances, a particular executive officer may be awarded a bonus that exceeds his or her maximum pre-fixed or target bonus amount. Finally, a significant portion of executive compensation is provided in the form of stock options, which is intended to further align the interests of executives with those of shareholders. The Governance Committee believes that these awards do not encourage unnecessary or excessive risk-taking since the ultimate value of the awards is tied to our share price, and in the case of grants under the long-term incentive compensation plan, are generally subject to mid-term and long-term vesting schedules to help ensure that executives generally have significant value tied to long-term share price performance.

The Governance Committee believes that the variable compensation elements (annual bonuses and stock options) represent a percentage of overall compensation that is sufficient to motivate our executive officers to produce superior short-term, mid-term and long-term corporate results, while the fixed compensation element (base salary) is also sufficient to discourage executive officers from taking unnecessary or excessive risks. The Governance Committee

and the Board also generally have the discretion to adjust annual bonuses and stock option grants based on individual performance and any other factors they may determine to be appropriate in the circumstances. Such factors may include, where necessary or appropriate, the level of risk-taking a particular executive officer may have engaged in during the preceding year.

Based on the foregoing, the Governance Committee has not identified any specific risks associated with our executive compensation program that are reasonably likely to have a material adverse effect on us. The Governance Committee believes that our executive compensation program does not encourage or reward any unnecessary or excessive risk-taking behaviour.

The Board of Directors, based on the Governance Committee's recommendation, set our corporate goals at the end of 2013, which constituted the 2014 performance objectives for the Chief Executive Officer and our other executive officers. The performance objectives are not established for individual executive officers but rather by functional area(s), many of which are carried out by or fall within the responsibility of our Chairman, President and Chief Executive Officer, Chief Financial Officer and our other executive officers, including our Named Executive Officers.

| Objectives for 2014   | Results for 2014  |
|---|---|
| Financing   | Secure a minimum of \$20 million additional cash  |
|   | \$25 million raised over the first ten months of the year.  |
| MACRILEN™ (macimorelin)   | Complete the preparations for the commercial launch of MACRILEN™ (macimorelin)  |
|   | The commercial launch preparations were completed on schedule.  |
| Zoptarelin doxorubicin<br>ZoptEC (Zoptarelin doxorubicin in Endometrial Cancer) Phase 3 program | Enroll 173 patients in the Phase 3 clinical trial by the end of the first half of 2014 and a total of 345 patients by the end of the year   |
|   | The targeted enrollment of patients was achieved on schedule.   |
| AEZS-120  | Finalize recommendation regarding a Phase 1 trial   |
|   | As a result of additional scientific evaluation, the decision was made to place this project on hold.   |
| Product acquisitions<br>(acquisitions; in-licensing; promotion)                                 | Close deal on product acquisition of existing approved products with minimum current revenues of \$5 million and with a three-year revenue outlook of a minimum of \$30 million                                       |
|   | Agreement reached with Ascend Therapeutics USA LLC for the co-promotion of EstroGel®; our sales force started selling EstroGel® on November 20, 2014.   |
| Global Resource Optimization  | Develop a recommendation for the reorganization of the organization and work structure of the R&D team to increase productivity and output, with a goal of reducing the annual burn-rate by a minimum of 25%          |
|   | The reorganization plans were finalized and approved and the implementation process was started, with the result that staffing will be reduced by approximately 33% by the end of the first calendar quarter of 2015. |

The determination of individual performance does not involve quantitative measures using a mathematical calculation in which each individual performance objective is given a numerical weight. Instead, the Governance Committee's determination of individual performance is a subjective determination as to whether a particular executive officer substantially achieved the stated objectives or over-performed or under-performed with respect to corporate objectives that were deemed to be important to our success.

While we have not formally adopted a policy prohibiting or restricting our executive officers and directors from purchasing financial instruments, including, for greater certainty, pre-paid variable forward contracts, equity swaps, collars, or units of exchange funds, which are designed to hedge or offset a decrease in market value of our equity securities granted as executive compensation or directors' remuneration, our executive officers and directors have not historically engaged in such financial instruments or transactions. In addition, our disclosure and trading policy requires that all "reporting insiders", including executive officers and directors, pre-clear with our Corporate Secretary each trade of our securities, which would include the entering into of any such financial instrument or transaction, hedge, swap or forward contract.

#### Benchmarking

In 2013, we benchmarked our executive compensation plan in an effort to determine whether we were achieving our objective of providing market competitive compensation opportunities. We did not repeat or update the benchmarking

process in 2014 because we concluded that doing so would not provide additional meaningful data. We may repeat or update the process in the future, if changes to our circumstances suggest that embarking on the process is warranted. Information regarding the 2013 benchmarking process is presented below because we think it is useful in understanding our compensation policies and philosophy in 2014.

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Reda performed the benchmarking study for us. Reda gathered data from organizations of comparable size and/or stage of development or other companies with which we compete for executive talent (the "Reference Group"). An overview of the characteristics of the Reference Group is provided in the following table:

(In millions of US\$)

|                               | Aeterna Zentaris         | Reference Group     |
|-------------------------------|--------------------------|---------------------|
| Location                      | North America and Europe | North America       |
| Industries                    | Biopharmaceutical        | Biopharmaceutical   |
| Revenues                      |                          |                     |
| For fiscal year ended in 2012 | 33.7 <sup>(1)</sup>      | 17.5 <sup>(2)</sup> |
| Market Capitalization         |                          |                     |
| As at April 30, 2013          | 46.1                     | 155.0               |
| Net Loss                      |                          |                     |
| For fiscal year ended in 2012 | 20.4 <sup>(1)</sup>      | 17.4 <sup>(2)</sup> |

For the year ended December 31, 2012, as presented in our 2012 audited consolidated financial statements, which (1) were presented in conformity with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

(2) The Reference Group for the financial year ended December 31, 2013 was selected in June 2013, and these data are based on their most recently completed fiscal year at such time.

The Reference Group used in respect of the financial year ended December 31, 2013 was composed of the following companies within the biopharmaceutical sector: Affymax Inc., Agenus Inc., Arqule Inc., Astex Pharmaceuticals Inc., Aveo Pharmaceuticals Inc., Cancer Genetics Inc., Cell Therapeutics Inc., Cleveland Biolabs Inc., Curis Inc., Galena Biopharma Inc., Helix Biopharma Corp., Immunomedics Inc., Insys Therapeutics Inc., Isoray Inc., Maxigen Inc., Merrimack Pharmaceuticals Inc., Oncogenex Pharmaceuticals Inc., Peregrine Pharmaceuticals Inc., Pharmathene Inc., Progenics Pharmaceutical Inc., Repligen Corp., Savient Pharmaceuticals Inc., Targacept Inc., Verastem Inc. and Vical Inc.

#### Positioning

Our compensation policy is for executive compensation to be generally aligned with the 50<sup>th</sup> percentile, or the mid-point, of the Reference Group. The Governance Committee uses discretion and judgment when determining compensation levels as they apply to a specific executive officer. Individual compensation may be positioned above or below median, based on individual experience and performance or other criteria deemed important by the Governance Committee. For 2014, the total cash target payment (base salary and, if applicable or awarded in cash, annual bonus) for our executive officers was set at approximately the 50<sup>th</sup> percentile competitive range of 2013 data of the Reference Group, however, in light of the fact that a cash bonus in an amount significantly less than maximum target payout was paid to only four of our "Named Executive Officers" (defined as the Chief Executive Officer, the Chief Financial Officer and our three other most highly compensated executive officers, namely Messrs. Dodd, Turpin, Sachse, Dinges and Santorelli, the total cash compensation (base salary and annual cash bonus) paid to our executive officers with respect to 2014 fell below the 50<sup>th</sup> percentile competitive range of 2013 data of the Reference Group and, more specifically, fell at approximately the 27<sup>th</sup> percentile range of the Reference Group.

#### Compensation Elements

An executive compensation policy has been established to acknowledge and reward the contributions of our executive officers to our success and to ensure competitive compensation, so that we may benefit from the expertise required to pursue our objectives.

Our executive compensation policy is comprised of both fixed and variable components. The variable components include equity and non-equity incentive plans. Each compensation component is intended to serve a different function, but all elements are intended to work in concert to maximize both corporate and individual performance by establishing specific, competitive operational and corporate goals and by providing financial incentives to employees based on their level of attainment of these goals.

Our current executive compensation program is comprised of the following four basic components:

- (i) base salary;
- (ii) non-equity incentives - consisting of an annual bonus linked to both individual and corporate performance;

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long-term equity incentives - consisting solely of stock options granted under our stock option plan established for (iii) the benefit of our directors, certain executive officers and other participants as may be designated from time to time by either the Board or the Governance Committee (the "Stock Option Plan"); and (iv) other elements of compensation - consisting of benefits, perquisites and retirement benefits.

#### Base Salary

Salaries of our executive officers are based on a comparison with competitive benchmark positions. The starting point to determine executive base salaries is the median of executive salaries in the Reference Group. In determining individual base salaries, the Governance Committee takes into consideration individual circumstances that may include the scope of an executive's position, the executive's relevant competencies or experience and retention risk. The Governance Committee also takes into consideration the fulfillment of our corporate objectives, as well as the individual performance of the executive.

#### Short-Term Incentive Compensation

The short-term incentive compensation plan sets out the allocation of incentive awards based on the advancement of our product pipeline, the success of our commercial efforts, our financial position and the extent to which we achieved our strategic objectives.

In the case of executive officers, a program is designed to maximize both corporate and individual performance by establishing specific operational, clinical, regulatory, financial, commercial and corporate goals and to provide financial incentives to executive officers based on their level of attainment of these goals. The granting of incentives requires the approval of both the Governance Committee and the Board and is based upon an assessment of each individual's performance, as well as our performance. The underlying objectives are set at the end of each financial year as part of the annual review of corporate strategies.

For the financial year ended December 31, 2014, the Governance Committee recommended, and the Board approved the payment of bonuses to certain of our executive officers in respect of the 2014 year, as indicated below. The Governance Committee recommended, and the Board approved, the grant of long-term incentive stock options to our executive officers in respect of the 2014 year in the amounts described below.

In making decisions related to the short-term incentive compensation for the Named Executive Officers during the most recently completed financial year, the conclusions of the Governance Committee were based, in part, on the goals and results for 2014, as described in the Section captioned "Risk Assessment of Executive Compensation Program".

Mr. Turpin's 2014 goals were aligned with our overall objectives, with an emphasis on securing financing for our continued operations. In respect of the 2014 year, the Governance Committee determined that Mr. Turpin's individual performance surpassed his pre-fixed objectives. Under Mr. Turpin's financial direction, we raised approximately \$25 million of equity financing, which enabled us to end the year with cash and cash equivalents that significantly exceeded the budgeted amount. In light of the foregoing, the Governance Committee determined that Mr. Turpin's contributions to the achievement of our goals merited a cash bonus in the amount of CAN\$25,000, representing 21% of his maximum target bonus amount.

Dr. Sachse's 2014 goals were aligned with our overall objectives, with an emphasis on reorganizing and strengthening the research and development team in our Frankfurt, Germany office. He also played a key role in eliminating deficiencies in the performance schedule for our Phase 3 clinical trial of zoptarelin doxorubicin. In light of his contributions, the Governance Committee determined that Dr. Sachse should receive a cash bonus in the amount of €50,000, representing 50% of his maximum target bonus amount.

Mr. Dinges' 2014 goals were aligned with our overall objectives, with an emphasis on establishing our commercial operation so that we could begin selling products that we develop, in-license or co-promote. Under Mr. Dinges' leadership, we established a sales force and began co-promoting our first product in the fourth quarter of 2014. In light of the foregoing, the Governance Committee determined that Mr. Dinges' contributions to the achievement of our goals merited a cash bonus in the amount of US\$25,000, representing 26% of his maximum target bonus amount. The Governance Committee did not award bonuses to any of our other Named Executive Officers, other than Mr. Dodd, whose compensation is described below in the section captioned "Compensation of the Chief Executive Officer".



### Long-Term Equity Compensation Plan of Executive Officers

The long-term component of the compensation of our executive officers is based exclusively on the Stock Option Plan, which permits the award of a number of options based on the contribution of the officers and their responsibilities. To encourage retention and focus management on developing and successfully implementing our continuing growth strategy, stock options have historically vested over a period of three years, with the first third vesting on the first anniversary of the date of grant. However, the vesting schedule for certain stock options granted to senior executives in the financial years ended December 2012, 2011, 2010 and 2009 was accelerated from three years to eighteen months since a portion of these grants was intended to serve as a partial or total replacement for cash bonuses. In December 2013, the Governance Committee and the Board determined that going forward, all stock options would vest over a period of three years with the first third vesting on the first anniversary of the date of grant. Stock options are usually granted to executive officers in December of each year.

### Summary of the Stock Option Plan

We established the Stock Option Plan in order to attract and retain directors, officers, employees and suppliers of ongoing services, who will be motivated to work towards ensuring our success. The Board has full and complete authority to interpret the Stock Option Plan, to establish applicable rules and regulations and to make all other determinations it deems necessary or useful for the administration of the Stock Option Plan, provided that such interpretations, rules, regulations and determinations are consistent with the rules of all stock exchanges and quotation systems on which our securities are then traded and with all relevant securities legislation.

The Stock Option Plan provides that the sole persons eligible to receive grants under the Stock Option Plan (each, a "Participant") shall be: (i) our most senior executive officers, including the persons occupying the positions of Chief Executive Officer, Chief Financial Officer, Chief Scientific Officer, Chief Commercial Officer, Chief Administrative Officer and Chief Compliance Officer; (ii) such other of our executive officers or executive officers of our subsidiaries that may, from time to time, report directly to the Chief Executive Officer; (iii) the non-employee, independent members of the Board; and (iv) such other of our officers or employees or the officers or employees of any of our subsidiaries, as the case may be, or suppliers of ongoing services, as may be expressly designated by resolution of the Board or the Governance Committee.

The maximum number of Common Shares issuable under the Stock Option Plan is fixed at 11.4% of the issued and outstanding Common Shares at any given time, which, as of March 16, 2015, represented 10,323,514 Common Shares. There were 3,885,200 options outstanding under the Stock Option Plan representing approximately 4.3% of all issued and outstanding Common Shares on March 16, 2015.

Under the Stock Option Plan, (i) the number of securities issuable to insiders, at any time, or issued within any one-year period, under all of our security-based compensation arrangements, cannot exceed 10% of our issued and outstanding securities and (ii) no single Participant may hold options to purchase, from time to time, more than 5% of our issued and outstanding Common Shares. In addition: (i) the aggregate fair value of options granted under all of our security-based compensation arrangements to any one of our Outside Directors entitled to receive a benefit under the Stock Option Plan, within any one-year period, cannot exceed US\$100,000 valued on a Black-Scholes basis and as determined by the Governance Committee; and (ii) the aggregate number of securities issuable to all of our Outside Directors entitled to receive a benefit under the Stock Option Plan, within any one-year period, under all of our security-based compensation arrangements, cannot exceed 1% of its issued and outstanding securities.

Options granted under the Stock Option Plan may be exercised at any time within a maximum period of seven or ten years following the date of their grant (the "Outside Expiry Date"), depending on the date of grant. The Board or the Governance Committee, as the case may be, designates, at its discretion, the specific Participants to whom stock options are granted under the Stock Option Plan and determines the number of Common Shares covered by each of such option grants, the grant date, the exercise price of each option, the Outside Expiry Date and any other matter relating thereto, in each case in accordance with the applicable rules and regulations of the regulatory authorities. The price at which the Common Shares may be purchased may not be lower than the greater of the closing prices of the Common Shares on the TSX or the NASDAQ, as applicable, on the last trading day preceding the date of grant of the option. Options granted under the Stock Option Plan shall vest in equal tranches over a three-year period (one-third each year, starting on the first anniversary of the grant date) or as otherwise determined by the Board or the

Governance Committee, as the case may be.

Unless the Board or the Governance Committee decides otherwise, Participants cease to be entitled to exercise their options under the Stock Option Plan: (i) immediately, in the event a Participant who is an officer or employee resigns or voluntarily leaves his or her employment or his or her employment is terminated with cause and, in the case of a Participant who is a non-employee director of us or one of our subsidiaries, the date on which such Participant ceases to be a member of the relevant Board of Directors; (ii) six months following the date on which employment is terminated as a result of the death of a Participant who is an officer or employee and, in the case of a Participant who is an Outside Director, six months following the

date on which such Participant ceases to be a member of the Board of Directors by reason of death; (iii) 90 days following the date on which a Participant's employment is terminated for a reason other than those mentioned in (i) or (ii) above including, without limitation, upon the disability, long-term illness, retirement or early retirement of the Participant; and (iv) where the Participant is a service supplier, 30 days following the date on which such Participant ceases to act as such, for any cause or reason (each, an "Early Expiry Date").

The Stock Option Plan also provides that, if the expiry date of one or more options (whether an Early Expiry Date or an Outside Expiry Date) occurs during a "blackout period" or within the seven business days immediately after a blackout period imposed by us, the expiry date will be automatically extended to the date that is seven business days after the last day of the blackout period. For the purposes of the foregoing, "blackout period" means the period during which trading in our securities is restricted in accordance with our corporate policies.

Participants may not assign their options (nor any interest therein) other than by will or in accordance with the applicable laws of estates and succession.

If (i) we accept an offer to amalgamate, merge or consolidate with any other entity (other than one of our wholly-owned subsidiaries) or to sell or license all or substantially all of our assets to any other entity (other than one of our wholly-owned subsidiaries); (ii) we sign a support agreement in customary form pursuant to which the Board agrees to support a takeover bid and recommends that our shareholders tender their Common Shares to such takeover bid; or (iii) holders of greater than 50% of our then outstanding Common Shares tender all of their Common Shares to a takeover bid made to all of the holders of the Common Shares to purchase all of the then issued and outstanding Common Shares, then, in each case, all of the outstanding options shall, without any further action required to be taken by us, immediately vest. Each Participant shall thereafter be entitled to exercise all of such options at any time up to and including, but not after the close of business on that date which is ten days following the Closing Date (as defined below). Upon the expiration of such ten-day period, all rights of the Participant to such options or to the exercise of same (to the extent not already exercised) shall automatically terminate and have no further force or effect whatsoever. "Closing Date" is defined to mean (x) the closing date of the amalgamation, merger, consolidation, sale or license transaction in the case of clause (i) above; (y) the first expiry date of the takeover bid on which each of the offeror's conditions are either satisfied or waived in the case of clause (ii) above; or (z) the date on which it is publicly announced that holders of greater than 50% of our then outstanding Common Shares have tendered their Common Shares to a takeover bid in the case of clause (iii) above.

The Stock Option Plan provides that the following amendments may be made to the plan upon approval of each of the Board and our shareholders as well as receipt of all required regulatory approvals:

- any amendment to Section 3.2 of the Stock Option Plan (which sets forth the limit on the number of options that may be granted to insiders) that would have the effect of permitting, without having to obtain shareholder approval on a "disinterested vote" at a duly convened shareholders' meeting, the grant of any option(s) under the Stock Option Plan otherwise prohibited by Section 3.2;
- any amendment to the number of securities issuable under the Stock Option Plan (except for certain permitted adjustments, such as in the case of stock splits, consolidations or reclassifications);
- any amendment which would permit any option granted under the Stock Option Plan to be transferable or assignable other than by will or in accordance with the applicable laws of estates and succession;
- the addition of a cashless exercise feature, payable in cash or securities, which does not provide for a full deduction of the number of underlying securities from the Stock Option Plan reserve;
- the addition of a deferred or restricted share unit component or any other provision which results in employees receiving securities while no cash consideration is received by us;
- with respect to any Participant whether or not such Participant is an "insider" and except in respect of certain permitted adjustments, such as in the case of stock splits, consolidations or reclassifications:
- any reduction in the exercise price of any option after the option has been granted, or
- any cancellation of an option and the re-grant of that option under different terms, or
- any extension to the term of an option beyond its Outside Expiry Date to a Participant who is an "insider" (except for extensions made in the context of a "blackout period");
-

any amendment to the method of determining the exercise price of an option granted pursuant to the Stock Option Plan;

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the addition of any form of financial assistance or any amendment to a financial assistance provision which is more favourable to employees; and

any amendment to the foregoing amending provisions requiring Board, shareholder and regulatory approvals.

The Stock Option Plan further provides that the following amendments may be made to the Stock Option Plan upon approval of the Board and upon receipt of all required regulatory approvals, but without shareholder approval:

amendments of a "housekeeping" or clerical nature or to clarify the provisions of the Stock Option Plan;

amendments regarding any vesting period of an option;

amendments regarding the extension of an option beyond an Early Expiry Date in respect of any Participant, or the extension of an option beyond the Outside Expiry Date in respect of any Participant who is a "non-insider";

adjustments to the number of issuable Common Shares underlying, or the exercise price of, outstanding options resulting from a split or a consolidation of the Common Shares, a reclassification, the payment of a stock dividend,

the payment of a special cash or non-cash distribution to our shareholders on a pro rata basis provided such distribution is approved by our shareholders in accordance with applicable law, a recapitalization, a reorganization or

any other event which necessitates an equitable adjustment to the outstanding options in proportion with corresponding adjustments made to all outstanding Common Shares;

discontinuing or terminating the Stock Option Plan; and

any other amendment which does not require shareholder approval under the terms of the Stock Option Plan.

## Outstanding Option-Based Awards and Share-Based Awards

The following table shows all awards outstanding to our Named Executive Officers as of December 31, 2014:

| Name              | Option-based Awards           |   |  |  |   | Share-based Awards |   |  |
|-------------------|-------------------------------|---|--|--|---|--------------------|---|--|
|                   | Issuance Date<br>(mm-dd-yyyy) | Number of Securities Underlying Unexercised Options <sup>(1)</sup><br>(#) | Option Exercise Price<br>(CAN\$ or US\$) | Option Expiration Date<br>(mm-dd-yyyy) | Value of Unexercised In-the-money Options <sup>(2)</sup><br>(CAN\$ or US\$) | Issuance Date      | Number of Shares or Units of shares that have Not Vested<br>(#) | Market or Payout Value of Share-based Awards that have Not Vested <sup>(3)</sup><br>(\$) |
| Dodd, David A.    | 04/15/2013                    | 300,000 <sup>(4)</sup>  | US\$1.98                                 | 04/14/2023                             | —   | —                  | —   | —  |
|                   | 04/15/2013                    | —   | —  | —                                      | —   | 04/15/2013         | 200,000 <sup>(5)</sup>  | —  |
|                   | 12/04/2014                    | 475,000   | US\$0.76                                 | 12/04/2021                             | —   | —                  | —   | —  |
| Turpin, Dennis    | 12/13/2005                    | 8,333   | CAN\$21.18                               | 12/12/2015                             | —   | —                  | —   | —  |
|                   | 01/04/2007                    | 8,333   | CAN\$27.90                               | 01/03/2017                             | —   | —                  | —   | —  |
|                   | 12/11/2007                    | 8,333   | CAN\$10.92                               | 12/10/2017                             | —   | —                  | —   | —  |
|                   | 12/09/2009                    | 19,166  | CAN\$5.70                                | 12/08/2019                             | —   | —                  | —   | —  |
|                   | 12/08/2010                    | 9,475   | CAN\$9.12                                | 12/07/2020                             | —   | —                  | —   | —  |
|                   | 12/07/2011                    | 17,353  | US\$10.44                                | 12/06/2021                             | —   | —                  | —   | —  |
|                   | 12/06/2012                    | 84,000  | US\$2.17                                 | 12/05/2022                             | —   | —                  | —   | —  |
|                   | 12/04/2014                    | 175,000   | US\$0.76                                 | 12/04/2021                             | —   | —                  | —   | —  |
| Sachse, Richard   | 01/16/2014                    | 150,000 <sup>(6)</sup>  | US\$1.29                                 | 01/15/2021                             | —   | —                  | —   | —  |
|                   | 12/04/2014                    | 130,000   | US\$0.76                                 | 12/04/2021                             | —   | —                  | —   | —  |
| Dinges, Jude      | 11/27/2013                    | 150,000 <sup>(7)</sup>  | US\$1.12                                 | 11/26/2023                             | —   | —                  | —   | —  |
|                   | 12/04/2014                    | 166,000   | US\$0.76                                 | 12/04/2021                             | —   | —                  | —   | —  |
| Santorelli, Keith | 05/09/2014                    | 75,000  | US\$1.07                                 | 05/08/2021                             | —   | —                  | —   | —  |
|                   | 12/04/2014                    | 30,000  | US\$0.76                                 | 12/04/2021                             | —   | —                  | —   | —  |

(1) The number of securities underlying unexercised options represents all awards outstanding at December 31, 2014.

"Value of unexercised in-the-money options" at financial year-end is calculated based on the difference between the closing prices of the Common Shares on the TSX or the NASDAQ, as applicable, on the last trading day of the year (December 31, 2014) of CAN\$0.69 and US\$0.60, respectively, and the exercise price of the options, multiplied by the number of unexercised options.

"Market or Payout Value of Share-based Awards that have Not Vested" at financial year-end is calculated based on the excess, if any, of the closing price of a Common Share on the last trading day of the year (December 31, 2014) over \$1.98, being the closing price of a Common Share on the NASDAQ on the last trading day preceding the effective date of Mr. Dodd's appointment multiplied by 200,000. See also note (5) below.

(4) David A. Dodd was appointed President and Chief Executive Officer effective April 15, 2013 and was granted 300,000 stock options in connection with such appointment.

(5) Pursuant to Mr. Dodd's Employment Agreement, we agreed to pay Mr. Dodd a retention bonus if he remains employed through December 31, 2015 equal to (a) the excess, if any, of the closing price of a Common

Share on the last regular trading day in 2015 over \$1.98, being the closing price of a Common Share on the NASDAQ on the last trading day preceding the effective date of Mr. Dodd's appointment multiplied by (b) 200,000. The share-based retention bonus will be paid in US dollars no later than March 15, 2016.

(6) Richard Sachse was appointed Senior Vice President and Chief Scientific Officer effective January 1, 2014 and was granted 150,000 stock options in connection with such appointment.

(7) Jude Dinges was appointed Senior Vice President and Chief Commercial Officer effective November 1, 2013 and was granted 150,000 stock options in connection with such appointment.

There are no vested share-based awards that have not yet been paid out or distributed.

## Incentive Plan Awards — Value Vested or Earned During the Year

The following table shows the incentive plan awards value vested or earned for each Named Executive Officer for the financial year ended December 31, 2014.

| Name              | Option-based awards — Value vested during the year <sup>(1)</sup> | Share-based awards — Value vested during the year | Non-equity incentive plan compensation — Value earned during the year |
|-------------------|---|---|---|
|                   | (\$)  | (\$)  | (\$)  |
| Dodd, David A.    | —   | —   | 100,000   |
| Turpin, Dennis    | —   | —   | 22,013  |
| Sachse, Richard   | —   | —   | 62,463  |
| Dinges, Jude      | —   | —   | 25,000  |
| Santorelli, Keith | —   | —   | —   |

Represents the aggregate dollar value that would have been realized if the options had been exercised on the (1) vesting date, based on the difference between the closing price of the Common Shares on the NASDAQ and the exercise price on such vesting date.

## Other Forms of Compensation

## Benefits and Perquisites

Our executive employee benefits program also includes life, medical, dental and disability insurance. Several of our executive officers also receive a car allowance as a perquisite. These benefits and perquisites are designed to be competitive overall with equivalent positions in comparable North American organizations in the life sciences industry.

## Employer Contribution to Employees' Retirement Plan

In 2008, the Board approved a plan whereby we would contribute to our Canadian and United States employees' retirement plans to the extent of 50% of the employee's contribution up to a maximum of \$7,750 annually for Canadian employees under 50 years old and \$8,750 for those in the United States. The plan also includes a contribution for employees over 50 years old up to a maximum of \$10,250 for Canadian employees and \$11,500 for those in the United States. The contribution amounts for our United States employees are subject to limitations imposed by the United States Internal Revenue Service on contributions to our most highly compensated employees. Employees based in Frankfurt, Germany also benefit from certain employer contributions into the employees' pension funds. Our executive officers, including the Named Executive Officers, are eligible to participate in such employer-contribution plans to the same extent and in the same manner as all other employees.

## Summary Compensation Table

The Summary Compensation Table set forth below shows compensation information for each of the Named Executive Officers for services rendered in all capacities during each of the financial years ended December 31, 2014, 2013 and 2012.

## SUMMARY COMPENSATION TABLE

| Name and principal position  | Years | Salary<br>(\$) | Share based awards<br>(\$) | Option based awards <sup>(1)</sup><br>(\$) | Non-equity incentive plan compensation |                                   | Pension Value<br>(\$) | All other compensation<br>(\$) | Total compensation <sup>(2)</sup><br>(\$) |
|--|-------|----------------|----------------------------|--|--|-----------------------------------|-----------------------|--------------------------------|---|
|  |       |                |                            |  | Annual incentive plan<br>(\$)          | Long-term incentive plans<br>(\$) |                       |                                |   |
| Dodd, David A.   | 2014  | 475,000        | —                          | 291,914                                    | 100,000                                | —                                 | —                     | 11,500                         | <sup>(5)</sup> 878,414                    |
| Chairman, President and Chief Executive Officer  | 2013  | 328,846        | <sup>(3)</sup> 414,048     | <sup>(4)</sup> 474,606                     | 50,000                                 | —                                 | —                     | 11,500                         | <sup>(5)</sup> 1,279,000                  |
|  | 2012  | —              | —                          | —  | —                                      | —                                 | —                     | —                              | —   |
| Turpin, Dennis<br>Senior Vice President and Chief Financial Officer                          | 2014  | 309,299        | —                          | 107,547                                    | 22,013                                 | —                                 | —                     | 4,403                          | <sup>(5)</sup> 443,262                    |
|  | 2013  | 331,652        | —                          | —  | 66,677                                 | —                                 | —                     | 4,763                          | <sup>(5)</sup> 403,092                    |
| Sachse, Richard<br>Senior Vice President, Chief Scientific Officer and Chief Medical Officer | 2012  | 341,605        | —                          | 149,787                                    | —                                      | —                                 | —                     | —                              | 491,392                                   |
|  | 2014  | 265,752        | —                          | 235,017                                    | 62,463                                 | —                                 | —                     | 27,239                         | <sup>(5)</sup> 590,471                    |
| Dinges, Jude<br>Senior Vice President and Chief Commercial Officer                           | 2013  | —              | —                          | —  | —                                      | —                                 | —                     | —                              | —   |
|  | 2012  | —              | —                          | —  | —                                      | —                                 | —                     | —                              | —   |
| Santorelli, Keith<br>Vice President, Finance   | 2014  | 320,000        | —                          | 102,016                                    | 25,000                                 | —                                 | —                     | 11,500                         | <sup>(5)</sup> 458,516                    |
|  | 2013  | 121,988        | <sup>(6)</sup> —           | 135,542                                    | —                                      | —                                 | —                     | 2,354                          | <sup>(5)</sup> 259,884                    |
|  | 2012  | —              | —                          | —  | —                                      | —                                 | —                     | —                              | —   |
|  | 2014  | 240,000        | —                          | 82,554                                     | —                                      | —                                 | —                     | 8,750                          | <sup>(5)</sup> 331,304                    |
|  | 2013  | 27,692         | <sup>(7)</sup> —           | —  | —                                      | —                                 | —                     | 1,108                          | <sup>(5)</sup> 28,800                     |
|  | 2012  | —              | —                          | —  | —                                      | —                                 | —                     | —                              | —   |

The value of option-based awards represents the closing price of the Common Shares on the NASDAQ on the last trading day preceding the date of grant (US\$1.29 for options granted on January 16, 2014, US\$1.07 for options granted on May 9, 2014 and US\$0.76 for options granted on December 4, 2014) multiplied by the Black-Scholes factor as at such date (80.17% for options granted on January 16, 2014, 79.90% for options granted on May 9, 2014 and 80.86% for options granted on December 4, 2014) and the number of stock options granted on such date. "All Other Compensation" represents perquisites and other personal benefits which, in the aggregate, amount to \$50,000 or more, or are equivalent to 10% or more of a Named Executive Officer's total salary for the financial year ended December 31, 2014. The type and amount of each perquisite, the value of which exceeds 25% of the total value of perquisites, is separately disclosed for each Named Executive Officer, if applicable.

<sup>(3)</sup> Represents the salary earned by and paid to Mr. Dodd following his appointment as President and Chief Executive Officer on April 15, 2013.

<sup>(4)</sup> The value of Mr. Dodd's share-based awards represents the closing price of the Common Shares on the NASDAQ on the last trading day preceding the date of grant (US\$1.98 for share appreciation rights ("SARS") granted on April 15, 2013) multiplied by the Black-Scholes factor as at such date (175,000 SARS at a factor of 54% and 200,000 SARS at a factor of 58%) and the number of SARS granted on such date.

<sup>(5)</sup> Represents employer contributions to the executive's retirement savings plan.

Represents consultant fees paid to Mr. Dinges between May 12, 2013 and October 31, 2013 combined with the (6) salary paid to him following his appointment as Senior Vice President and Chief Commercial Officer on November 1, 2013.

(7) Represents the salary earned by and paid to Mr. Santorelli following his appointment as Vice President, Finance on November 11, 2013.

#### Compensation of the Chief Executive Officer

The compensation of our Chairman, President and Chief Executive Officer is governed by our executive compensation policy described in the section titled "Compensation of Executive Officers", and the Chairman, President and Chief Executive Officer participates, together with the other Named Executive Officers, in all of the Company's incentive plans.

Mr. Dodd's total earned salary during the financial year ended December 31, 2014 was \$475,000, which places him at approximately 6% below the 50<sup>th</sup> percentile in the Reference Group.

Having considered Mr. Dodd's performance during the 2014 year, his significant operational and commercial experience and the fact that he is key to our continued operation and transformation, the Governance Committee recommended, and the Board approved that a cash bonus in the amount of US\$100,000 be awarded to Mr. Dodd in respect of the 2014 year.

For the financial year ended December 31, 2014, the Governance Committee recommended that 475,000 stock options be granted to the Mr. Dodd under the long-term equity compensation plan. The grant to Mr. Dodd is included in the table above captioned "Grants of Plan Based Awards". See "Long-Term Equity Compensation Plan of Executive Officers – Summary of the Stock Option Plan", for a complete description of the Stock Option Plan.

#### C. Board Practices

Our Articles provide that our Board shall be composed of a minimum of five and a maximum of 15 directors. Directors are elected annually by our shareholders, but the directors may from time to time appoint one or more directors, provided that the total number of directors so appointed does not exceed one-third of the number of directors elected at the last annual meeting of shareholders. Each elected director will remain in office until termination of the next annual meeting of the shareholders or until his or her successor is duly elected or appointed, unless his or her post is vacated earlier. For information regarding Mr. Dodd's employment agreement with us, which provides for benefits on termination of his employment, see "Item 10.C - Material Contracts". None of the other directors are party to any directors' service contracts with us providing for benefits on termination of employment.

#### Committees of the Board of Directors

##### Audit Committee

Our Board has established an Audit Committee and a Governance Committee.

The Audit Committee assists the Board in fulfilling its oversight responsibilities. The Audit Committee reviews the financial reporting process, the system of internal control, the audit process, and our process for monitoring compliance with laws and regulations and with our Code of Ethical Conduct. In performing its duties, the Audit Committee will maintain effective working relationships with the Board, management, and the external auditors. To effectively perform his or her role, each committee member will obtain an understanding of the detailed responsibilities of committee membership as well as our business, operations and risks.

The function of the Audit Committee is oversight and while it has the responsibilities and powers set forth in its charter (incorporated by reference to Exhibit 11.2), it is neither the duty of the committee to plan or to conduct audits or to determine that our financial statements are complete, accurate and in accordance with generally accepted accounting principles, nor to maintain internal controls and procedures.

The current members of the Audit Committee are José P. Dorais, Pierre Lapalme and Gérard Limoges.

##### Governance Committee

The mandate of the Governance Committee provides that it is responsible for taking all reasonable measures to ensure that appropriate human resources systems and procedures, such as hiring policies, competency profiles, training policies and compensation structures are in place so that we can attract, motivate and retain the quality of personnel required to meet our business objectives.

The Governance Committee also assists the Board in discharging its responsibilities relating to executive and other human resources hiring, assessment, compensation and succession planning matters.

Thus, the Governance Committee recommends the appointment of senior officers, including the terms and conditions of their appointment and termination, and reviews the evaluation of the performance of our senior officers, including recommending their compensation and overseeing risk identification and management in relation to executive compensation policies and practices. The Board, which includes the members of the Governance Committee, reviews the Chief Executive Officer's corporate goals and objectives and evaluates his or her performance and compensation in light of such goals and objectives.

The current members of the Governance Committee are Juergen Ernst, José P. Dorais and Carolyn Egbert.

## D. Employees

As at March 16, 2015, we had a total of 56 full time equivalents ("FTE"), of which 39 are based in Frankfurt, Germany, 6 in Charleston, South Carolina, United States, and 7 in Quebec City, Canada. Of these, 27 are involved in discovery, preclinical, clinical and pharmaceutical development, 3 are involved in regulatory affairs, quality assurance and intellectual property, and 26 are involved in business operations, communications, finance, information technology, human resources, project management and legal affairs. We have agreements with our employees covering confidentiality, loyalty, non-competition, and assignment to us of all intellectual property rights developed during the employment period.

## E. Share ownership

The information in the table below is provided as at December 31, 2014:

| Name                | No. of Common Shares owned or held | Percent <sup>(1)</sup> | No. of stock options held <sup>(2)</sup> | No. of currently exercisable options |
|---------------------|------------------------------------|------------------------|--|--------------------------------------|
| Aubut, Marcel       | 18,750                             | *                      | 126,665                                  | 43,333                               |
| Dinges, Jude        | 3,391                              | *                      | 316,000                                  | 50,000                               |
| Dodd, David A.      | 270,333                            | *                      | 775,000                                  | 100,000                              |
| Dorais, José P.     | —                                  | *                      | 113,333                                  | 30,001                               |
| Egbert, Carolyn     | 192,000                            | *                      | 97,500                                   | 17,501                               |
| Ernst, Juergen      | 134,808                            | *                      | 145,831                                  | 62,499                               |
| Guenther, Eckhard   | —                                  | *                      | 68,310                                   | 44,977                               |
| Lapalme, Pierre     | —                                  | *                      | 116,666                                  | 33,334                               |
| Limoges, Gérard     | 1,499                              | *                      | 126,665                                  | 43,333                               |
| Sachse, Richard     | —                                  | *                      | 280,000                                  | —                                    |
| Santorelli, Keith   | —                                  | *                      | 105,000                                  | —                                    |
| Teifel, Michael     | —                                  | *                      | 52,699                                   | 32,699                               |
| Theodore, Philip A. | —                                  | *                      | 200,000                                  | —                                    |
| Turpin, Dennis      | 3,541                              | *                      | 329,996                                  | 154,993                              |
| Total               | 624,322                            | 0.95                   | 2,853,665                                | 612,670                              |

\* Less than 1%

(1) Based on 65,509,077 Common Shares outstanding as at December 31, 2014.

(2) For information regarding option expiration dates and exercise price refer to the tables included under the caption "Outstanding Option-Based Awards and Share-Based Awards".

## Item 7. Major Shareholders and Related Party Transactions

## A. Major shareholders

We are not directly or indirectly owned or controlled by another corporation or by any foreign government. Based on filings with the SEC and the Canadian securities regulatory authorities, as at March 16, 2014, the only entity that beneficially owned, directly or indirectly, or exercised control or direction over our Common Shares carrying more than 5% of the voting rights attached to all our Common Shares was Capital Ventures International, a fund managed by Heights Capital Management Inc., which beneficially owned 5,112,903 of our Common shares, representing approximately 5.6% of our out-standing Common Shares.

## United States Shareholders

As at March 16, 2015, there were 90,557,142 holders of record of our Common Shares, of which two were registered with addresses in the United States holding in the aggregate approximately 96.6% of our outstanding Common Shares. We believe that the number of beneficial owners of our Common Shares is substantially greater than the number of record holders, because the overwhelming majority of our Common Shares are held in broker "street names".

## B. Related party transactions

None.



## C. Interests of experts and counsel

Not applicable.

## Item 8. Financial Information

## A. Consolidated statements and other financial information

The consolidated financial statements filed as part of this Annual Report on Form 20-F are presented under "Item 18. – Financial Statements".

## B. Significant changes

No significant changes occurred since the date of our annual consolidated financial statements included elsewhere in this Annual Report on Form 20-F.

## Item 9. The Offering and Listing

## A. Offer and listing details

Not Applicable, except for Item 9A(4).

Our Common Shares are listed on NASDAQ under the symbol "AEZS" and on the TSX under the symbol "AEZ".

The following table indicates, for the relevant periods, the high and low closing prices of our Common Shares on NASDAQ and on the TSX:

|                           | NASDAQ (US\$) |      | TSX (CAN\$) |      |
|---------------------------|---------------|------|-------------|------|
|                           | High          | Low  | High        | Low  |
| 2014                      | 1.50          | 0.52 | 1.66        | 0.57 |
| 2013                      | 3.23          | 1.03 | 3.27        | 1.08 |
| 2012                      | 12.90         | 1.87 | 12.84       | 1.87 |
| 2011                      | 15.48         | 8.58 | 15.06       | 8.46 |
| 2010                      | 12.54         | 4.74 | 12.84       | 4.80 |
| 2013                      |               |      |             |      |
| Fourth quarter            | 1.65          | 1.03 | 1.71        | 1.08 |
| Third quarter             | 1.98          | 1.37 | 2.09        | 1.41 |
| Second quarter            | 2.10          | 1.73 | 2.18        | 1.74 |
| First quarter             | 3.23          | 1.88 | 3.27        | 1.90 |
| 2014                      |               |      |             |      |
| Fourth quarter            | 1.34          | 0.52 | 1.51        | 0.57 |
| Third quarter             | 1.50          | 1.14 | 1.64        | 1.23 |
| Second quarter            | 1.23          | 1.05 | 1.35        | 1.13 |
| First quarter             | 1.49          | 1.17 | 1.66        | 1.29 |
| Most recent 6 months      |               |      |             |      |
| March 2015 <sup>(1)</sup> | 0.84          | 0.51 | 1.04        | 0.64 |
| February 2015             | 0.67          | 0.51 | 0.83        | 0.64 |
| January 2015              | 0.61          | 0.52 | 0.72        | 0.65 |
| December 2014             | 0.78          | 0.57 | 0.88        | 0.66 |
| November 2014             | 1.29          | 0.52 | 1.46        | 0.57 |
| October 2014              | 1.34          | 0.97 | 1.51        | 1.11 |
| September 2014            | 1.45          | 1.32 | 1.64        | 1.47 |

(1) Up to and including March 16, 2015

B. Plan of distribution

Not applicable.

C. Markets

Our Common Shares are listed and posted for trading on NASDAQ under the symbol "AEZS" and on the TSX under the symbol "AEZ".

D. Selling shareholders

Not applicable.

E. Dilution

Not applicable.

F. Expenses of the issuer

Not applicable.

Item 10. Additional Information

A. Share capital

Not applicable.

B. Memorandum and articles of association

We are governed by our restated articles of incorporation (the "Restated Articles of Incorporation") under the CBCA and by articles of amendment dated October 2, 2012 (together with the Restated Articles of Incorporation, the "Articles") and by our bylaws (the "bylaws"). Our Articles are on file with the Corporations Directorate of Industry Canada under Corporation Number 264271-9. The Articles do not include a stated purpose and do not place any restrictions on the business that we may carry on.

Inspection Rights of Shareholders

Under the CBCA, shareholders are entitled to be provided with a copy of the list of our registered shareholders. In order to obtain the shareholder list, a shareholder must provide to us an affidavit including, among other things, a statement that the list will only be used for the purposes permitted by the CBCA. These permitted purposes include an effort to influence the voting of our shareholders, an offer to acquire our securities and any other matter relating to our affairs. We are entitled to charge a reasonable fee for the provision of the shareholder list and must deliver that list no more than ten days after receipt of the affidavit described above.

Under the CBCA, shareholders have the right to inspect certain corporate records, including the Corporation's Articles and bylaws and minutes of meetings and resolutions of the shareholders. Shareholders have no statutory right to inspect minutes of meetings and resolutions of our directors. Our shareholders have the right to certain financial information respecting us. In addition to the annual and quarterly financial statements required to be filed under applicable securities laws, under the CBCA, we are required to place before every annual meeting of shareholders our audited comparative annual financial statements. In addition, shareholders have the right to examine the financial statements of each of our subsidiaries and any other corporate entity whose accounts are consolidated in our financial statements.

Directors

The minimum number of directors we must have is five and the maximum number is 15. In accordance with the CBCA, at least 25% of our directors must be residents of Canada. In order to serve as a director, a person must be a natural person at least 18 years of age, of sound mind, not bankrupt, and must not be prohibited by any court from holding the office of director. None of the Articles, the bylaws and the CBCA imposes any mandatory retirement requirements for directors.

The directors are elected by a majority of the votes cast at the annual meeting at which an election of directors is required, to hold office until the election of their successors except in the case of resignations or if their offices become vacant by death or otherwise. Subject to the provisions of our bylaws, all directors may, if still qualified to serve as directors, stand for re-election. The Board is not replaced at staggered intervals but is elected annually.

There is no provision in our bylaws or Articles that requires that a director must be a shareholder.

The directors are entitled to remuneration as shall from time to time be determined by the Board or by a committee to which the Board may delegate the power to do so. Under the mandate of our Governance Committee, such committee, comprised of a majority of independent directors, is tasked with making recommendations to the Board concerning director remuneration.

The CBCA provides that a director who is a party to, or who is a director or officer of, or has a material interest in, any person who is a party to a material contract or transaction or proposed material contract or transaction with us must disclose to us the nature and extent of his or her interest at the time and in the manner provided by the CBCA, or request that same be entered in the minutes of the meetings of the Board, even if such contract, in connection with our normal business activity, does not require the approval of either the directors or the shareholders. At the request of the president or any director, the director placed in a situation of conflict of interest must leave the meeting while the Board discusses the matter. The CBCA prohibits such a director from voting on any resolution to approve the contract or transaction unless the contract or transaction:

- relates primarily to his or her remuneration as our director, officer, employee or agent or an affiliate;
- is for indemnity or insurance for director's liability as permitted by the CBCA; or
- is with our affiliate.

The CBCA provides that the Board may, on our behalf and without authorization of our shareholders:

- borrow money upon our credit;
- issue, reissue, sell or pledge our debt obligations;
- give a guarantee on our behalf to secure performance of an obligation of any person; and
- mortgage, hypothecate, pledge or otherwise create a security interest in all or any of our property, owned or subsequently acquired, to secure any of our obligations.

The shareholders have the ability to restrict such powers through our Articles or bylaws (or through a unanimous shareholder agreement), but no such restrictions are in place.

The CBCA prohibits the giving of a guarantee to any of our shareholders, directors, officers or employees or of an affiliated corporation or to an associate of any such person for any purpose or to any person for the purpose of or in connection with a purchase of a share issued or to be issued by us or our affiliates, where there are reasonable grounds for believing that we are or, after giving the guarantee, would be unable to pay our liabilities as they become due, or the realizable value of our assets in the form of assets pledged or encumbered to secure a guarantee, after giving the guarantee, would be less than the aggregate of our liabilities and stated capital of all classes. These borrowing powers may be varied by our bylaws or Articles. However, our bylaws and Articles do not contain any restrictions on or variations of these borrowing powers.

Pursuant to the CBCA, our directors manage and administer our business and affairs and exercise all such powers and authority as we are authorized to exercise pursuant to the CBCA, the Articles and the bylaws. The general duties of our directors and officers under the CBCA are to act honestly and in good faith with a view to our best interests and to exercise the care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances. Any breach of these duties may lead to liability to us and our shareholders for breach of fiduciary duty. In addition, a breach of certain provisions of the CBCA, including the improper payment of dividends or the improper purchase or redemption of shares, will render the directors who authorized such action liable to account to us for any amounts improperly paid or distributed.

Our bylaws provide that the Board may, from time to time, appoint from amongst their number committees of the Board, and delegate to any such committee any of the powers of the Board except those which pursuant to the CBCA a committee of the Board has no authority to exercise. As such, the Board has two standing committees: the Audit Committee and the Governance Committee.

Subject to the limitations provided by the CBCA, our bylaws provide that we shall, to the full extent provided by law, indemnify a director or an officer, a former director or officer or a person who acts or acted at our request as a director or officer of a body corporate of which we are or were a shareholder or creditor, and his or her heirs and legal representatives, against all costs, losses, charges and expenses, including an amount paid to settle an action or satisfy a judgment, reasonably incurred by him or her in respect of any civil, criminal or administrative action or proceeding to which he or she is made a party by reason of having been our director or officer or such body corporate, provided:

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- (a) he or she acted in good faith in our best interests; and
- (b) in the case of a criminal or an administrative action or proceeding that is enforced by a monetary penalty, he or she had reasonable grounds to believe that his or her conduct was lawful.

Our directors are authorized to indemnify from time to time any director or other person who has assumed or is about to assume in the normal course of business any liability for us or for any corporation controlled by us and to secure such director or other person against any loss by the pledge of all or part of our movable or immovable property through the creation of a hypothec or any other real right in all or part of such property or in any other manner.

#### Share Capitalization

Our authorized share capital structure consists of an unlimited number of shares of the following classes (all classes are without nominal or par value): Common Shares; and first preferred shares (the "First Preferred Shares") and second preferred shares (the "Second Preferred Shares" and, together with the First Preferred Shares, the "Preferred Shares"), both issuable in series. As at March 16, 2015, there were 90,557,142 Common Shares outstanding. No Preferred Shares have been issued to date. We have also issued warrants to acquire Common Shares in connection with certain equity financings.

#### Common Shares

The holders of the Common Shares are entitled to one vote for each common share held by them at all meetings of shareholders, except meetings at which only shareholders of a specified class of shares are entitled to vote. In addition, the holders are entitled to receive dividends if, as and when declared by our Board of Directors on the Common Shares. Finally, the holders of the Common Shares are entitled to receive our remaining property upon any liquidation, dissolution or winding-up of our affairs, whether voluntary or involuntary. Shareholders have no liability to further capital calls as all shares issued and outstanding are fully paid and non-assessable.

#### Preferred Shares

The First and Second Preferred Shares are issuable in series with rights and privileges specific to each class. The holders of Preferred Shares are generally not entitled to receive notice of or to attend or vote at meetings of shareholders. The holders of First Preferred Shares are entitled to preference and priority to any participation of holders of Second Preferred Shares, Common Shares or shares of any other class of shares of our share capital ranking junior to the First Preferred Shares with respect to dividends and, in the event of our liquidation, the distribution of our property upon our dissolution or winding-up, or the distribution of all or part of our assets among the shareholders, to an amount equal to the value of the consideration paid in respect of such shares outstanding, as credited to our issued and paid-up share capital, on an equal basis, in proportion to the amount of their respective claims in regard to such shares held by them. The holders of Second Preferred Shares are entitled to preference and priority to any participation of holders of Common Shares or shares of any other class of shares of our share capital ranking junior to the Second Preferred Shares with respect to dividends and, in the event of our liquidation, the distribution of our property upon our dissolution or winding-up, or the distribution of all or part of our assets among the shareholders, to an amount equal to the value of the consideration paid in respect of such shares outstanding, as credited to our issued and paid-up share capital, on an equal basis, in proportion to the amount of their respective claims in regard to such shares held by them.

Our Board of Directors may, from time to time, provide for additional series of Preferred Shares to be created and issued, but the issuance of any Preferred Shares is subject to the general duties of the directors under the CBCA to act honestly and in good faith with a view to our best interests and to exercise the care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances.

#### Shareholder Actions

The CBCA provides that our shareholders may, with leave of a court, bring an action in our name and on our behalf for the purpose of prosecuting, defending or discontinuing an action on our behalf. In order to grant leave to permit such an action, the CBCA provides that the court must be satisfied that our directors were given adequate notice of the application, the shareholder is acting in good faith and that it appears to be in our best interests that the action be brought.

#### Shareholder Rights Plan

Our Board of Directors adopted a shareholder rights plan on March 23, 2010, which was initially confirmed and ratified by our shareholders on May 13, 2010 (the "Rights Plan").

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Under the terms of the Rights Plan, its continued existence was reconfirmed by our shareholders at our annual meeting of shareholders held on May 8, 2013.

#### Objectives and Background of the Shareholder Rights Plan

The fundamental objectives of the Rights Plan are to provide adequate time for our Board and shareholders to assess an unsolicited take-over bid for us, to provide the Board with sufficient time to explore and develop alternatives for maximizing shareholder value if a take-over bid is made, and to provide shareholders with an equal opportunity to participate in a take-over bid.

The Rights Plan encourages a potential acquiror who makes a take-over bid to proceed either by way of a "Permitted Bid", as described below, which requires a take-over bid to satisfy certain minimum standards designed to promote fairness, or with the concurrence of our Board. If a take-over bid fails to meet these minimum standards and the Rights Plan is not waived by the Board, the Rights Plan provides that holders of Common Shares, other than the acquiror, will be able to purchase additional Common Shares at a significant discount to market, thus exposing the person acquiring Common Shares to substantial dilution of its holdings.

#### Summary of the Rights Plan

The following is a summary of the principal terms of the Rights Plan, which summary is qualified in its entirety by reference to the terms thereof. Capitalized terms not otherwise defined in this summary shall have the meaning ascribed to such terms in the Shareholder Rights Plan Agreement which sets forth the Rights Plan. The Rights Plan is filed as an exhibit to this Annual Report on Form 20-F.

#### Operation of the Rights Plan

Pursuant to the terms of the Rights Plan, we issued one right in respect of each common share outstanding at 5:01 p.m. on March 29, 2010 (the "Effective Date"). In addition, we will issue one right for each additional Common Share issued after the Record Time and prior to the earlier of the Separation Time (as defined below) and the Expiration Time (as defined below). The rights have an initial exercise price equal to the Market Price (as defined below) of the Common Shares as determined at the Separation Time, multiplied by five, subject to certain anti-dilution adjustments (the "Exercise Price"), and they are not exercisable until the Separation Time. Upon the occurrence of a Flip-in Event (as defined below), each right will entitle the holder thereof, other than an Acquiring Person or any other person whose rights are or become void pursuant to the provisions of the Rights Plan, to purchase from us, effective at the close of business on the eighth trading day after the Stock Acquisition Date, upon payment to us of the Exercise Price, Common Shares having an aggregate Market Price equal to twice the Exercise Price on the date of consummation or occurrence of such Flip-in Event, subject to certain anti-dilution adjustments.

#### Definition of Market Price

Market Price is generally defined in the Rights Plan, on any given day on which a determination must be made, as the volume weighted average trading price of the Common Shares for the five consecutive trading days (i.e. days on which the TSX is open for the transaction of business, subject to certain exceptions), through and including the trading day immediately preceding such date of determination, subject to certain exceptions.

#### Trading of Rights

Until the Separation Time (or the earlier termination or expiration of the rights), the rights trade together with the Common Shares and are represented by the same share certificates as the Common Shares or an entry in our securities register in respect of any outstanding Common Shares. From and after the Separation Time and prior to the Expiration Time, the rights are evidenced by rights certificates and trade separately from the Common Shares. The rights do not carry any of the rights attaching to the Common Shares such as voting or dividend rights.

#### Separation Time

The rights will separate from the Common Shares to which they are attached and become exercisable at the time (the "Separation Time") of the close of business on the eighth business day after the earliest to occur of:

1. the first date (the "Stock Acquisition Date") of a public announcement of facts indicating that a person has become an Acquiring Person; and
2. the date of the commencement of, or first public announcement of the intention of any person (other than us or any of our subsidiaries) to commence a take-over bid or a share exchange bid for more than 20% of our outstanding Common Shares



other than a Permitted Bid or a Competing Permitted Bid (as defined below), so long as such take-over bid continues to satisfy the requirements of a Permitted Bid or a Competing Permitted Bid, as the case may be.

The Separation Time can also be such later time as may from time to time be determined by the Board, provided that if any such take-over bid expires, or is cancelled, terminated or otherwise withdrawn prior to the Separation Time, without securities deposited thereunder being taken up and paid for, it shall be deemed never to have been made and if the Board determines to waive the application of the Rights Plan to a Flip-in Event, the Separation Time in respect of such Flip-in Event shall be deemed never to have occurred.

From and after the Separation Time and prior to the Expiration Time, each right entitles the holder thereof to purchase one common share upon payment of the Exercise Price to us.

#### Flip-in Event

The acquisition by a person (an "Acquiring Person"), including others acting jointly or in concert with such person, of more than 20% of the outstanding Common Shares, other than by way of a Permitted Bid, a Competing Permitted Bid or in certain other limited circumstances described in the Rights Plan, is referred to as a "Flip-in Event".

In the event that, prior to the Expiration Time, a Flip-in Event which has not been waived occurs (see "Waiver and Redemption" below), each right (other than those held by or deemed to be held by the Acquiring Person) will thereafter entitle the holder thereof, effective as at the close of business on the eighth trading day after the Stock Acquisition Date, to purchase from us, upon payment of the Exercise Price and otherwise exercising such right in accordance with the terms of the Rights Plan, that number of Common Shares having an aggregate Market Price on the date of consummation or occurrence of the Flip-in Event equal to twice the Exercise Price, for an amount in cash equal to the Exercise Price (subject to certain anti-dilution adjustments described in the Rights Plan).

A bidder may enter into Lock-up Agreements with our shareholders ("Locked-up Persons") who are not affiliates or associates of the bidder and who are not, other than by virtue of entering into such agreement, acting jointly or in concert with the bidder, whereby such shareholders agree to tender their Common Shares to the take-over bid (the "Lock-up Bid") without the bidder being deemed to beneficially own the Common Shares deposited pursuant to the Lock-up Bid. Any such agreement must include a provision that permits the Locked-up Person to withdraw the Common Shares to tender to another take-over bid or to support another transaction that will either provide greater consideration to the shareholder than the Lock-up Bid or provide for a right to sell a greater number of shares than the Lock-up Bid contemplates (provided that the Lock-up Agreement may require that such greater number exceed the number of shares under the Locked-up Bid by a specified percentage not to exceed 7%).

The Lock-up Agreement may require that the consideration under the other transaction exceed the consideration under the Lock-up Bid by a specified amount. The specified amount may not be greater than 7%. For greater certainty, a Lock-up Agreement may contain a right of first refusal or require a period of delay (or other similar limitation) to give a bidder an opportunity to match a higher price in another transaction as long as the limitation does not preclude the exercise by the Locked-up Person of the right to withdraw the Common Shares during the period of the other take-over bid or transaction.

The Rights Plan requires that any Lock-up Agreement be made available to us and the public. The definition of Lock-up Agreement also provides that under a Lock-up Agreement, no "break up" fees, "topping" fees, penalties, expenses or other amounts that exceed in aggregate the greater of (i) 2.5% of the price or value of the aggregate consideration payable under the Lock-up Bid, and (ii) 50% of the amount by which the price or value of the consideration received by a Locked-up Person under another take-over bid or transaction exceeds what such Locked-up Person would have received under the Lock-up Bid, can be payable by such Locked-up Person if the Locked-up Person fails to deposit or tender Common Shares to the Lock-up Bid or withdraws Common Shares previously tendered thereto in order to deposit such Common Shares to another take-over bid or support another transaction.

#### Permitted Bid Requirements

The requirements of a Permitted Bid include the following:

1. the take-over bid must be made by means of a take-over bid circular;
2. the take-over bid must be made to all holders of Common Shares wherever resident, on identical terms and conditions, other than the bidder;

3. the take-over bid must not permit Common Shares tendered pursuant to the bid to be taken up or paid for:  
a) prior to the close of business on a date which is not less than 60 days following the date of the bid, and

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- then only if at such date more than 50% of the then outstanding Common Shares held by shareholders other than any other Acquiring Person, the bidder, the bidder's affiliates or associates, persons acting jointly or in concert with the bidder and any employee benefit plan, deferred profit-sharing plan, stock participation plan or trust for the benefit of our employees or the employees of any of our subsidiaries, unless the beneficiaries of such plan or trust direct the manner in which the Common Shares are to be voted or direct whether the Common Shares are to be tendered to a take-over bid (the "Independent Shareholders"), have been deposited or tendered to the take-over bid and not withdrawn;
4. the take-over bid must allow Common Shares to be deposited, unless the take-over bid is withdrawn, at any time up to the close of business on the date that the Common Shares are to be first taken up and paid for;
  5. the take-over bid must allow Common Shares to be withdrawn until taken up and paid for; and
  6. if more than 50% of the then outstanding Common Shares held by Independent Shareholders are deposited or tendered to the take-over bid within the 60-day period and not withdrawn, the bidder must make a public announcement of that fact and the take-over bid must remain open for deposits and tenders of Common Shares for not less than ten days from the date of such public announcement.

A Permitted Bid need not be a bid for all outstanding Common Shares not held by the bidder, i.e., a Permitted Bid may be a partial bid. The Rights Plan also allows a competing Permitted Bid (a "Competing Permitted Bid") to be made while a Permitted Bid is in existence. A Competing Permitted Bid must satisfy all the requirements of a Permitted Bid other than the requirement set out in clause 3(a) above and must not permit Common Shares tendered or deposited pursuant to the bid to be taken up or paid for prior to the close of business on a date which is earlier than 35 days (or such longer minimum period of days that the bid must be open for acceptance after the date of the bid under applicable Canadian provincial securities legislation) and the 60th day after the earliest date on which any other Permitted Bid or Competing Permitted Bid that is then in existence was made.

#### Waiver and Redemption

The Board may, prior to the occurrence of a Flip-in Event, waive the dilutive effects of the Rights Plan in respect of, among other things, a particular Flip-in Event resulting from a take-over bid made by way of a take-over bid circular to all holders of our Common Shares. In such an event, such waiver shall also be deemed to be a waiver in respect of any other Flip-in Event occurring under a take-over bid made by way of a take-over bid circular to all holders of Common Shares prior to the expiry of the first mentioned take-over bid.

The Board may, with the approval of a majority of Independent Shareholders (or, after the Separation Time has occurred, holders of rights, other than rights which are void pursuant to the provisions of the Rights Plan or which, prior to the Separation Time, are held otherwise than by Independent Shareholders), at any time prior to the occurrence of a Flip-in Event which has not been waived, elect to redeem all, but not less than all, of the then outstanding rights at a price of \$0.00001 each, appropriately adjusted as provided in the Rights Plan (the "Redemption Price").

Where a take-over bid that is not a Permitted Bid or Competing Permitted Bid is withdrawn or otherwise terminated after the Separation Time has occurred and prior to the occurrence of a Flip-in Event, the Board may elect to redeem all the outstanding rights at the Redemption Price without the consent of the holders of the Common Shares or the rights and reissue rights under the Rights Plan to holders of record of Common Shares immediately following such redemption. Upon the rights being so redeemed and reissued, all the provisions of the Rights Plan will continue to apply as if the Separation Time had not occurred, and the Separation Time will be deemed not to have occurred and we shall be deemed to have issued replacement rights to the holders of its then outstanding Common Shares.

#### Amendment to the Rights Plan

The Rights Plan may be amended to correct any clerical or typographical error or to make such changes as are required to maintain the validity of the Rights Plan as a result of any change in any applicable legislation, regulations or rules thereunder, without the approval of the holders of the Common Shares or rights. Prior to the Separation Time, we may, with the prior consent of the holders of Common Shares, amend, vary or delete any of the provisions of the Rights Plan in order to effect any changes which the Board, acting in good faith, considers necessary or desirable. We may, with the prior consent of the holders of rights, at any time after the Separation Time and before the Expiration Time, amend, vary or delete any of the provisions of the Rights Plan.



#### Protection Against Dilution

The Exercise Price, the number and nature of securities which may be purchased upon the exercise of rights and the number of rights outstanding are subject to adjustment from time to time to prevent dilution in the event of stock dividends, subdivisions, consolidations, reclassifications or other changes in the outstanding Common Shares, pro rata distributions to holders of Common Shares and other circumstances where adjustments are required to appropriately protect the interests of the holders of rights.

#### Fiduciary Duty of Board

The Rights Plan will not detract from or lessen the duty of the Board to act honestly and in good faith with a view to our best interests and the best interests of our shareholders. The Board will continue to have the duty and power to take such actions and make such recommendations to our shareholders as are considered appropriate.

#### Exemptions for Investment Advisors

Fund managers, investment advisors (for fully-managed accounts), trust companies (acting in their capacities as trustees and administrators), statutory bodies whose business includes the management of funds, and administrators of registered pension plans are exempt from triggering a Flip-in Event, provided that they are not making, or are not part of a group making, a take-over bid.

#### Term

The Rights Plan will expire (the "Expiration Time") on the earlier of the first annual meeting of our shareholders following March 29, 2016, being the sixth anniversary of the Effective Date and the time at which the right to exercise rights shall terminate pursuant to the provisions of the Rights Plan pertaining to the redemption of rights and the waiver of the application of the Rights Plan, after which time it will automatically terminate.

#### Action Necessary to Change Rights of Shareholders

In order to change the rights of our shareholders, we would need to amend our Articles to effect the change. Such an amendment would require the approval of holders of two-thirds of the issued and outstanding shares cast at a duly called special meeting. For certain amendments, a shareholder is entitled under the CBCA to dissent in respect of such a resolution amending the Articles and, if the resolution is adopted and we implement such changes, demand payment of the fair value of its shares.

#### Disclosure of Share Ownership

In general, under applicable securities regulation in Canada, a person or company who beneficially owns, or who directly or indirectly exercises control or direction over voting securities of a reporting issuer, voting securities of an issuer or a combination of both, carrying more than ten percent of the voting rights attached to all the issuer's outstanding voting securities is an insider and must, within ten days of becoming an insider, file a report in the required form effective the date on which the person became an insider, disclosing any direct or indirect beneficial ownership of, or control or direction over, securities of the reporting issuer.

Additionally, securities regulation in Canada provides for the filing of a report by an insider of a reporting issuer whose holdings change, which report must be filed within five days from the day on which the change takes place. Section 13 of the United States Securities Exchange Act of 1934 (the "Exchange Act") imposes reporting requirements on persons who acquire beneficial ownership (as such term is defined in the Rule 13d-3 under the Exchange Act) of more than five percent of a class of an equity security registered under Section 12 of the Exchange Act. Our Common Shares are so registered. In general, such persons must file, within ten days after such acquisition, a report of beneficial ownership with the SEC containing the information prescribed by the regulations under Section 13 of the Exchange Act. This information is also required to be sent to the issuer of the securities and to each exchange where the securities are traded.

#### Meeting of Shareholders

An annual meeting of shareholders is held each year for the purpose of considering the financial statements and reports, electing directors, appointing auditors and fixing or authorizing the Board to fix their remuneration and for the transaction of other business as may properly come before a meeting of shareholders. Any annual meeting may also constitute a special meeting to take cognizance and dispose of any matter of which a special meeting may take cognizance and dispose. Under the bylaws, our Chief Executive Officer or our President has the power to call a meeting of shareholders.



The CBCA provides that the holders of not less than 5% of our outstanding voting shares may requisition our directors to call a meeting of shareholders for the purpose stated in the requisition. Except in limited circumstances, including where a meeting of shareholders has already been called and a notice of meeting already given or where it is clear that the primary purpose of the requisition is to redress a personal grievance against us or our directors, officers or shareholders, our directors, on receipt of such requisition, must call a meeting of shareholders. If the directors fail to call a meeting of shareholders within twenty-one days after receiving the requisition, any shareholder who signed the requisition may call the meeting of shareholders and, unless the shareholders resolve otherwise at the meeting, we shall reimburse the shareholders for the expenses reasonably incurred by them in requisitioning, calling and holding the meeting of shareholders.

The CBCA also provides that, except in limited circumstances, a resolution in writing signed by all of the shareholders entitled to vote on that resolution at a meeting of shareholders is as valid as if it had been passed at a meeting of shareholders.

A quorum of shareholders is present at an annual or special meeting of shareholders, regardless of the number of persons present in person at the meeting, if the holder(s) of shares representing at least 10% of the outstanding voting shares at such meeting are present in person or represented in accordance with our bylaws. In the case where the CBCA, our Articles or our bylaws require or permit the vote by class of holders of a given class of shares of our share capital, the quorum at any meeting will be one or more persons representing 10% of the outstanding shares of such class.

Notice of the time and place of each annual or special meeting of shareholders must be given not less than 21 days, nor more than 50 days, before the date of each meeting to each director, to the auditor and to each shareholder entitled to vote thereat. If the address of any shareholder, director or auditor does not appear in our books, the notice may be sent to such address as the person sending the notice may consider to be most likely to reach such shareholder, director or auditor promptly. Every person who, by operation of the CBCA, transfers or by any other means whatsoever, becomes entitled to any share, shall be bound by every notice given in respect of such share which, prior to the entry of his or her name and address on our register, is given to the person whose name appears on the register at the time such notice is sent. Notice of meeting of shareholders called for any other purpose other than consideration of the financial statements and auditor's report, election of directors and reappointment of the incumbent auditor, must state the nature of the business in sufficient detail to permit the shareholder to form a reasoned judgment on and must state the text of any special resolution or bylaw to be submitted to the meeting.

On March 21, 2013, the Board of Directors approved an amendment to our bylaws in order to include an advance notice provision (the "Advance Notice Requirement") and concurrently approved an amendment to and restatement of our bylaws giving effect to the Advance Notice Requirement (the "Amended and Restated Bylaws"). The Amended and Restated Bylaws giving effect to the Advance Notice Requirement were subsequently ratified and approved by our shareholders on May 8, 2013. The Advance Notice Requirement applies in certain circumstances where nominations of persons for election to the Board of Directors are made by our shareholders other than pursuant to: (a) a requisition of a meeting made pursuant to the provisions of the CBCA; or (b) a shareholder proposal made pursuant to the provisions of the CBCA.

Among other things, the Advance Notice Requirement fixes a deadline by which shareholders must submit a notice of director nominations to us prior to any annual or special meeting of shareholders where directors are to be elected and sets forth the information that a shareholder must include in the notice for it to be valid. In the case of an annual meeting of shareholders, we must be given not less than 30 nor more than 65 days' notice prior to the date of the annual meeting; provided, however, that in the event that the annual meeting is to be held on a date that is less than 50 days after the date on which the first public announcement of the date of the annual meeting was made, notice may be made not later than the close of business on the 10<sup>th</sup> day following such public announcement. In the case of a special meeting of shareholders (which is not also an annual meeting), we must be given notice not later than the close of business on the 15<sup>th</sup> day following the day on which the first public announcement of the date of the special meeting was made.

The Board of Directors may, in its sole discretion, waive any requirement of the Advance Notice Requirement.

Limitations on Right to Own Securities

Neither Canadian law nor our Restated Articles of Incorporation or bylaws limit the right of a non-resident to hold or vote Common Shares, other than as provided in the Investment Canada Act (the "Investment Act"). The Investment Act prohibits implementation of certain direct reviewable investments by an individual, government or agency thereof, corporation, partnership, trust or joint venture that is not a "Canadian", as defined in the Investment Act (a "non-Canadian"), unless, after review, the minister responsible for the Investment Act is satisfied or is deemed to be satisfied that the investment is likely to be of net benefit to Canada. An investment in our Common Shares by a non-Canadian (other than a "WTO Investor", as defined below) would be reviewable under the Investment Act if it were an investment to acquire direct control of us, and the book value of our assets were CAN\$5 million or more (provided that immediately prior to the implementation of the investment we were not controlled by WTO Investors). Subject to the Amendments (as defined below), an investment in our Common Shares by a WTO Investor would be reviewable under the Investment Act if it were an investment to acquire direct control of us and

the value of our assets equalled or exceeded CAN\$369 million (for 2015). A non-Canadian, whether a WTO Investor or otherwise, would be deemed to acquire control of us for purposes of the Investment Act if he or she acquired a majority of our Common Shares. The acquisition of less than a majority, but at least one-third of the shares, would be presumed to be an acquisition of control of us, unless it could be established that we were not controlled in fact by the acquirer through the ownership of the shares. In general, an individual is a WTO Investor if he or she is a "national" of a country (other than Canada) that is a member of the World Trade Organization ("WTO Member") or has a right of permanent residence in a WTO Member. A corporation or other entity will be a "WTO Investor" if it is a "WTO Investor-controlled entity", pursuant to detailed rules set out in the Investment Act. The United States is a WTO Member. Certain transactions involving the Common Shares would be exempt from the Investment Act, including: (a) an acquisition of the shares if the acquisition were made in the ordinary course of that person's business as a trader or dealer in securities; (b) an acquisition of control of us in connection with the realization of a security interest granted for a loan or other financial assistance and not for any purpose related to the provisions of the Investment Act; and (c) an acquisition of control of us by reason of an amalgamation, merger, consolidation or corporate reorganization, following which the ultimate direct or indirect control in fact of us, through the ownership of voting interests, remains unchanged.

The Canadian Federal Government adopted certain amendments (the "Amendments") to the Investment Act in 2009. Some of the Amendments, which came into force on February 6, 2009, introduce a national security test and review process, authorizing the Canadian Minister of Industry to review investments that "could be injurious to national security", regardless of the size of the transaction. Some of the other Amendments will come into force on a day to be fixed by order of the Canadian Governor in Council, including the increase to the thresholds that trigger governmental review for WTO Investors. Therefore, the thresholds for the review of direct acquisitions of control by WTO Investors would increase from the current CAN\$369 million (based on book value) to CAN\$600 million (to be based on the "enterprise value" of the Canadian business) for the two years after such Amendments come into force, to CAN\$800 million in the following two years and then to CAN\$1 billion for the next two years. Thereafter, the thresholds are to be adjusted to account for inflation. A number of the Amendments still require additional definition and details, which will be set forth in regulations promulgated under the Investment Act.

There are no limits on the rights of non-Canadians to exercise voting rights on their Common Shares.

#### C. Material contracts

Other than as disclosed herein under "Shareholder Rights Plan" and below, and except for contracts entered into in the ordinary course of business, there are no material contracts to which we or any of our subsidiaries is a party.

#### Employment Agreements

We have, or one of our subsidiaries has, entered into an employment agreement or a service contract (collectively, the "Employment Agreements") with Messrs. Dodd, Turpin, Dinges, Santorelli and Dr. Sachse. The Employment Agreements provide that the Company will pay the executive a base salary and an annual bonus, if our economic results justify payment of a bonus and subject to the determination and approval of the Governance Committee and our Board, and that such executives will be eligible to receive long-term incentive grants in the form of stock options, which will be reviewed annually in accordance with our policies. The Employment Agreements have an indefinite term; provided, however, Dr. Sachse's Employment Agreement will end without the need to give notice not later than the expiry of the month during which Dr. Sachse attains the minimum age of legal retirement in Germany.

The Employment Agreements of Messrs. Dodd, Turpin, Dinges and Santorelli provide that if we terminate their employment without "Cause" (or, in the case of Messrs. Dodd and Dinges, there is a "separation from service" within the meaning of §409A of the U.S. Internal Revenue Code of 1986, as amended (a "Separation from Service") or a resignation for "Good Reason"), then the executive will be entitled to receive, in the case of Mr. Dodd, a lump-sum payment (less applicable tax withholdings) in an amount equal to twice the sum of his then base salary, his then annual bonus, the amount of his then car allowance, plus any earned retention bonus and eighteen months of the value of the other benefits to which he is entitled (through the purchase by us of eighteen months of the coverage required under the Consolidated Omnibus Budget Reconciliation Act of 1986 ("COBRA")). In the case of Mr. Turpin, the lump-sum payment will be equivalent to eighteen months of his then applicable base salary, 1.5 times the annual bonus of the preceding year and eighteen months of the value of the other benefits to which he is entitled. In the case

of Messrs. Dinges and Santorelli, the executive is entitled to receive a lump-sum payment (less applicable tax withholdings) in an amount equal to one times the sum of his then base salary, his then annual bonus, pro-rated as applicable, any earned retention bonus, if applicable, the amount of his then car allowance, if applicable, and eighteen months of the value of the other benefits to which he is entitled (through our purchase of eighteen months of the coverage required under COBRA). In addition, in the case of Messrs. Dodd, Dinges and Santorelli, if the executive has a Separation of Service, then the executive's right to exercise all then outstanding stock options granted to him shall fully and immediately vest on the effective date of the Separation from Service.

Dr. Sachse's Employment Agreement provides that we are entitled to terminate his agreement without cause by giving him six months' prior notice effective to the end of any calendar month. During the six-month notice period, Dr. Sachse is entitled only to his salary and he has no right to receive a cash bonus or any other form of remuneration. Furthermore, each of Messrs. Dodd, Turpin and Dinges shall not, for a period equal to one year following such executive's termination of employment with us, directly or indirectly, compete with us; solicit any of our clients or do anything whatsoever to induce or to lead any person to end, in whole or in part, its business relations with us; induce, attempt to induce or otherwise interfere in the relations which we have with our distributors, suppliers, representatives, agents and other parties with whom we deal; or induce, attempt to induce or otherwise solicit our personnel to leave their employment with us or hire our personnel for any enterprise in which the executive has an interest.

Dr. Sachse's Employment Agreement also contains a non-competition provision. Dr. Sachse is prohibited from competing with us, or any of our subsidiaries, during the term of his Employment Agreement and for a period of one year following the date of termination of his Employment Agreement. The non-competition provision prohibits Dr. Sachse from participating in any capacity whatsoever, and from having any interest whatsoever, in a business that would directly or indirectly compete with us, or with any of our subsidiaries, including a business involved in the development and commercialization of the specific endocrine therapies and oncology treatments that we, or any of our subsidiaries, are actively developing. The territory covered by Dr. Sachse's non-competition provision is the geographical areas in which a specific product had been actively exploited by us or one of our subsidiaries during the two years preceding the date of termination of his employment. The non-competition provision prohibits Dr. Sachse from performing duties for the competing business that are identical or substantially similar to those duties he performed or carried on for us during the 24 months preceding the termination of his Employment Agreement. If Dr. Sachse is unable to find a new employment because of the existence of the non-competition provision, we will pay him his base salary during a period ending on the first to occur of (i) the date on which he starts a new employment and (ii) the date on which the non-competition provision expires.

Pursuant to his Employment Agreement, Mr. Dodd is also entitled to receive certain payments (the "Change of Control Payments") in the event (i) a "Change of Control" occurs, and (ii) during the twelve-month period following the Change of Control, either we terminate his employment without "Cause" (or there is a Separation from Service), or he terminates his employment for "Good Reason" during such period. The Change of Control Payment will equal the sum of the following amounts: (i) the equivalent of thirty-six months of his then annual base salary, (ii) an amount equivalent to twice the annual bonus, if any, which he would have been entitled to receive in the year during which the Change of Control occurred, (iii) any earned retention bonus, and (iv) an amount equivalent to 12 months of the then annual cost to provide the other benefits to which he is entitled, or the cost to purchase coverage by the Company under COBRA for such benefits, whichever is applicable. The Change of Control Payment is subject to applicable statutory withholdings. Any outstanding stock options held by Mr. Dodd shall, in such circumstances, fully and immediately vest on the date of his Separation from Service.

For the purposes of the applicable Employment Agreements (including the annexes and schedules thereto):

a "Change of Control" shall be deemed to have occurred in any of the following circumstances: (i) subject to certain exceptions, upon the acquisition by a person (or one or more persons who are affiliates of one another or who are acting jointly or in concert) of a beneficial interest in our securities representing in any circumstance 50% or more of the voting rights attaching to our then outstanding securities; (ii) upon a sale or other disposition of all or substantially all of our assets; (iii) upon a plan of liquidation or dissolution of us; or (iv) if, for any reason, including our amalgamation, merger or consolidation with or into another company, the individuals who, as at the date of the relevant Employment Agreement, constituted the Board (and any new directors whose appointment by the Board or whose nomination for election by our shareholders was approved by a vote of at least two-thirds of the directors then still in office who either were directors as at the date of the relevant Employment Agreement or whose appointment or nomination for election was previously so approved) cease to constitute a majority of the members of the Board; termination of employment for "Cause" includes (but is not limited to) (i) if the executive commits any fraud, theft, embezzlement or other criminal act of a similar nature, and (ii) if the executive is guilty of serious misconduct or willful negligence in the performance of his duties; and

termination of employment by the executive officer for "Good Reason" means,

in the case of Mr. Dodd, the occurrence, without his express written consent, of any of the following acts: (i) a material reduction of his total compensation (including annual base salary plus annual bonus, benefits and number of stock options) as in effect on the date of his Employment Agreement or as same may be increased from time to time, provided such reduction is not warranted and due to our performance; (ii) any change in his direct reporting relationship to the Board; (iii) any reduction in his duties and responsibilities as our President and Chief Executive Officer; or (iv) a physical change of one hundred miles or more in his principal place of business;

in the case of Mr. Turpin, the occurrence, without his express written consent, of any of the following acts: (i) a material reduction of his total compensation (including annual base salary plus annual bonus, benefits and number of stock options) as in effect on the date of his Employment Agreement or as same may be increased from time to time; (ii) a material reduction or change in his duties, authority, responsibilities, accountability or a change in our business or corporate structure which materially affects his authority, compensation or ability to perform duties or responsibilities (such as shifting from a policy-making to a policy-implementation position); (iii) a forced relocation; or (iv) a material change in the terms and conditions of the change of control provisions included in his Employment Agreement that are not otherwise contemplated by his Employment Agreement; and

in the case of Mr. Dinges, the occurrence, without his express written consent, of any of the following acts: (i) a more than 25% reduction of his base annual salary as in effect on the date of his Employment Agreement or as the same may be increased from time to time, provided such reduction is not warranted and due to either our performance or failure of Mr. Dinges to achieve performance standards or objectives as determined by our President in his sole and absolute discretion and judgment; or (ii) a material reduction in his duties and responsibilities as our Chief Commercial Officer.

#### D. Exchange controls

Canada has no system of exchange controls. There are no exchange restrictions on borrowing from foreign countries or on the remittance of dividends, interest, royalties and similar payments, management fees, loan repayments, settlement of trade debts or the repatriation of capital.

#### E. Taxation

THE FOLLOWING SUMMARY IS OF A GENERAL NATURE ONLY AND IS NOT INTENDED TO BE, NOR SHOULD IT BE CONSTRUED TO BE, LEGAL OR TAX ADVICE TO ANY PARTICULAR HOLDER. CONSEQUENTLY, HOLDERS ARE URGED TO CONSULT THEIR OWN TAX ADVISORS FOR ADVICE AS TO THE TAX CONSEQUENCES OF AN INVESTMENT IN THE COMMON SHARES HAVING REGARD TO THEIR PARTICULAR CIRCUMSTANCES.

##### Material Canadian Income Tax Considerations

The following summary describes the principal Canadian federal income tax considerations to a holder who acquires Common Shares (a "holder") and who, for the purposes of the Canadian federal Income Tax Act, R.S.C. 1985, as amended (the "Tax Act"), and at all relevant times, deals at arm's length with, and is not affiliated with, the Company and holds their Common Shares as capital property. Common Shares will generally be considered to be capital property to a holder for purposes of the Tax Act unless either the holder holds such Common Shares in the course of carrying on a business of trading or dealing in securities, or the holder has held or acquired such Common Shares in a transaction or transactions considered to be an adventure in the nature of trade.

This summary is not applicable to a holder (i) that is a "financial institution", as defined in the Tax Act for purposes of the mark-to-market rules, (ii) that is a "specified financial institution", as defined in the Tax Act, (iii) an interest in which would be a "tax shelter investment" as defined in the Tax Act, (iv) that has made a functional currency reporting election for purposes of the Tax Act or (v) that has entered into a "derivative forward agreement", as defined in the Tax Act, in respect of Common Shares. Such holders should consult their own tax advisors.

Additional considerations, not discussed herein, may be applicable to a holder that is a corporation resident in Canada, and is, or becomes, controlled by a non-resident corporation for the purposes of the "foreign affiliate dumping" rules in section 212.3 of the Tax Act. Such holders should consult their tax advisors with respect to the consequences of acquiring Common Shares.

This summary is based upon the current provisions of the Tax Act and the regulations promulgated thereunder (the "Regulations") and the Company's understanding of the current published administrative policies and assessing practices of the Canada Revenue Agency ("CRA"). It also takes into account all proposed amendments to the Tax Act and the Regulations publicly released by the Minister of Finance (Canada) prior to the date hereof ("Tax Proposals"), and assumes that all such Tax Proposals will be enacted as currently proposed. No assurance can be given that the Tax Proposals will be enacted in the form proposed or at all. This summary does not otherwise take into account or anticipate any changes in law or administrative or assessing practice or policy of the CRA, whether by legislative, regulatory, judicial or administrative action or interpretation, nor does it address any provincial, local, territorial or

foreign tax considerations.

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#### Holders Not Resident in Canada

The following discussion applies to a holder of Common Shares who, at all relevant times, for purposes of the Tax Act, is neither resident nor deemed to be resident in Canada and does not, and is not deemed to, use or hold Common Shares in carrying on a business or part of a business in Canada (a "Non-Resident holder"). In addition, this discussion does not apply to an insurer who carries on an insurance business in Canada and elsewhere or to an "authorized foreign bank" (as defined in the Tax Act).

#### Disposition of Common Shares

A Non-Resident holder generally will not be subject to tax under the Tax Act in respect of any capital gain realized by such Non-Resident holder on a disposition or deemed disposition of Common Shares unless such shares constitute "taxable Canadian property" (as defined in the Tax Act) of the Non-Resident holder at the time of disposition and the gain is not exempt from tax pursuant to the terms of an applicable income tax treaty or convention.

As long as the Common Shares are listed on a designated stock exchange (which currently includes NASDAQ and the TSX) at the time of their disposition, the Common Shares generally will not constitute taxable Canadian property of a Non-Resident holder, unless (a) at any time during the 60-month period immediately preceding the disposition (i) one or any combination of (A) the Non-Resident holder, (B) persons with whom the Non-Resident holder did not deal at arm's length, and (C) partnerships in which the Non-Resident holder or a person described in (B) holds a membership interest directly or indirectly through one or more partnerships, owned 25% or more of the issued shares of any class or series of shares of the corporation; and (ii) more than 50% of the fair market value of the shares of the corporation was derived directly or indirectly from one or any combination of real or immovable property situated in Canada, "Canadian resource properties" (as defined in the Tax Act), "timber resource properties" (as defined in the Tax Act) or options in respect of, or interests in, or for civil law rights in, any such property whether or not such property exists or (b) our Common Shares are otherwise deemed to be taxable Canadian property to the Non-Resident holder.

A Non-Resident holder's capital gain (or capital loss) in respect of Common Shares that constitute or are deemed to constitute taxable Canadian property (and are not "treaty-protected property" as defined in the Tax Act) will generally be computed in the manner described below under the heading "Holders Resident in Canada - Disposition of Common Shares".

If the Common Shares were to cease being listed on NASDAQ, the TSX or another "recognized stock exchange" (as defined in the Tax Act), a Non-Resident holder who disposes of Common Shares that are taxable Canadian property may be required to fulfill the requirements of section 116 of the Tax Act, unless the Common Shares are "treaty-protected property" (as defined in the Tax Act) of the disposing Non-Resident holder.

Non-Resident holders whose Common Shares are taxable Canadian property should consult their own tax advisors.

#### Taxation of Dividends on Common Shares

Dividends paid or credited or deemed to be paid or credited to a Non-Resident holder by the corporation are subject to Canadian withholding tax at the rate of 25% unless reduced by the terms of an applicable tax treaty or convention.

Under the Canada - United States Tax Convention (1980) (the "Convention") as amended, the rate of withholding tax on dividends paid or credited to a Non-Resident holder who is the beneficial owner of the dividends, is resident in the U.S. for purposes of the Convention and entitled to the benefits of the Convention (a "U.S. holder") is generally limited to 15% of the gross amount of the dividend (or 5% in the case of a U.S. holder that is a company beneficially owning at least 10% of the corporation's voting shares). Non-Resident holders should consult their own tax advisors.

#### Holders Resident in Canada

The following discussion applies to a holder of Common Shares who, at all relevant times, for purposes of the Tax Act, is or is deemed to be resident in Canada (a "Canadian holder"). Certain Canadian holders whose Common Shares might not otherwise qualify as capital property may, in certain circumstances, treat the Common Shares and every other "Canadian security" (as defined in the Tax Act) owned by the Canadian holder as capital property by making an irrevocable election provided by subsection 39(4) of the Tax Act.

#### Taxation of Dividends on Common Shares

Dividends received or deemed to have been received on the Common Shares will be included in a Canadian holder's income for purposes of the Tax Act. Such dividends received or deemed to have been received by a Canadian holder that is an individual (other than certain trusts) will be subject to the gross-up and dividend tax credit rules generally applicable under the Tax Act in respect of dividends received on shares of taxable Canadian corporations. Generally, a dividend will be eligible for the enhanced gross-up and dividend tax credit if the corporation designates the dividend as an "eligible dividend" (within the meaning of the Tax Act) in accordance with the provisions of the Tax Act. There may be limitations on the ability of the Company to designate dividends as eligible dividends. A Canadian holder that is a corporation will be required to include such dividends in computing its income and will generally be entitled to deduct the amount of such dividends in computing its taxable income. A Canadian holder that is a "private corporation" or a "subject corporation" (as such terms are defined in the Tax Act), may be liable under Part IV of the Tax Act to pay a refundable tax of 33 1/3% on dividends received or deemed to have been received on the Common Shares to the extent such dividends are deductible in computing the holder's taxable income.

#### Disposition of Common Shares

A disposition, or a deemed disposition, of a Common Share by a Canadian holder will generally give rise to a capital gain (or a capital loss) equal to the amount by which the proceeds of disposition of the share, net of any reasonable costs of disposition, exceed (or are less than) the adjusted cost base of the share to the holder. Such capital gain (or capital loss) will be subject to the treatment described below under "Taxation of Capital Gains and Capital Losses".

#### Additional Refundable Tax

A Canadian holder that is a "Canadian-controlled private corporation" (as such term is defined in the Tax Act) may be liable to pay an additional refundable tax of 6 2/3% on certain investment income including amounts in respect of "Taxable Capital Gains", as defined below.

#### Taxation of Capital Gains and Capital Losses

In general, one half of any capital gain (a "Taxable Capital Gain") realized by a Canadian holder in a taxation year will be included in the holder's income in the year. Subject to and in accordance with the provisions of the Tax Act, one half of any capital loss (an "Allowable Capital Loss") realized by a Canadian holder in a taxation year must be deducted from Taxable Capital Gains realized by the holder in the year and Allowable Capital Losses in excess of Taxable Capital Gains may be carried back and deducted in any of the three preceding taxation years or carried forward and deducted in any subsequent taxation year against net Taxable Capital Gains realized in such years. The amount of any capital loss realized by a Canadian holder that is a corporation on the disposition or deemed disposition of a Common Share may be reduced by the amount of dividends received or deemed to have been received by it on such Common Share (or on a share for which the Common Share has been substituted) to the extent and under the circumstances prescribed by the Tax Act. Similar rules may apply where a corporation is a member of a partnership or a beneficiary of a trust that owns Common Shares, directly or indirectly, through a partnership or a trust.

#### Alternative Minimum Tax

A Taxable Capital Gain realized and taxable dividends received or deemed to have been received by a Canadian holder who is an individual (including a trust, other than certain specified trusts) may give rise to liability for alternative minimum tax.

#### Certain Material U.S. Federal Income Tax Considerations

The following discussion is a summary of certain material U.S. federal income tax consequences applicable to the ownership and disposition of Common Shares by a U.S. Holder (as defined below), but does not purport to be a complete analysis of all potential U.S. federal income tax effects. This summary is based on the Internal Revenue Code of 1986, as amended (the "Code"), U.S. Treasury regulations promulgated thereunder, IRS rulings and judicial decisions in effect on the date hereof. All of these are subject to change, possibly with retroactive effect, or different interpretations. This summary does not discuss the potential effects, whether adverse or beneficial, of any proposed legislation that, if enacted, could be applied on a retroactive basis. 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.



This summary does not address all aspects of U.S. federal income taxation that may be relevant to particular U.S. Holders in light of their specific circumstances (for example, U.S. Holders subject to the alternative minimum tax or the Medicare contribution tax on net investment income under the Code) or to holders that may be subject to special rules under U.S. federal income tax law, including:

- dealers in stocks, securities or currencies;
- securities traders that use a mark-to-market accounting method;
- banks and financial institutions;
- insurance companies;
- regulated investment companies;
- real estate investment trusts;
- tax-exempt organizations;
- retirement plans, individual plans, individual retirement accounts and tax-deferred accounts;
- partnerships or other pass-through entities for U.S. federal income tax purposes and their partners or members;
- persons holding Common Shares as part of a hedging or conversion transaction straddle or other integrated or risk reduction transaction;
- persons who or that are, or may become, subject to the expatriation provisions of the Code;
- persons whose functional currency is not the U.S. dollar; and
- direct, indirect or constructive owners of 10% or more of the total combined voting power of all classes of our voting stock.

This summary also does not address the tax consequences of holding, exercising or disposing of warrants in the Company. If the Company is a PFIC, as described below, U.S. Holders of its warrants will be subject to adverse tax rules and will not be able to make the mark-to-market or the QEF election described below with respect to such warrants. U.S. Holders of warrants should consult their tax advisors with regard to the U.S. federal income tax consequences of holding, exercising or disposing of warrants in the Company, including in the situation in which the Company is classified as a PFIC.

This summary also does not discuss any aspect of state, local or foreign law, or estate or gift tax law as applicable to U.S. Holders. In addition, this discussion is limited to U.S. Holders holding Common Shares as capital assets. For purposes of this summary, "U.S. Holder" means a beneficial holder of Common Shares who or that for U.S. federal income tax purposes is:

- an individual citizen or resident of the United States;
- a corporation or other entity classified as a corporation for U.S. federal income tax purposes created or organized in or under the laws of the United States, any state thereof or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income taxation regardless of its source; or
- a trust, if (a) a court within the United States is able to exercise primary supervision over the administration of such trust and one or more "U.S. persons" (within the meaning of the Code) have the authority to control all substantial decisions of the trust, or (b) a valid election is in effect to be treated as a U.S. person for U.S. federal income tax purposes.

If a partnership or other entity or arrangement classified as a partnership for U.S. federal income tax purposes holds Common Shares, the U.S. federal income tax treatment of a partner generally will depend on the status of the partner and the activities of the partnership. This summary does not address the tax consequences to any such partner. Such a partner should consult its own tax advisor as to the tax consequences of the partnership owning and disposing of Common Shares.

**U.S. HOLDERS SHOULD CONSULT THEIR OWN TAX ADVISORS WITH REGARD TO THE APPLICATION OF THE TAX CONSEQUENCES DESCRIBED BELOW TO THEIR PARTICULAR SITUATIONS AS WELL AS THE APPLICATION OF ANY STATE, LOCAL, FOREIGN OR OTHER TAX LAWS, INCLUDING GIFT AND ESTATE TAX LAWS.**

## Dividends

Subject to the PFIC rules discussed below, any distributions paid by the Company out of current or accumulated earnings and profits (as determined for U.S. federal income tax purposes), before reduction for any Canadian withholding tax paid with respect thereto, will generally be taxable to a U.S. Holder as foreign source dividend income, and will not be eligible for the dividends received deduction generally allowed to corporations. Distributions in excess of current and accumulated earnings and profits will be treated as a non-taxable return of capital to the extent of the U.S. Holder's adjusted tax basis in the Common Shares and thereafter as capital gain. U.S. Holders should consult their own tax advisors with respect to the appropriate U.S. federal income tax treatment of any distribution received from the Company.

Dividends paid by the Company should be taxable to a non-corporate U.S. Holder at the special reduced rates normally applicable to long-term capital gains, provided that certain conditions are satisfied. A U.S. Holder will not be able to claim a reduced rate if the Company is treated as a PFIC for the taxable year in which the dividend is paid or the preceding year. See "Passive Foreign Investment Company Considerations" below.

Under current law, payments of dividends by the Company to non-Canadian investors are generally subject to a 25% Canadian withholding tax. The rate of withholding tax applicable to U.S. Holders that are eligible for benefits under the Canada-United States Tax Convention (the "Convention") is reduced to a maximum of 15%. This reduced rate of withholding will not apply if the dividends received by a U.S. Holder are effectively connected with a permanent establishment of the U.S. Holder in Canada. For U.S. federal income tax purposes, U.S. Holders will be treated as having received the amount of Canadian taxes withheld by the Company, and as then having paid over the withheld taxes to the Canadian taxing authorities. As a result of this rule, the amount of dividend income included in gross income for U.S. federal income tax purposes by a U.S. Holder with respect to a payment of dividends may be greater than the amount of cash actually received (or receivable) by the U.S. Holder from the Company with respect to the payment.

Subject to certain limitations, a U.S. Holder will generally be entitled, at the election of the U.S. Holder, to a credit against its U.S. federal income tax liability, or a deduction in computing its U.S. federal taxable income, for Canadian income taxes withheld by the Company. This election is made on a year-by-year basis and applies to all foreign taxes paid (whether directly or through withholding) by a U.S. Holder during a year. For purposes of the foreign tax credit limitation, dividends paid by the Company generally will constitute foreign source income in the "passive category income" basket. The foreign tax credit rules are complex and U.S. Holders should consult their tax advisors concerning the availability of the foreign tax credit in their particular circumstances.

Dividends paid in Canadian dollars will be included in the gross income of a U.S. Holder in a U.S. dollar amount calculated by reference to the exchange rate in effect on the date the U.S. Holder (actually or constructively) receives the dividend, regardless of whether such Canadian dollars are actually converted into U.S. dollars at that time. If the Canadian dollars received are not converted into U.S. dollars on the date of receipt, a U.S. Holder will have a tax basis in the Canadian dollars equal to their U.S. dollar value on the date of receipt. Gain or loss, if any, realized on a sale or other disposition of the Canadian dollars will generally be U.S. source ordinary income or loss to a U.S. Holder. The Company generally does not pay any dividends and does not anticipate paying any dividends in the foreseeable future.

## Sale, Exchange or Other Taxable Disposition of Common Shares

Subject to the PFIC rules discussed below, upon a sale, exchange or other taxable disposition of Common Shares, a U.S. Holder generally will recognize capital gain or loss for U.S. federal income tax purposes equal to the difference, if any, between the amount realized on the sale, exchange or other taxable disposition and the U.S. Holder's adjusted tax basis in the Common Shares.

This capital gain or loss will be long-term capital gain or loss if the U.S. Holder's holding period in the Common Shares exceeds one year. The deductibility of capital losses is subject to limitations. Any gain or loss will generally be U.S. source for U.S. foreign tax credit purposes.

## Passive Foreign Investment Company Considerations

A foreign corporation will be classified as a PFIC for any taxable year in which, after taking into account the income and assets of the corporation and certain subsidiaries pursuant to applicable "look-through rules", either (i) at least

75% of its gross income is "passive income" or (ii) at least 50% of the average value of its assets is attributable to assets which produce passive income or are held for the production of passive income. Passive income generally includes dividends, interest, rents and royalties (other than certain rents and royalties derived in the active conduct of a trade or business), annuities and gains from assets that produce passive income. If a non-U.S. corporation owns at least 25% by value of the stock of another corporation,

the non-U.S. corporation is treated for purposes of the PFIC tests as owning its proportionate share of the assets of the other corporation and as receiving directly its proportionate share of the other corporation's income.

The Company believes it was not a PFIC for the 2014 taxable year. However, the fair market value of the Company's assets may be determined in large part by the market price of the Common Shares, which is likely to fluctuate, and the composition of the Company's income and assets will be affected by how, and how quickly, the Company spends any cash that is raised in any financing transaction. Thus, no assurance can be provided that the Company will not be classified as a PFIC for the 2015 taxable year and for any future taxable year. U.S. Holders should consult their tax advisors regarding the Company's PFIC status.

If the Company is classified as a PFIC for any taxable year during which a U.S. Holder owns Common Shares, the U.S. Holder, absent certain elections (including the mark-to-market and QEF elections described below), will generally be subject to adverse rules (regardless of whether the Company continues to be classified as a PFIC) with respect to (i) any "excess distributions" (generally, any distributions received by the U.S. Holder on the Common Shares in a taxable year that are greater than 125% of the average annual distributions received by the U.S. Holder in the three preceding taxable years or, if shorter, the U.S. Holder's holding period for the Common Shares) and (ii) any gain realized on the sale or other disposition of the Common Shares.

Under these adverse rules (a) the excess distribution or gain will be allocated ratably over the U.S. Holder's holding period, (b) the amount allocated to the current taxable year and any taxable year prior to the first taxable year in which the Company is classified as a PFIC will be taxed as ordinary income, and (c) the amount allocated to each of the other taxable years during which the Company was classified as a PFIC will be subject to tax at the highest rate of tax in effect for the applicable category of taxpayer for that year and an interest charge will be imposed with respect to the resulting tax attributable to each such other taxable year. A U.S. Holder that is not a corporation will be required to treat any such interest paid as "personal interest", which is not deductible.

U.S. Holders can avoid the adverse rules described above in part by making a mark-to-market election with respect to the Common Shares, provided that the Common Shares are "marketable". The Common Shares will be marketable if they are "regularly traded" on a "qualified exchange" or other market within the meaning of applicable U.S. Treasury regulations. For this purpose, the Common Shares generally will be considered to be regularly traded during any calendar year during which they are traded, other than in de minimis quantities, on at least 15 days during each calendar quarter. The Common Shares are currently listed on NASDAQ, which constitutes a qualified exchange; however, there can be no assurance that the Common Shares will be treated as regularly traded for purposes of the mark-to-market election on a qualified exchange. If the Common Shares were not regularly traded on NASDAQ or were delisted from NASDAQ and were not traded on another qualified exchange for the requisite time period described above, the mark-to-market election would not be available.

A U.S. Holder that makes a mark-to-market election must include in gross income, as ordinary income, for each taxable year an amount equal to the excess, if any, of the fair market value of the U.S. Holder's Common Shares at the close of the taxable year over the U.S. Holder's adjusted tax basis in the Common Shares. An electing U.S. Holder may also claim an ordinary loss deduction for the excess, if any, of the U.S. Holder's adjusted tax basis in the Common Shares over the fair market value of the Common Shares at the close of the taxable year, but this deduction is allowable only to the extent of any net mark-to-market gains previously included in income. A U.S. Holder that makes a mark-to-market election generally will adjust such U.S. Holder's tax basis in the Common Shares to reflect the amount included in gross income or allowed as a deduction because of such mark-to-market election. Gains from an actual sale or other disposition of the Common Shares will be treated as ordinary income, and any losses incurred on a sale or other disposition of the Common Shares will be treated as ordinary losses to the extent of any net mark-to-market gains previously included in income.

If the Company is classified as a PFIC for any taxable year in which a U.S. Holder owns Common Shares but before a mark-to-market election is made, the adverse PFIC rules described above will apply to any mark-to-market gain recognized in the year the election is made. Otherwise, a mark-to-market election will be effective for the taxable year for which the election is made and all subsequent taxable years. The election cannot be revoked without the consent of the IRS unless the Common Shares cease to be marketable, in which case the election is automatically terminated.

If the Company is classified as a PFIC, a U.S. Holder of Common Shares will generally be treated as owning stock owned by the Company in any direct or indirect subsidiaries that are also PFICs and will be subject to similar adverse rules with respect to distributions to the Company by, and dispositions by the Company of, the stock of such subsidiaries. A mark-to-market election is not permitted for the shares of any subsidiary of the Company that is also classified as a PFIC. U.S. Holders should consult their tax advisors regarding the availability of, and procedure for making, a mark-to-market election.

In some cases, a shareholder of a PFIC can avoid the interest charge and the other adverse PFIC consequences described above by making a QEF election to be taxed currently on its share of the PFIC's undistributed income. The Company does not, however, expect to provide the information regarding its income that would be necessary in order for a U.S. Holder to make a QEF election with respect to Common Shares if the Company is classified as a PFIC.

A U.S. Holder that makes a timely and effective QEF election for the first tax year in which its holding period of its Common Shares begins generally will not be subject to the adverse PFIC consequences described above with respect to its Common Shares. Rather, a U.S. Holder that makes a timely and effective QEF election will be subject to U.S. federal income tax on such U.S. Holder's pro rata share of (a) the Company's net capital gain, which will be taxed as long-term capital gain to such U.S. Holder, and (b) the Company's ordinary earnings, which will be taxed as ordinary income to such U.S. Holder, in each case regardless of which such amounts are actually distributed to the U.S. Holder by the Company. Generally, "net capital gain" is the excess of (a) net long-term capital gain over (b) net short-term capital loss, and "ordinary earnings" are the excess of (a) "earnings and profits" over (b) net capital gain.

A U.S. Holder that makes a timely and effective QEF election with respect to the Company generally (a) may receive a tax-free distribution from us to the extent that such distribution represents "earnings and profits" that were previously included in income by the U.S. Holder because of such QEF election and (b) will adjust such U.S. Holder's tax basis in the Common Shares to reflect the amount included in income or allowed as a tax-free distribution because of such QEF election. In addition, a U.S. Holder that makes a QEF election generally will recognize capital gain or loss on the sale or other taxable disposition of Common Shares.

The QEF election is made on a shareholder-by-shareholder basis. Once made, a QEF election will apply to the tax year for which the QEF election is made and to all subsequent tax years, unless the QEF election is invalidated or terminated or the IRS consents to revocation of the QEF election. In addition, if a U.S. Holder makes a QEF election, the QEF election will remain in effect (although it will not be applicable) during those tax years in which the Company is not a PFIC.

If the Company is classified as a PFIC and then ceases to be so classified, a U.S. Holder may make an election (a "deemed sale election") to be treated for U.S. federal income tax purposes as having sold such U.S. Holder's Common Shares on the last day of the taxable year of the Company during which it was a PFIC. A U.S. Holder that made a deemed sale election would then cease to be treated as owning stock in a PFIC by reason of ownership of Common Shares in the Company. However, gain recognized as a result of making the deemed sale election would be subject to the adverse rules described above and loss would not be recognized.

If the Company is a PFIC in any year with respect to a U.S. Holder, the U.S. Holder will be required to file an annual information return on IRS Form 8621 regarding distributions received on Common Shares and any gain realized on the disposition of Common Shares.

In addition, if the Company is a PFIC, U.S. Holders will generally be required to file an annual information return with the IRS (also on IRS Form 8621, which PFIC shareholders are required to file with their U.S. federal income tax or information returns) relating to their ownership of Common Shares. This new filing requirement is in addition to the preexisting reporting requirements described above that apply to a U.S. Holder's interest in a PFIC (which this requirement does not affect).

U.S. Holders should consult their tax advisors regarding the potential application of the PFIC regime and any reporting obligations to which they may be subject under that regime.

#### Information Reporting and Backup Withholding

Payments made within the United States, or by a U.S. payor or U.S. middleman, of dividends on, and proceeds arising from sales or other dispositions of Common Shares, generally will be reported to the IRS and to the U.S. Holder as required under applicable regulations. Backup withholding tax may apply to these payments if the U.S. Holder fails to timely provide in the appropriate manner an accurate taxpayer identification number or otherwise fails to comply with, or establish an exemption from, such backup withholding tax requirements. Certain U.S. Holders are not subject to the information reporting or backup withholding tax requirements described herein. U.S. Holders should consult their tax advisors as to their qualification for exemption from backup withholding tax and the procedure for establishing an exemption.

Backup withholding tax is not an additional tax. U.S. Holders generally will be allowed a refund or credit against their U.S. federal income tax liability for amounts withheld, provided the required information is timely furnished to the IRS.

Subject to certain exceptions and future guidance, U.S. tax legislation generally requires a U.S. Holder that is a specified individual or, to the extent provided in future guidance, a domestic entity, to report annually to the IRS on IRS Form 8938 such U.S. Holder's interests in stock or securities issued by a non-U.S. person (such as the Company). Pursuant to IRS Notice 2013-10, reporting under this legislation will not be required by domestic entities any earlier than taxable years beginning after

December 31, 2012. U.S. Holders should consult their tax advisors regarding the information reporting obligations that may arise from their acquisition, ownership or disposition of Common Shares.

F. Dividends and paying agents

Not applicable.

G. Statement by experts

Not applicable.

H. Documents on display

In addition to placing our audited comparative annual financial statements before every annual meeting of shareholders as described above, we are subject to the information requirements of the Securities Exchange Act of 1934, as amended. In accordance with these requirements, we file and furnish reports and other information with the SEC. These materials, including this Annual Report on Form 20-F and the exhibits hereto, may be inspected and copied at the SEC's Public Reference Room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. The public may obtain information on the operation of the SEC's Public Reference Room by calling the SEC in the United States at 1-800-SEC-0330. The SEC also maintains a website at [www.sec.gov](http://www.sec.gov) that contains reports, proxy statements and other information regarding registrants that file electronically with the SEC. Our annual reports and some of the other information we submitted to the SEC may be accessed through this website. In addition, material we filed can be inspected on the Canadian Securities Administrators' electronic filing system, SEDAR, accessible at the website [www.sedar.com](http://www.sedar.com). This material includes our Management Information Circular for our annual meeting of shareholders to be held on May 8, 2015 furnished to the SEC on Form 6-K, which provides information including directors' and officers' remuneration and indebtedness and principal holders of securities. Additional financial information is provided in our audited annual financial statements for the year ended December 31, 2014 and our MD&A relating to these statements included elsewhere in this Annual Report on Form 20-F. These documents are also accessible on SEDAR ([www.sedar.com](http://www.sedar.com)) and on EDGAR ([www.sec.gov](http://www.sec.gov)).

I. Subsidiary information

Our subsidiaries are set forth under "Item 4C. – Organizational Structure".

Item 11. Quantitative and Qualitative Disclosures About Market Risk

We have not entered into any forward currency contracts or other financial derivatives to hedge foreign exchange risk. We are therefore subject to foreign currency transaction and translation gains and losses.

Fair value

The Company classifies its financial instruments in the following categories: "Financial assets at fair value through profit or loss ("FVTPL)"; "Loans and receivables"; "Financial liabilities at FVTPL"; and "Other financial liabilities".

The Company's loans and receivables are comprised of cash and cash equivalents, trade and other receivables and restricted cash equivalents.

Financial liabilities at FVTPL are currently comprised of the Company's warrant liability.

Other financial liabilities include trade accounts payable and accrued liabilities, provision for restructuring costs and other non-current liabilities.

The carrying values of all of the aforementioned financial instruments, excluding cash and cash equivalents, restricted cash equivalents and warrant liability which are stated at fair value, approximate their fair values due to their short-term maturity or to the prevailing interest rates of these instruments, which are comparable to those of the market.

## Financial risk factors

The following provides disclosures relating to the nature and extent of the Company's exposure to risks arising from financial instruments, including credit risk, liquidity risk and market risk (share price risk and currency risk), and how the Company manages those risks.

## (a) Credit risk

Credit risk is the risk of an unexpected loss if a customer or counterparty to a financial instrument fails to meet its contractual obligations. The Company regularly monitors credit risk exposure and takes steps to mitigate the likelihood of this exposure resulting in losses. The Company's exposure to credit risk currently relates to cash and cash equivalents, to trade and other receivables and to restricted cash equivalents. The Company holds its available cash in amounts that are readily convertible to known amounts of cash and deposits its cash balances with financial institutions that are rated the equivalent of "Baa1" and above. This information is supplied by independent rating agencies where available and, if not available, the Company uses publicly available financial information to ensure it invests its cash in creditworthy and reputable financial institutions.

As at December 31, 2014, trade accounts receivable for an amount of approximately \$0.3 million were with three counterparties.

As at December 31, 2014, no trade accounts receivable were past due or impaired.

Generally, the Company does not require collateral or other security from customers for trade accounts receivable; however, credit is extended following an evaluation of creditworthiness. In addition, the Company performs ongoing credit reviews of all its customers and establishes an allowance for doubtful accounts when accounts are determined to be uncollectible.

The maximum exposure to credit risk approximates the amount recognized on the statement of financial position.

## Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they become due. As indicated in the capital disclosures section (see "Item 5 – Operating and Financial Review and Prospects") the Company manages this risk through the management of its capital structure. It also manages liquidity risk by continuously monitoring actual and projected cash flows. The Board of Directors reviews and approves the Company's operating and capital budgets, as well as any material transactions out of the ordinary course of business. The Company has adopted an investment policy in respect of the safety and preservation of its capital to ensure the Company's liquidity needs are met. The instruments are selected with regard to the expected timing of expenditures and prevailing interest rates.

## (b) Market risk

## Share price risk

The change in fair value of the Company's warrant liability, which is measured at FVTPL, results from the periodic "mark-to-market" revaluation, via the application of the Black-Scholes option pricing model, of currently outstanding share purchase warrants. The Black-Scholes valuation is impacted, among other inputs, by the market price of the Company's Common Shares. As a result, the change in fair value of the warrant liability, which is reported as finance income (costs) in the accompanying consolidated statements of comprehensive (loss) income, has been and may continue in future periods to be materially affected most notably by changes in the Company's common share closing price, which on the NASDAQ, has ranged from \$0.52 to \$1.50 during the year ended December 31, 2014.

If variations in the market price of our Common Shares of -10% and +10% were to occur, the impact on the Company's net (loss) income for warrant liability held at December 31, 2014 would be as follows:

| (in thousands)                                     | Carrying<br>amount | -10%  | +10%   |   |
|--|--------------------|-------|--------|---|
|  | \$                 | \$    | \$     |   |
| Warrant liability                                  | 8,225              | 1,117 | (1,147 | ) |
| Total impact on net income – decrease / (increase) |                    | 1,117 | (1,147 | ) |

## Foreign currency risk

Since the Company operates internationally, it is exposed to currency risks as a result of potential exchange rate fluctuations related to non-intragroup transactions. In particular, fluctuations in the US dollar exchange rates against the EUR could have a potentially significant impact on the Company's results of operations.

If foreign exchange rate variations of -5% (depreciation of the EUR) and +5% (appreciation of the EUR) against the US\$, from period-end rates of EUR1 = US\$1.2101 were to occur, the impact on the Company's net (loss) income for each category of financial instruments held at December 31, 2014 would be as follows:

| (in thousands)                                     | Carrying<br>amount | Balances denominated in US\$ |          |
|--|--------------------|------------------------------|----------|
|  |                    | -5%                          | +5%      |
|  | \$                 | \$                           | \$       |
| Cash and cash equivalents                          | 25,184             | 1,259                        | (1,259 ) |
| Warrant liability                                  | 8,225              | (411                         | ) 411    |
| Total impact on net income – decrease / (increase) |                    | 848                          | (848 )   |

## Item 12. Description of Securities Other than Equity Securities

## A. Debt securities

Not applicable.

## B. Warrants and rights

Not applicable.

## C. Other securities

Not applicable.

## D. American depositary shares

Not applicable.

## PART II

### Item 13. Defaults, Dividend Arrearages and Delinquencies

None.

### Item 14. Material Modification to the Rights of Security Holders and Use of Proceeds

None.

### Item 15. Controls and Procedures

Under the supervision of and with the participation of the Registrant's management, including the Chief Executive Officer and Chief Financial Officer, we have conducted an evaluation pursuant to Rule 13a-15, promulgated under the Securities Exchange Act of 1934, as amended, of the effectiveness of our disclosure controls and procedures as at December 31, 2014. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that these disclosure controls and procedures were effective as at December 31, 2014.

#### Management's Annual Report on Internal Control over Financial Reporting

The Registrant's management is responsible for establishing and maintaining adequate internal control over financial reporting. The Registrant's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS as issued by IASB.

The Registrant's internal control over financial reporting includes those policies and procedures that: (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the Registrant's assets; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with IFRS, and that receipts and expenditures of the Registrant are being made only in accordance with authorizations of the Registrant's management; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Registrant's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management conducted an evaluation of the effectiveness of the Registrant's internal control over financial reporting based on the criteria established in Internal Control - Integrated Framework: 2013 issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, management concluded that the Registrant's internal control over financial reporting was effective as at December 31, 2014.

#### Attestation Report of the Independent Auditors

The effectiveness of the Registrant's internal control over financial reporting as of December 31, 2014, has been audited by PricewaterhouseCoopers LLP, independent auditors, as stated in their report which is included under "Item 18. – Financial Statements".

#### Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting during the year ended December 31, 2014 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 16A. Audit Committee Financial Expert

Our Board has determined that we have at least one audit committee financial expert (as defined in paragraph (b) of Item 16A to Form 20-F). The name of the audit committee financial expert is Mr. Gérard Limoges, FCPA, FCA, the Audit Committee's Chairman. The Commission has indicated that the designation of Mr. Limoges as our audit committee financial expert does not: (i) make Mr. Limoges an "expert" for any purpose, including without limitation for purposes of Section 11 of the Securities Act of 1933, as amended, as a result of this designation; (ii) impose any duties, obligations or liability on Mr. Limoges that are greater than those imposed on him as a member of the Audit Committee and the Board in the absence of such designation; or (iii) affect the duties, obligations or liability of any other member of the Audit Committee or the Board. The other members of the Audit committee are Mr. Pierre Lapalme and Mr. José P. Dorais, each of whom, along with Mr. Limoges, is independent, as that term is defined in the NASDAQ listing standards. For a description of their respective education and experience, please refer to "Item 6. – Directors, Senior Management and Employees".

Item 16B. Code of Ethics

On March 29, 2004, the Board adopted a "Code of Ethical Conduct", which has been amended by the Board on November 3, 2004, December 13, 2005, March 2, 2007 and March 10, 2009. The December 13, 2005 amendment incorporates changes to the duty to report violations consistent with applicable laws. We selected an independent third party supplier to provide a confidential and anonymous communication channel for reporting concerns about possible violations to the our Code of Ethical Conduct as well as financial and/or accounting irregularities or fraud. A copy of the Code of Ethical Conduct, as amended, is included as Exhibit 11.1 to this Annual Report on Form 20-F and is also available on our Web site at [www.aezsinc.com](http://www.aezsinc.com) under the Investors - Governance tab. The Code of Ethical Conduct is a "code of ethics" as defined in paragraph (b) of Item 16B to Form 20-F. The Code of Ethical Conduct applies to all of our employees, directors and officers, including our principal executive officer, principal financial officer, and principal accounting officer or controller, or persons performing similar functions, and includes specific provisions dealing with integrity in accounting matters, conflicts of interest and compliance with applicable laws and regulations. On December 4, 2014, our Board of Directors adopted a "Code of Business Conduct and Ethics for Members of the Board of Directors", which is included as Exhibit 11.2 to this Annual Report on Form 20-F. We will provide these documents without charge to any person or company upon request to our Chief Financial Officer, at our head office at 1405 du Parc-Technologique Boulevard, Quebec City, Quebec, G1P 4P5, Canada.

Item 16C. Principal Accountant Fees and Services

(All amounts are in US dollars)

A. Audit Fees

During the financial years ended December 31, 2014 and 2013, the Registrant's principal accountant, PricewaterhouseCoopers LLP, billed \$458,248 and \$422,613, respectively, for the audit of the Registrant's annual consolidated financial statements and for services rendered in connection with the Registrant's statutory and regulatory filings.

B. Audit-related Fees

During the financial years ended December 31, 2014 and 2013, the Registrant's principal accountant, PricewaterhouseCoopers LLP, billed \$92,241 and \$218,857, respectively, for audit or attest services not required by statute or regulation, for accounting consultations on proposed transactions, for the review of prospectuses and prospectus supplements, including the delivery of customary consent and comfort letters in connection therewith.

C. Tax Fees

During the financial years ended December 31, 2014 and 2013, the Registrant's principal accountant, PricewaterhouseCoopers LLP, billed \$27,661 and \$36,332, respectively, for services related to tax compliance, tax planning and tax advice.

D. All Other Fees

During the financial years ended December 31, 2014 and 2013, the Registrant's principal accountant, PricewaterhouseCoopers LLP, billed \$4,018 and \$8,928, respectively, for services not included in audit fees, audit-related fees and tax fees.



E. Audit Committee Pre-Approval Policies and Procedures

Under applicable Canadian securities regulations, the Registrant is required to disclose whether its Audit Committee has adopted specific policies and procedures for the engagement of non-audit services and to prepare a summary of these policies and procedures. The Audit Committee Charter (included as Exhibit 11.3 to this Annual Report on Form 20-F) provides that it is such committee's responsibility to approve all audit engagement fees and terms as well as reviewing policies for the provision of non-audit services by the external auditors and, when required, the framework for pre-approval of such services. The Audit Committee delegates to its Chairman the pre-approval of such non-audit fees. The pre-approval by the Chairman is then presented to the Audit Committee at its first scheduled meeting following such pre-approval.

For each of the years ended December 31, 2014 and 2013, none of the non-audit services provided by the Registrant's external auditor were approved by the Audit Committee pursuant to the "de minimis exception" to the pre-approval requirement for non-audit services.

F. Work performed by Full-time, Permanent Employees of Principal Accountant

During the financial year ended on December 31, 2014, only full-time, permanent employees of the Registrant's principal accountant, PricewaterhouseCoopers LLP, performed audit work on the Registrant's financial statements.

Item 16D. Exemptions from the Listing Standards for Audit Committees

None.

Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers

None.

Item 16F. Changes in Registrant's Certifying Accountant

None.

Item 16G. Corporate Governance

We are generally in compliance with the corporate governance requirements of NASDAQ except as described below. We are not in compliance with the NASDAQ requirement that a quorum for a meeting of the holders of our common stock be no less than 33 1/3% of such outstanding shares. Our by-laws provide that a quorum for purposes of any meeting of our shareholders consists of at least 10% of the outstanding voting shares. We benefit from an exemption from NASDAQ from this quorum requirement because the quorum provided for in our by-laws complies with the requirements of the CBCA, our governing corporate statute, and with the rules of TSX, the home country exchange on which our voting shares are traded. In accordance with applicable current NASDAQ requirements, we have in the past, and upon request, provided to NASDAQ letters from outside counsel certifying that these practices are not prohibited by our home country law.

Item 16H. Mine Safety Disclosure

None.

PART III

Item 17 Financial Statements

We have elected to provide financial statements pursuant to Item 18.

Item 18. Financial Statements

The financial statements appear on pages 100 through 148.

Aeterna Zentaris Inc.

Consolidated Financial Statements

As at December 31, 2014 and December 31, 2013 and for the years ended

December 31, 2014, 2013 and 2012

(presented in thousands of US dollars)

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Independent Auditor's Report

To the Shareholders of  
Aeterna Zentaris Inc.

We have completed integrated audits of Aeterna Zentaris Inc. and its subsidiaries' 2014, 2013 and 2012 consolidated financial statements and their internal control over financial reporting as at December 31, 2014. Our opinions, based on our audits, are presented below.

Report on the consolidated financial statements

We have audited the accompanying consolidated financial statements of Aeterna Zentaris Inc. and its subsidiaries, which comprise the consolidated statements of financial position as at December 31, 2014 and December 31, 2013 and the consolidated statements of changes in shareholders' equity (deficiency), comprehensive (loss) income and cash flows for each of the three years in the period ended December 31, 2014, and the related notes, which comprise a summary of significant accounting policies and other explanatory information.

Management's responsibility for the consolidated financial statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with Canadian generally accepted auditing standards and the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement. Canadian generally accepted auditing standards also require that we comply with ethical requirements. An audit involves performing procedures to obtain audit evidence, on a test basis, about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the company's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of accounting principles and policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained in our audits is sufficient and appropriate to provide a basis for our audit opinion on the consolidated financial statements.

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PricewaterhouseCoopers LLP

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"PwC" refers to PricewaterhouseCoopers LLP, an Ontario limited liability partnership.

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## Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of Aeterna Zentaris Inc. and its subsidiaries as at December 31, 2014 and December 31, 2013 and their financial performance and their cash flows for each of the three years in the period ended December 31, 2014 in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board.

### Report on internal control over financial reporting

We have also audited Aeterna Zentaris Inc. and its subsidiaries' internal control over financial reporting as at December 31, 2014, based on criteria established in Internal Control - Integrated Framework (2013), issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

### Management's responsibility for internal control over financial reporting

Management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the section entitled "Management's Annual Report on Internal Control over Financial Reporting" appearing on page 96 of the Annual Report on Form 20-F.

### Auditor's responsibility

Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit. We conducted our audit of internal control over financial reporting in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

An audit of internal control over financial reporting includes obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control, based on the assessed risk, and performing such other procedures as we consider necessary in the circumstances.

We believe that our audit provides a reasonable basis for our audit opinion on the company's internal control over financial reporting.

### Definition of internal control over financial reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that: (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

### Inherent limitations

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions or that the degree of compliance with the policies or procedures may deteriorate.

## Opinion

In our opinion, Aeterna Zentaris Inc. and its subsidiaries maintained, in all material respects, effective internal control over financial reporting as at December 31, 2014, based on criteria established in Internal Control - Integrated Framework (2013) issued by COSO.

Montréal, Quebec, Canada  
March 17, 2015

<sup>1</sup> CPA auditor, CA, public accountancy permit No. A123498

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Aeterna Zentaris Inc.  
 Consolidated Statements of Financial Position  
 (in thousands of US dollars)

|  | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
|  | \$                | \$                |
| <b>ASSETS</b>  |                   |                   |
| Current assets   |                   |                   |
| Cash and cash equivalents (note 7)                     | 34,931            | 43,202            |
| Trade and other receivables (note 8)                   | 867               | 1,953             |
| Prepaid expenses and other current assets              | 419               | 500               |
|  | 36,217            | 45,655            |
| Restricted cash equivalents (note 9)                   | 760               | 865               |
| Property, plant and equipment (note 10)                | 797               | 1,351             |
| Other non-current assets                               | 622               | 725               |
| Identifiable intangible assets (note 11)               | 352               | 708               |
| Goodwill (note 12)                                     | 8,687             | 9,892             |
|  | 47,435            | 59,196            |
| <b>LIABILITIES</b>                                     |                   |                   |
| Current liabilities                                    |                   |                   |
| Payables and accrued liabilities (note 13)             | 5,799             | 7,242             |
| Provision for restructuring costs (note 14)            | 1,505             | —                 |
| Deferred revenues (note 5)                             | 270               | —                 |
|  | 7,574             | 7,242             |
| Deferred revenues (note 5)                             | 809               | —                 |
| Warrant liability (note 15)                            | 8,225             | 18,010            |
| Employee future benefits (note 19)                     | 15,053            | 15,407            |
| Provisions and other non-current liabilities (note 16) | 1,290             | 1,473             |
|  | 32,951            | 42,132            |
| <b>SHAREHOLDERS' EQUITY</b>                            |                   |                   |
| Share capital (note 17)                                | 150,544           | 134,101           |
| Other capital  | 86,639            | 86,107            |
| Deficit  | (222,322)         | (203,925)         |
| Accumulated other comprehensive (loss) income          | (377)             | 781               |
|  | 14,484            | 17,064            |
|  | 47,435            | 59,196            |

Commitments and contingencies (note 25)

Subsequent events (note 28)

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

Approved by the Board of Directors

David A. Dodd  
 Chairman of the Board

Gérard Limoges  
 Director

## Aeterna Zentaris Inc.

## Consolidated Statements of Changes in Shareholders' Equity (Deficiency)

For the years ended December 31, 2014, 2013 and 2012

(in thousands of US dollars, except share data)

|  | Common<br>shares<br>(number of) <sup>1, 2</sup> | Share<br>capital | Other<br>capital | Deficit    | Accumulated<br>other<br>comprehensive<br>income (loss) | Total     |
|--|---|------------------|------------------|------------|--|-----------|
|  |   | \$               | \$               | \$         | \$   | \$        |
| Balance - January 1, 2014  | 45,312,009                                      | 134,101          | 86,107           | (203,925 ) | 781  | 17,064    |
| Net loss   |   | —                | —                | (16,564 )  | —  | (16,564 ) |
| Other comprehensive income:  |   |                  |                  |            |  |           |
| Foreign currency translation<br>adjustments  |   | —                | —                | —          | (1,158 )   | (1,158 )  |
| Actuarial loss on defined<br>benefit plans (note 19)                                     |   | —                | —                | (1,833 )   | —  | (1,833 )  |
| Comprehensive loss   |   | —                | —                | (18,397 )  | (1,158 )   | (19,555 ) |
| Share issuance in connection<br>with a public offering (note 17)                         | 11,000,000                                      | 4,340            | —                | —          | —  | 4,340     |
| Share issuances in connection<br>with "At-the-Market"<br>drawdowns (note 17)             | 9,197,068                                       | 12,103           | —                | —          | —  | 12,103    |
| Share-based compensation<br>costs  |   | —                | 532              | —          | —  | 532       |
| Balance - December 31, 2014  | 65,509,077                                      | 150,544          | 86,639           | (222,322 ) | (377 )   | 14,484    |
|  | Common<br>shares<br>(number of) <sup>1, 2</sup> | Share<br>capital | Other<br>capital | Deficit    | Accumulated<br>other<br>comprehensive<br>(loss) income | Total     |
|  |   | \$               | \$               | \$         | \$   | \$        |
| Balance - January 1, 2013  | 25,329,288                                      | 122,791          | 83,892           | (213,086 ) | (292 )   | (6,695 )  |
| Net income   |   | —                | —                | 6,815      | —  | 6,815     |
| Other comprehensive income:  |   |                  |                  |            |  |           |
| Foreign currency translation<br>adjustments  |   | —                | —                | —          | 1,073  | 1,073     |
| Actuarial gain on defined<br>benefit plans (note 19)                                     |   | —                | —                | 2,346      | —  | 2,346     |
| Comprehensive income   |   | —                | —                | 9,161      | 1,073  | 10,234    |
| Share issuance in connection<br>with registered direct and<br>public offerings (note 17) | 18,300,000                                      | 8,573            | —                | —          | —  | 8,573     |
| Share issuances in connection<br>with "At-the-Market"<br>drawdowns (note 17)             | 1,682,721                                       | 2,737            | —                | —          | —  | 2,737     |
| Share-based compensation<br>costs  |   | —                | 2,215            | —          | —  | 2,215     |
| Balance - December 31, 2013  | 45,312,009                                      | 134,101          | 86,107           | (203,925 ) | 781  | 17,064    |

<sup>1</sup> Issued and paid in full.

<sup>2</sup> Adjusted to reflect the October 2, 2012 six-to-one share consolidation (see note 1 – Summary of business, liquidity risk, reporting entity, share consolidation and basis of preparation and note 17 – Share capital).

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

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Aeterna Zentaris Inc.

Consolidated Statements of Changes in Shareholders' Equity (Deficiency)

For the years ended December 31, 2014, 2013 and 2012

(in thousands of US dollars, except share data)

|  | Common<br>shares<br>(number of) <sup>1, 2</sup> | Share<br>capital | Other<br>capital | Deficit    | Accumulated<br>other<br>comprehensive<br>income (loss) | Total     |
|--|---|------------------|------------------|------------|--|-----------|
|  |   | \$               | \$               | \$         | \$   | \$        |
| Balance - January 1, 2012  | 17,460,349                                      | 101,884          | 82,327           | (188,969 ) | 212  | (4,546 )  |
| Net loss   |   | —                | —                | (20,412 )  | —  | (20,412 ) |
| Other comprehensive loss:  |   |                  |                  |            |  |           |
| Foreign currency translation<br>adjustments  |   | —                | —                | —          | (504 )   | (504 )    |
| Actuarial loss on defined benefit<br>plans (note 19)   |   | —                | —                | (3,705 )   | —  | (3,705 )  |
| Comprehensive loss   |   | —                | —                | (24,117 )  | (504 )   | (24,621 ) |
| Share issuance in connection with<br>a public offering                                       | 6,600,000                                       | 11,265           | —                | —          | —  | 11,265    |
| Share issuances in connection<br>with "At-the-Market" drawdowns,<br>net of transaction costs | 1,190,973                                       | 8,382            | —                | —          | —  | 8,382     |
| Share issuances pursuant to the<br>exercise of warrants (note 15)                            | 52,383  | 819              | —                | —          | —  | 819       |
| Share issuances pursuant to the<br>exercise of stock options (note 17)                       | 25,583  | 441              | (232 )           | —          | —  | 209       |
| Share-based compensation costs   |   | —                | 1,797            | —          | —  | 1,797     |
| Balance - December 31, 2012  | 25,329,288                                      | 122,791          | 83,892           | (213,086 ) | (292 )   | (6,695 )  |

<sup>1</sup> Issued and paid in full.<sup>2</sup> Adjusted to reflect the October 2, 2012 six-to-one share consolidation (see note 1 – Summary of business, liquidity risk, reporting entity, share consolidation and basis of preparation and note 17 – Share capital).

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

Aeterna Zentaris Inc.  
Consolidated Statements of Comprehensive (Loss) Income  
For the years ended December 31, 2014, 2013 and 2012  
(in thousands of US dollars, except share and per share data)

|  | Years ended December 31, |            |            |
|--|--------------------------|------------|------------|
|  | 2014                     | 2013       | 2012       |
|  | \$                       | \$         | \$         |
| Revenues   |                          |            |            |
| Sales  | —                        | 96         | 834        |
| License fees (note 5)  | 11                       | 6,079      | 1,219      |
|  | 11                       | 6,175      | 2,053      |
| Operating expenses (note 18)   |                          |            |            |
| Cost of sales  | —                        | 51         | 591        |
| Research and development costs, net of refundable tax credits and grants (notes 11 and 14) | 23,716                   | 21,284     | 20,592     |
| Selling, general and administrative expenses (notes 10 and 14)                             | 13,690                   | 12,316     | 10,606     |
|  | 37,406                   | 33,651     | 31,789     |
| Loss from operations   | (37,395)                 | ) (27,476) | ) (29,736) |
| Finance income (note 20)   | 20,319                   | 1,748      | 6,974      |
| Finance costs (note 20)  | —                        | (1,512)    | ) (382)    |
| Net finance income (costs)   | 20,319                   | 236        | 6,592      |
| Loss before income taxes   | (17,076)                 | ) (27,240) | ) (23,144) |
| Income tax expense (notes 5 and 22)  | (111)                    | ) —        | ) —        |
| Net loss from continuing operations  | (17,187)                 | ) (27,240) | ) (23,144) |
| Net income from discontinued operations (note 6)   | 623                      | 34,055     | 2,732      |
| Net (loss) income  | (16,564)                 | ) 6,815    | ) (20,412) |
| Other comprehensive (loss) income:   |                          |            |            |
| Items that may be reclassified subsequently to profit or loss:                             |                          |            |            |
| Foreign currency translation adjustments   | (1,158)                  | ) 1,073    | (504)      |
| Items that will not be reclassified to profit or loss:                                     |                          |            |            |
| Actuarial (loss) gain on defined benefit plans   | (1,833)                  | ) 2,346    | (3,705)    |
| Comprehensive (loss) income  | (19,555)                 | ) 10,234   | (24,621)   |
| Net loss per share (basic and diluted) from continuing operations (note 26)                | (0.29)                   | ) (0.92)   | ) (1.17)   |
| Net income (basic and diluted) from discontinued operations (notes 6 and 26)               | 0.01                     | 1.16       | 0.14       |
| Net (loss) income (basic and diluted) per share  | (0.28)                   | ) 0.24     | (1.03)     |
| Weighted average number of shares outstanding (notes 17 and 26):                           |                          |            |            |
| Basic  | 59,024,730               | 29,476,455 | 19,775,073 |
| Diluted  | 59,024,730               | 29,476,455 | 19,806,687 |

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

Aeterna Zentaris Inc.  
Consolidated Statements of Cash Flows  
For the years ended December 31, 2014, 2013 and 2012  
(in thousands of US dollars)

|  | Years ended December 31, |           |           |
|--|--------------------------|-----------|-----------|
|  | 2014                     | 2013      | 2012      |
|  | \$                       | \$        | \$        |
| Cash flows from operating activities   |                          |           |           |
| Net loss from continuing operations  | (17,187                  | ) (27,240 | ) (23,144 |
| Items not affecting cash and cash equivalents:   |                          |           |           |
| Change in fair value of warrant liability (note 15)  | (18,272                  | ) (1,563  | ) (6,746  |
| Provision for restructuring costs (note 14)  | 2,489                    | —         | —         |
| Depreciation, amortization and impairment (notes 10 and 11)  | 878                      | 949       | 1,234     |
| Share-based compensation costs (note 17)   | 497                      | 2,215     | 1,797     |
| Employee future benefits (note 19)   | 605                      | 470       | 889       |
| Amortization of deferred revenues (note 5)   | —                        | (6,046    | ) (1,077  |
| Foreign exchange (gain) loss on items denominated in foreign currencies  | (1,164                   | ) 1,078   | 614       |
| Gain on disposal of property, plant and equipment  | (66                      | ) —       | —         |
| Amortization of prepaid expenses and other non-cash items  | 2,640                    | 6,831     | 4,756     |
| Transaction cost allocated to warrants issued (note 17)  | 666                      | 1,165     | 370       |
| Changes in operating assets and liabilities (note 21)  | (1,873                   | ) (7,990  | ) (4,374  |
| Net cash (used in) provided by operating activities of discontinued operations (note 6)  | (295                     | ) 10,147  | (5,134    |
| Net cash used in operating activities  | (31,082                  | ) (19,984 | ) (30,815 |
| Cash flows from financing activities   |                          |           |           |
| Proceeds from issuances of common shares and warrants, net of cash transaction costs of \$1,348 in 2014, \$2,119 in 2013 and \$1,665 in 2012 (note 17) | 24,358                   | 23,708    | 23,619    |
| Proceeds from the exercise of share purchase warrants (note 15)  | —                        | —         | 437       |
| Proceeds from the exercise of stock options (note 17)  | —                        | —         | 209       |
| Repayment of long-term payable   | —                        | —         | (57       |
| Net cash provided by financing activities  | 24,358                   | 23,708    | 24,208    |
| Cash flows from investing activities   |                          |           |           |
| Purchase of property, plant and equipment (note 10)  | (127                     | ) (85     | ) (272    |
| Disposals of property, plant and equipment (note 10)   | 66                       | —         | —         |
| Net cash provided by investing activities of discontinued operations   | —                        | 113       | —         |
| Net cash (used in) provided by investing activities  | (61                      | ) 28      | (272      |
| Effect of exchange rate changes on cash and cash equivalents   | (1,486                   | ) (71     | ) (481    |
| Net change in cash and cash equivalents  | (8,271                   | ) 3,681   | (7,360    |
| Cash and cash equivalents – Beginning of the year (note 7)   | 43,202                   | 39,521    | 46,881    |
| Cash and cash equivalents – End of the year (note 7)   | 34,931                   | 43,202    | 39,521    |

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



Aeterna Zentaris Inc.

Notes to Consolidated Financial Statements

As at December 31, 2014 and December 31, 2013 and for the years ended December 31, 2014, 2013 and 2012 (tabular amounts in thousands of US dollars, except share/option/warrant and per share/option/warrant data and as otherwise noted)

1 Summary of business, liquidity risk, reporting entity, share consolidation and basis of preparation

Summary of business

Aeterna Zentaris Inc. (the "Company") is a specialty biopharmaceutical company engaged in developing and commercializing novel treatments in oncology, endocrinology and women's health.

Liquidity risk

The Company has a history of operating losses, due largely to significant research and development ("R&D") investment, as well as to the incurrence of substantial selling, general and administrative ("SG&A") expenses. The Company has financed its operations through different sources, including the issuance of common shares and the conclusion of strategic alliances with licensee partners and other collaborators. The Company expects to continue to incur operating expenses and may require significant capital to fulfill its future obligations in absence of sufficient corresponding revenues. See note 23 – Capital disclosures and note 24(b) – Financial instruments and financial risk management – Liquidity risk.

Reporting entity

The accompanying consolidated financial statements include the accounts of Aeterna Zentaris Inc., an entity incorporated under the Canada Business Corporations Act, and its wholly owned subsidiaries (collectively referred to as the "Group"). Aeterna Zentaris Inc. is the ultimate parent company of the Group.

The Company currently has three wholly owned direct and indirect subsidiaries, Aeterna Zentaris GmbH ("AEZS Germany"), based in Frankfurt, Germany, Zentaris IVF GmbH, a wholly owned subsidiary of AEZS Germany, based in Frankfurt, Germany, and Aeterna Zentaris, Inc., an entity incorporated in the state of Delaware and with offices in Summerville, South Carolina, in the United States.

The address of the Company is 1405 du Parc-Technologique Blvd., Quebec City, Canada, G1P 4P5.

The Company's common shares are listed both on the Toronto Stock Exchange and on the NASDAQ Capital Market (the "NASDAQ").

Share consolidation (reverse stock split)

On October 2, 2012, the Company effected a consolidation of its issued and outstanding common shares on a six-to-one basis (the "Share Consolidation"). The Share Consolidation affected all shareholders, optionholders and warrant holders uniformly and thus did not materially affect any securityholder's percentage of ownership interest. All references in these consolidated financial statements to common shares, options and share purchase warrants have been retroactively adjusted to reflect the Share Consolidation.

Basis of preparation

(a) Statement of compliance

The consolidated financial statements as at December 31, 2014 and December 31, 2013 and for the years ended December 31, 2014, 2013 and 2012 have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

These consolidated financial statements were approved by the Company's Board of Directors on March 17, 2015.

The accompanying consolidated financial statements were prepared on a going concern basis, under the historical cost convention, except for the warrant liability, which is measured at fair value through profit or loss ("FVTPL").

The preparation of financial statements in accordance with IFRS requires the use of certain critical accounting estimates and the exercise of management's judgment in applying the Company's accounting policies. Areas

Aeterna Zentaris Inc.

Notes to Consolidated Financial Statements

As at December 31, 2014 and December 31, 2013 and for the years ended December 31, 2014, 2013 and 2012 (tabular amounts in thousands of US dollars, except share/option/warrant and per share/option/warrant data and as otherwise noted)

involving a high degree of judgment or complexity and areas where assumptions and estimates are significant to the Company's consolidated financial statements are discussed in note 3 – Critical accounting estimates and judgments.

(b) Principles of consolidation

These consolidated financial statements include any entity in which the Company directly or indirectly holds more than 50% of the voting rights or over which the Company exercises control. The Company controls an entity when the Company is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. An entity is included in the consolidation from the date that control is transferred to the Company, while any entities that are sold are excluded from the consolidation from the date that control ceases. All intercompany balances and transactions are eliminated on consolidation.

(c) Foreign currency

The accompanying consolidated financial statements are presented in thousands of US dollars, which is the Company's presentation currency.

Assets and liabilities of Group entities are translated from euro ("EUR") balances at the period-end exchange rates, and the results of operations are translated from EUR amounts at average rates of exchange for the period. The resulting translation adjustments are included in accumulated other comprehensive (loss) income within shareholders' equity.

Items included in the financial statements of the Group's entities are measured using the currency of the primary economic environment in which the entities operate (the "functional currency"), which, for all Group entities, was the EUR through December 31, 2014. Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the underlying transaction. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities not denominated in EUR are recognized in the consolidated statement of comprehensive (loss) income.

Foreign exchange gains and losses that relate to cash and cash equivalents and the warrant liability are presented within finance income or finance costs in the consolidated statement of comprehensive (loss) income. All other foreign exchange gains and losses are presented in the consolidated statement of comprehensive (loss) income within operating expenses.

2 Summary of significant accounting policies

The accounting policies set out below have been applied consistently to all years presented in these consolidated financial statements, and have been applied consistently by all Group entities.

Cash and cash equivalents

Cash and cash equivalents consist of unrestricted cash on hand and balances with banks, as well as short-term interest-bearing deposits, such as money market accounts, that are readily convertible to known amounts of cash and are subject to an insignificant risk of changes in value, with a maturity of three months or less from the date of acquisition.

Restricted cash equivalents

Restricted cash equivalents are comprised of a bank deposit, related to a guarantee for a long-term operating lease obligation, that cannot be used for current purposes.

Aeterna Zentaris Inc.

Notes to Consolidated Financial Statements

As at December 31, 2014 and December 31, 2013 and for the years ended December 31, 2014, 2013 and 2012 (tabular amounts in thousands of US dollars, except share/option/warrant and per share/option/warrant data and as otherwise noted)

#### Property, plant and equipment and depreciation

Items of property, plant and equipment are recorded at cost, net of related government grants and accumulated depreciation and impairment charges. Depreciation is calculated using the following methods, annual rates and period:

|                        | Methods                             | Annual rates and period                  |
|------------------------|-------------------------------------|--|
| Equipment              | Declining balance and straight-line | 20%                                      |
| Furniture and fixtures | Declining balance and straight-line | 10% and 20%                              |
| Computer equipment     | Straight-line                       | 25% and 33 <sup>1</sup> / <sub>3</sub> % |
| Leasehold improvements | Straight-line                       | Remaining lease term                     |

Depreciation expense, which is recorded in the consolidated statement of comprehensive (loss) income, is allocated to the appropriate functional expense categories to which the underlying items of property, plant and equipment relate.

#### Identifiable intangible assets

Identifiable intangible assets with finite useful lives consist of in-process R&D acquired in business combinations, patents and trademarks, technology and other assets. In-process R&D acquired in business combinations is recognized at fair value at the acquisition date. Patents and trademarks are comprised of costs, including professional fees incurred in connection with the filing of patents and the registration of trademarks for product marketing and manufacturing purposes, net of related government grants, impairment losses, where applicable, and accumulated amortization. Identifiable intangible assets with finite useful lives are amortized, from the time at which the assets are available for use, on a straight-line basis over their estimated useful lives of eight to fifteen years for in-process R&D and patents and ten years for trademarks. Amortization expense, which is recorded in the consolidated statement of comprehensive (loss) income, is allocated to the appropriate functional expense categories to which the underlying identifiable intangible assets relate.

#### Goodwill

Goodwill represents the excess of the purchase price over the fair values of the net assets of entities acquired at their respective dates of acquisition. Goodwill is carried at cost less accumulated impairment losses. Goodwill is allocated to each cash-generating unit ("CGU") or group of CGUs that are expected to benefit from the related business combination.

#### Impairment of assets

Items of property, plant and equipment and identifiable intangible assets with finite lives subject to depreciation or amortization, respectively, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amounts of the assets may not be recoverable. Management is required to assess at each reporting date whether there is any indication that an asset may be impaired. Where such an indication exists, the asset's recoverable amount is compared to its carrying value, and an impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. For the purpose of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows, or CGU. In determining value in use of a given asset or CGU, estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. Impairment losses are allocated to the appropriate functional expense categories to which the underlying identifiable intangible assets relate, and are recorded in the consolidated statement of comprehensive (loss) income.

Items of property, plant and equipment and amortizable identifiable intangible assets with finite lives that suffered impairment are reviewed for possible reversal of the impairment if there has been a change, since the date of the most recent impairment test, in the estimates used to determine the impaired asset's recoverable amount. However, an asset's carrying amount, increased due to the reversal of a prior impairment loss, must not exceed the carrying amount that would have been determined, net of depreciation or amortization, had the original impairment not occurred.



Aeterna Zentaris Inc.

Notes to Consolidated Financial Statements

As at December 31, 2014 and December 31, 2013 and for the years ended December 31, 2014, 2013 and 2012 (tabular amounts in thousands of US dollars, except share/option/warrant and per share/option/warrant data and as otherwise noted)

Goodwill is not subject to amortization and instead is tested for impairment annually or more often if there is an indication that the CGU to which the goodwill has been allocated may be impaired. Impairment is determined for goodwill by assessing whether the carrying value of a CGU, including the allocated goodwill, exceeds its recoverable amount, which is the higher of fair value less costs to sell and value in use. In the event that the carrying amount of goodwill exceeds its recoverable amount, an impairment loss is recognized in an amount equal to the excess. Impairment losses related to goodwill are not subsequently reversed.

Share purchase warrants

Share purchase warrants are classified as liabilities, since the Company does not have the unconditional right to avoid delivering cash to the holders in the future. Each of the Company's share purchase warrants contains a written put option, arising upon the occurrence of a Fundamental Transaction, as that term is defined in the share purchase warrant agreement, and also upon a change of control. As a result of the existence of these put options, and despite the fact that the repurchase feature is conditional on a defined contingency, the share purchase warrants are required to be classified as a financial liability, since such contingency could ultimately result in the transfer of assets by the Company.

The warrant liability is initially measured at fair value, and any subsequent changes in fair value are recognized as gains or losses through profit or loss. Any transaction costs related to the share purchase warrants are expensed as incurred.

The warrant liability is classified as non-current, unless the underlying share purchase warrants are expected to expire or be settled within 12 months from the end of a given reporting period.

Employee benefits

Salaries and other short-term benefits

Salaries and other short-term benefit obligations are measured on an undiscounted basis and are recognized in the consolidated statement of comprehensive (loss) income over the related service period or when the Company has a present legal or constructive obligation to make payments as a result of past events and when the amount payable can be estimated reliably.

Post-employment benefits

The Company's subsidiary in Germany maintains defined contribution and unfunded defined benefit plans, as well as other benefit plans for its employees. For defined benefit pension plans and other post-employment benefits, net periodic pension expense is actuarially determined on a quarterly basis using the projected unit credit method. The cost of pension and other benefits earned by employees is determined by applying certain assumptions, including discount rates, the projected age of employees upon retirement, the expected rate of future compensation and employee turnover.

The employee future benefits liability is recognized at its present value, which is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid and that have terms to maturity approximating the terms of the related future benefit liability. Actuarial gains and losses that arise in calculating the present value of the defined benefit obligation are recognized in other comprehensive (loss) income, net of tax, and simultaneously reclassified in the deficit in the consolidated statement of financial position in the year in which the actuarial gains and losses arise and without recycling to the consolidated statement of comprehensive (loss) income in subsequent periods.

For defined contribution plans, expenses are recorded in the consolidated statement of comprehensive (loss) income as incurred—namely, over the period that the related employee service is rendered.

Termination benefits

Termination benefits are recognized in the consolidated statement of comprehensive (loss) income when the Company is demonstrably committed, without the realistic possibility of withdrawal, to a formal detailed plan to terminate

employment earlier than originally expected. Termination benefit liabilities expected to be settled after 12 months from the end of a given reporting period are discounted to their present value, where material.

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Aeterna Zentaris Inc.

Notes to Consolidated Financial Statements

As at December 31, 2014 and December 31, 2013 and for the years ended December 31, 2014, 2013 and 2012 (tabular amounts in thousands of US dollars, except share/option/warrant and per share/option/warrant data and as otherwise noted)

#### Financial instruments

The Company classifies its financial instruments in the following categories: "Financial assets at FVTPL"; "Loans and receivables"; "Financial liabilities at FVTPL"; and "Other financial liabilities".

Financial assets and liabilities are offset, and the net amount is reported in the consolidated statement of financial position, when there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis or realize the asset and settle the liability simultaneously.

##### (a) Classification

Financial assets at fair value through profit or loss

Financial assets at FVTPL are financial assets held for trading. Fair value is defined as the amount at which the financial assets could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale. A financial asset is classified as at FVTPL if the instrument is acquired or received as consideration principally for the purpose of selling in the short-term. Financial assets at FVTPL are classified as current assets if expected to be settled within 12 months from the end of a given reporting period; otherwise, the assets are classified as non-current.

As at December 31, 2014 and 2013, the Company held no assets classified as financial assets at FVTPL.

##### Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. Loans and receivables are included in current assets, except for instruments with maturities greater than 12 months after the end of a given reporting period or where restrictions apply that limit the Company from using the instrument for current purposes, which are classified as non-current assets.

The Company's loans and receivables are comprised of cash and cash equivalents, trade and other receivables and restricted cash equivalents.

##### Financial liabilities at fair value through profit or loss

Financial liabilities at FVTPL are financial liabilities held for trading. A financial liability is classified as at FVTPL if the instrument is acquired or incurred principally for the purpose of selling or repurchasing in the short-term or where the Company does not have the unconditional right to avoid delivering cash or another financial asset to the holders in certain circumstances. Financial liabilities at FVTPL are classified as current liabilities if expected or potentially required to be settled within 12 months from the end of a given reporting period; otherwise, the liabilities are classified as non-current.

Financial liabilities at FVTPL are currently comprised of the Company's warrant liability.

##### Other financial liabilities

Other financial liabilities include trade accounts payable and accrued liabilities, provision for restructuring costs and other non-current liabilities.

##### (b) Recognition and measurement

Financial assets at fair value through profit or loss

Financial assets at FVTPL are recognized on the settlement date, which is the date on which the asset is delivered to the Company. Financial assets at FVTPL are initially recognized at fair value, and transaction costs are expensed immediately in the consolidated statement of comprehensive (loss) income. Financial assets at FVTPL are derecognized when the right to receive cash flows from the underlying investment have expired or have been transferred and when the Group has transferred substantially all risks and rewards of ownership. Gains and losses

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arising from changes in the fair value of financial assets at FVTPL are presented in the consolidated statement of comprehensive (loss) income within finance income or finance costs in the period in which they arise.

Loans and receivables

Loans and receivables are recognized on the settlement date and are measured initially at fair value and subsequently at amortized cost using the effective interest rate method.

Financial liabilities at fair value through profit or loss

Financial liabilities at FVTPL are recognized on the settlement date. Financial liabilities at FVTPL are initially recognized at fair value, and transaction costs are expensed immediately in the consolidated statement of comprehensive (loss) income. Gains and losses arising from changes in the fair value of financial liabilities at FVTPL are presented in the consolidated statement of comprehensive (loss) income within finance income or finance costs in the period in which they arise.

Other financial liabilities

Financial instruments classified as "Other financial liabilities" are measured initially at fair value and subsequently at amortized cost using the effective interest rate method.

(c) Impairment

Financial assets measured at amortized cost are reviewed for impairment at each reporting date. Where there is objective evidence that impairment exists for a financial asset measured at amortized cost, an impairment charge equivalent to the difference between the asset's carrying amount and the present value of estimated future cash flows is recorded in the consolidated statement of comprehensive (loss) income. The expected cash flows exclude future credit losses that have not been incurred and are discounted at the financial asset's original effective interest rate. Impairment charges related to financial assets carried at amortized cost are reversed if, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognized. However, the reversal cannot result in a carrying amount of the financial asset that exceeds what the amortized cost would have been had the impairment not been recognized at the date the impairment is reversed.

Share capital

Common shares are classified as equity. Incremental costs that are directly attributable to the issue of common shares and stock options are recognized as a deduction from equity, net of any tax effects.

Where offerings result in the issuance of units (where each unit is comprised of a common share of the Company and a share purchase warrant, exercisable in order to purchase a common share or fraction thereof), proceeds received in connection with those offerings are allocated between Share capital and Share purchase warrants based on the residual method. Proceeds are allocated to warrant liability based on the share purchase warrants fair value, and the residual amount of proceeds is allocated to Share capital. Transaction costs in connection with such offerings are allocated to the liability and equity units components in proportion to the allocation of proceeds.

Provisions

Provisions represent liabilities to the Company for which the amount or timing is uncertain. Provisions are recognized when the Company has a present legal or constructive obligation as a result of past events, such as organizational restructuring, when it is probable that an outflow of resources will be required to settle the obligation and where the amount can be reliably estimated. Provisions are not recognized for future operating losses.

Provisions are made for any contracts which are deemed onerous. A contract is onerous if the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received under it. Provisions for onerous contracts are measured at the present value of the lower of the expected cost of terminating the contract and the



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expected net cost of continuing with the contract. Present value is determined based on expected future cash flows that are discounted at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount is recognized in finance costs.

Revenue recognition

Sales of products

Revenues from the sale of goods are recognized when the Company has transferred to the buyer the significant risks and rewards of ownership of the goods (which is at the time the goods are shipped), when the Company retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold, when the amount of revenues can be measured reliably, when it is probable that the economic benefits associated with the transaction will flow to the Company and when the costs incurred or to be incurred in respect of the transaction can be measured reliably.

Royalty revenues

The Company had deferred recognition of proceeds received in December 2008 from Healthcare Royalty Partners L.P. (formerly Cowen Healthcare Royalty Partners L.P. ) ("HRP") relating to the Company's rights to royalties on future sales of Cetrotide<sup>®</sup> covered by a license agreement with ARES Trading S.A. ("Merck Serono") in which the latter had been granted worldwide marketing, distribution and selling rights, except in Japan, for Cetrotide<sup>®</sup>, a compound used for in vitro fertilization.

The Company recognized the proceeds received from HRP as royalty revenues over the life of the underlying royalty sale arrangement, pursuant to the "units-of-revenue" method. Under that method, periodic royalty revenues are calculated as the ratio of the remaining deferred revenue amount to the total estimated remaining royalties that Merck Serono expected to pay to HRP over the term of the underlying arrangement multiplied by the royalty payments due to HRP for the period.

As mentioned in note 6 – Discontinued operations, from April 3, 2013 to October 1, 2013, the Company accelerated the amortization of the remaining deferred revenues.

Licensing revenues and multiple element arrangements

The Company is currently in a phase in which certain potential products are being further developed or marketed jointly with partners and licensees. Existing licensing agreements usually foresee one-time payments (upfront payments), payments for R&D services in the form of cost reimbursements, milestone payments and royalty receipts for licensing and marketing product candidates. Revenues associated with those multiple-element arrangements are allocated to the various elements based on their relative fair value.

Agreements containing multiple elements are divided into separate units of accounting if certain criteria are met, including whether the delivered element has stand-alone value to the customer and whether there is objective and reliable evidence of the fair value of the undelivered obligation(s). The consideration received is allocated among the separate units based on each unit's fair value, and the applicable revenue recognition criteria are applied to each of the separate units.

License fees representing non-refundable payments received at the time of signature of license agreements are recognized as revenue upon signature of the license agreements when the Company has no significant future performance obligations and collectibility of the fees is probable. Upfront payments received at the beginning of licensing agreements are deferred and recognized as revenue on a systematic basis over the period during which the related services are rendered and all obligations are performed.

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Milestone payments

Milestone payments, which are generally based on developmental or regulatory events, are recognized as revenue when the milestones are achieved, collectibility is assured, and when the Company has no significant future performance obligations in connection with the milestones.

Share-based compensation costs

The Company operates an equity-settled share-based compensation plan under which the Company receives services from directors, senior executives, employees and other collaborators as consideration for equity instruments of the Company.

The Company accounts for all forms of share-based compensation using the fair value-based method. Fair value of stock options is determined at the date of grant using the Black-Scholes option pricing model, which includes estimates of the number of awards that are expected to vest over the vesting period. Where granted share options vest in installments over the vesting period (defined as graded vesting), the Company treats each installment as a separate share option grant. Share-based compensation expense is recognized over the vesting period, or as specified vesting conditions are satisfied, and credited to Other Capital.

Any consideration received by the Company in connection with the exercise of stock options is credited to Share Capital. Any Other Capital component of the share-based compensation is transferred to Share Capital upon the issuance of shares.

Current and deferred income tax

Income tax on profit or loss comprises current and deferred tax. Tax is recognized in profit or loss, except that a change attributable to an item of income or expense recognized as other comprehensive (loss) income or directly in equity (deficit) is also recognized directly in other comprehensive (loss) income or directly in equity (deficit). Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation and establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

The current income tax charge is calculated in accordance with tax rates and laws that have been enacted or substantively enacted by the reporting date in the countries where the Company's subsidiaries operate and generate taxable income.

Deferred income tax is recognized on temporary differences (other than, where applicable, temporary differences associated with unremitted earnings from foreign subsidiaries and associates to the extent that the investment is essentially permanent in duration, and temporary differences associated with the initial recognition of goodwill) arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements and on unused tax losses or R&D non-refundable tax credits in the Group. Deferred income tax is determined using tax rates and laws that have been enacted or substantively enacted by the reporting date.

Deferred income tax assets are recognized only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilized.

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred income taxes assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities where there is an intention to settle the balances on a net basis.

Research and development costs

Research costs are expensed as incurred. Development costs are expensed as incurred, except for those that meet generally accepted criteria for deferral, in which case, the costs are capitalized and amortized to operations over the estimated period of benefit. No development costs have been capitalized during any of the periods presented.



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Research and development refundable tax credits and grants

The Company's German subsidiary is entitled to receive research grants from the German Federal Ministry of Education and Research. Funding is earned on qualified projects, and corresponding expenses are reimbursed at a certain rate of eligible base amounts.

Refundable R&D tax credits and grants are accounted for using the cost reduction method. Accordingly, refundable R&D tax credits and grants are recorded as a reduction of the related expenses or capital expenditures in the period the expenses are incurred, provided that the Company has reasonable assurance the refundable R&D tax credits or grants will be realized.

Discontinued operations

A discontinued operation is a component of the Company that has been disposed of, or is classified as held for sale, and represents a separate major line of business or geographical area of operations and/or is part of a single co-ordinated plan to dispose of a separate major line of business or geographical area of operations. Classification as a discontinued operation occurs upon the earlier of the disposal of the operation (or disposal group) or the date at which the operation meets the criteria for classification as held for sale. When an operation is classified as discontinued, comparative statements of comprehensive (loss) income and cash flows are presented as if the operations had been discontinued at the beginning of the earliest comparative period presented.

Net (loss) income per share

Basic net (loss) income per share is calculated using the weighted average number of common shares outstanding during the year.

Diluted net (loss) income per share is calculated based on the weighted average number of common shares outstanding during the year, plus the effects of dilutive common share equivalents, such as stock options and share purchase warrants. This method requires that diluted net (loss) income per share be calculated using the treasury stock method, as if all common share equivalents had been exercised at the beginning of the reporting period, or period of issuance, as the case may be, and that the funds obtained thereby were used to purchase common shares of the Company at the average trading price of the common shares during the period.

3 Critical accounting estimates and judgments

The preparation of consolidated financial statements in accordance with IFRS requires management to make judgments, estimates and assumptions that affect the reported amounts of the Company's assets, liabilities, revenues, expenses and related disclosures. Judgments, estimates and assumptions are based on historical experience, expectations, current trends and other factors that management believes to be relevant at the time at which the Company's consolidated financial statements are prepared.

Management reviews, on a regular basis, the Company's accounting policies, assumptions, estimates and judgments in order to ensure that the consolidated financial statements are presented fairly and in accordance with IFRS. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

(a) Critical accounting estimates and assumptions

Critical accounting estimates and assumptions are those that have a significant risk of causing material adjustment and are often applied to matters or outcomes that are inherently uncertain and subject to change. As such, management cautions that future events often vary from forecasts and expectations and that estimates routinely require adjustment. The following discusses the most significant accounting estimates and assumptions that the Company has made in the preparation of the consolidated financial statements.

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Fair value of the warrant liability and stock options

Determining the fair value of the warrant liability and stock options requires judgment related to the choice of a pricing model, the estimation of stock price volatility and the expected term of the underlying instruments. Any changes in the estimates or inputs utilized to determine fair value could result in a significant impact on the Company's future operating results, liabilities or other components of shareholders' equity (deficiency). Fair value assumptions used are described in notes 15 – Warrant liability and 17 – Share capital.

Goodwill impairment

The annual impairment assessment related to goodwill is based on estimates that are derived from current market capitalization and on other factors, including assumptions related to relevant industry-specific market analyses. Future events, including a significant reduction in the Company's share price, could cause the assumptions utilized in the impairment tests to change, resulting in a potentially adverse effect on the Company's future results due to increased impairment charges.

Employee future benefits

The determination of expenses and obligations associated with employee future benefits requires the use of assumptions, such as the discount rate to measure obligations, the projected age of employees upon retirement, the expected rate of future compensation and estimated employee turnover. Because the determination of the cost and obligations associated with employee future benefits requires the use of various assumptions, there is measurement uncertainty inherent in the actuarial valuation process. Actual results will differ from results that are estimated based on the aforementioned assumptions. Additional information is included in note 19 – Employee future benefits.

Income taxes

The estimation of income taxes includes evaluating the recoverability of deferred tax assets based on an assessment of Group entities' ability to utilize the underlying future tax deductions against future taxable income prior to expiry of those deductions. Management assesses whether it is probable that some or all of the deferred income tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income, which in turn is dependent upon the successful commercialization of the Company's products. To the extent that management's assessment of any Group entity's ability to utilize future tax deductions changes, the Company would be required to recognize more or fewer deferred tax assets, and future income tax provisions or recoveries could be affected. Additional information is included in note 22 – Income taxes.

(b) Critical judgments in applying the Company's accounting policies

Revenue recognition

Management's assessments related to the recognition of revenues related to arrangements containing multiple elements are based on judgment. Judgment is necessary to identify separate units of accounting and to allocate related consideration to each separate unit of accounting. Where deferral of upfront payments or license fees is deemed appropriate, subsequent revenue recognition is often determined based upon the assessment of the Company's continuing involvement in the arrangement, the benefits expected to be derived by the customer and, where applicable, expected patent lives. Additional information is included in note 5 – Development, commercialization and licensing arrangements.

4 Recent accounting pronouncements

Adopted in 2014

The following new standards and amendments to standards are effective for the first time for interim periods beginning on or after January 1, 2014 and have been applied in preparing these consolidated financial statements. The accounting policies have been applied consistently by all subsidiaries of the Company.



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In May 2013, the IASB made amendments to the disclosure requirements of IAS 36, Impairment of Assets, requiring disclosure, in certain instances, of the recoverable amount of an asset or CGU, and the basis for the determination of fair value less costs of disposal, when an impairment loss is recognized or when an impairment loss is subsequently reversed.

In May 2013, the IFRS Interpretations Committee ("IFRIC") issued International Financial Reporting Standard Interpretation 21, Levies ("IFRIC 21"), an interpretation on the accounting for levies imposed by governments. IFRIC 21 is an interpretation of IAS 37, Provisions, Contingent Liabilities and Contingent Assets ("IAS 37"). IAS 37 sets out criteria for the recognition of a liability, one of which is the requirement for the entity to have a present obligation as a result of a past event (known as an obligating event). IFRIC 21 clarifies that the obligating event that gives rise to a liability to pay a levy is the activity described in the relevant legislation that triggers the payment of the levy.

The adoption of these standards and amendments did not have a significant impact on the Company's consolidated financial statements.

Not yet adopted

The final version of IFRS 9, Financial Instruments ("IFRS 9"), was issued by the IASB in July 2014 and will replace IAS 39, Financial Instruments: Recognition and Measurement. IFRS 9 introduces a model for classification and measurement, a single, forward-looking expected loss impairment model and a substantially reformed approach to hedge accounting. The new single, principle-based approach for determining the classification of financial assets is driven by cash flow characteristics and the business model in which an asset is held. The new model also results in a single impairment model being applied to all financial instruments, which will require more timely recognition of expected credit losses. It also includes changes in respect of an entity's own credit risk in measuring liabilities elected to be measured at fair value, so that gains caused by the deterioration of an entity's own credit risk on such liabilities are no longer recognized in profit or loss. IFRS 9, which is to be applied retrospectively, is effective for annual periods beginning on or after January 1, 2018 and is available for early adoption. In addition, an entity's own credit risk changes can be applied early in isolation without otherwise changing the accounting for financial instruments. The Company is currently assessing the impact, if any, that this new standard will have on the Company's consolidated financial statements.

In May 2014, the IASB issued IFRS 15, Revenue from Contracts with Customers. The objective of this new standard is to provide a single, comprehensive revenue recognition framework for all contracts with customers to improve comparability of financial statements of companies globally. This new standard contains principles that an entity will apply to determine the measurement of revenue and timing of when it is recognized. The underlying principle is that an entity will recognize revenue to depict the transfer of goods or services to customers at an amount that the entity expects to be entitled to receive in exchange for those goods or services. This new standard is effective for annual periods beginning on or after January 1, 2017. The Company is currently assessing the impact that this new standard may have on the Company's consolidated financial statements.

5Development, commercialization and licensing arrangements

Sinopharm arrangement

On December 1, 2014, the Company entered into a master collaboration agreement, a Technology Transfer and Technical Assistance Agreement ("TTA") and a License Agreement ("LA") with Sinopharm A-Think Pharmaceuticals Co., Ltd. ("Sinopharm") for the development, manufacture and commercialization of zoptarelin doxorubicin ("the Product") in all human uses, in the People's Republic of China, including Hong Kong and Macau (collectively, "the Territory"). Under the terms of the TTA, Sinopharm made a one-time, non-refundable payment of \$1,101,000 ("Transfer Fee") to the Company for the transfer of technical documentation and materials, know-how and technical assistance services. Additionally, per the LA, the Company will be entitled to receive additional consideration upon achieving certain milestones, including the occurrence of certain regulatory and commercial events in the Territory.

Furthermore, the Company will be entitled to royalties on future net sales of the Product in the Territory.

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The Company has substantial continuing involvement in the aforementioned arrangements, including the transfer of documentation, know-how and materials, as well as the provision of technical assistance, such as quality systems implementation, analytical and stability testing, territory-specific development initiatives, and other services. The Company has applied the provisions of IAS 18, Revenue, and has determined that all deliverables and performance obligations contemplated by the agreements with Sinopharm should be accounted for as a single unit of accounting, limited to amounts that are not contingent upon the delivery of additional items or the meeting of other specified performance conditions which are not known, probable or estimable at the time at which the agreements with Sinopharm were entered into.

The Company has deferred the non-refundable Transfer Fee and is amortizing the related payment as revenue on a straight-line basis over the period during which the aforementioned services are rendered and obligations are performed.

In determining the period over which Transfer Fee revenues are to be recognized, the Company concluded that its significant continuing involvement in the aforementioned agreements will span approximately four years, commencing in late December 2014. However, the Company may adjust the amortization period based on appropriate facts and circumstances not yet known, that would significantly change the duration of the Company's continuing involvement and performance obligations or benefits expected to be derived by Sinopharm.

Future milestones will be recognized as revenue individually and in full upon the actual achievement of the related milestone, given the substantive nature of each milestone. Lastly, upon initial commercialization and sale of the developed product, the Company will recognize royalty revenues as earned, based on the contractual percentage applied to the actual net sales achieved by Sinopharm, as per the LA.

Pursuant to the aforementioned agreements, the Company was required to remit to the Chinese tax authorities \$101,000 of the gross proceeds received from Sinopharm. This amount, which was withheld at the source, was recognized as income tax expense in the consolidated statement of comprehensive (loss) income in accordance with the provision of IAS 12, Income Taxes.

Ergomed agreement

On April 10, 2013, the Company entered into a co-development and revenue-sharing agreement ("CDRSA") with Ergomed Clinical Research Limited ("Ergomed"), pursuant to which Ergomed has agreed to assist the Company in the clinical development program for zoptarelin doxorubicin (the "Product") for the purpose of maximizing the commercialization potential of the Product with the ultimate aim of selling or licensing the Product. Concurrently with the execution of the CDRSA, the Company entered into a master services agreement ("MSA") with Ergomed for a clinical Phase 3 trial of the Product in endometrial cancer, pursuant to which Ergomed will provide clinical development services with respect to the co-development initiative referred to above.

Under the CDRSA, Ergomed will not charge the Company for 30% of the total costs up to a maximum of \$10,000,000. While Ergomed will not directly contribute any cash proceeds towards the completion of the activities contemplated by the CDRSA, Ergomed, as primary supplier of a substantial portion of the Product-related clinical and regulatory activities, will contribute to the overall funding of the initiative via the application of a 30% discount from the costs set forth in the MSA until the cumulative total of such reductions reaches a maximum of \$10,000,000.

Ergomed will be entitled to receive an agreed upon single-digit percentage of any future net income (as defined in the CDRSA) or other proceeds related to the licensing of received zoptarelin doxorubicin in endometrial cancer indication, up to a specified maximum amount.

The Company recognizes R&D costs associated with the CDRSA and MSA net of the 30% discount, as services are rendered by Ergomed in the consolidated statement of comprehensive (loss) income. During the years ended December 31, 2013 and 2014, the Company expensed a total of \$3,560,000 and \$7,195,000, respectively, pursuant to the CDRSA and MSA.



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#### Yakult agreement

On March 8, 2011, the Company had entered into an agreement with Yakult Honsha Co., Ltd. ("Yakult") for the development, manufacture and commercialization of perifosine in all human uses, excluding leishmaniasis, in Japan. Under the terms of this agreement, Yakult had made an initial, non-refundable gross upfront payment to the Company of €6,000,000 (approximately \$8,412,000). The Company applied the provisions of IAS 18, Revenue ("IAS 18"), and recognized deferred revenue, which was being amortized on a straight-line basis through the estimated end of the estimated life cycle of perifosine in colorectal cancer ("CRC") and multiple myeloma ("MM"), which was assumed to be the estimated expiry date of the applicable valid patent considering a five-year extension, or until July 2018.

On April 1, 2012, following disclosure of the results of the Phase 3 study of perifosine in CRC, the Company discontinued the perifosine program in that indication. Furthermore, in March 2013, following an analysis of interim results of the Phase 3 study of perifosine in MM, the Company also discontinued the development of perifosine in the MM indication.

Based on these events, the Company determined that it no longer had significant obligations under the agreement with Yakult to continue with the development of perifosine. Accordingly, the Company recognized, in March 2013, the remaining amount of deferred revenue of \$5,860,000 related to the above licensing agreement within License fees in the consolidated statement of comprehensive (loss) income.

#### 6 Discontinued operations

On April 3, 2013 (the "Effective Date"), the Company entered into a transfer and service agreement ("TSA") and concurrent agreements with various partners and licensees with respect to the manufacturing rights for Cetrotide<sup>®</sup>, marketed for therapeutic use as part of in vitro fertilization programs. The principal effect of these agreements was to transfer, effective October 1, 2013 (the "Closing Date"), the manufacturing rights for Cetrotide<sup>®</sup> and to grant a license to Merck Serono for the manufacture, testing, assembling, packaging, storage and release of Cetrotide<sup>®</sup> in all territories. Also per the TSA, the Company has agreed to provide certain transition services to Merck Serono over a period of 36 months from the Effective Date in order to assist Merck Serono in managing overall responsibility for the manufacturing of Cetrotide<sup>®</sup> and related activities (collectively, the "Cetrotide<sup>®</sup> Business").

Under the TSA, during the period commencing on the Effective Date and ending on the Closing Date (the "Interim Period"), the Company was obligated to continue to conduct the Cetrotide<sup>®</sup> Business in the ordinary course in a manner consistent with past practices, subject to certain conditions.

Per the TSA, the Company received a non-refundable, one-time payment of €2,500,000 (approximately \$3,300,000) in consideration for the transfer of the manufacturing rights referred to above, as well as other payments in exchange for the transfer, also on the Closing Date, of certain assets and equipment (see note 10 – Property, plant and equipment) used solely for the manufacture of Cetrotide<sup>®</sup>.

The Company has agreed to provide the aforementioned transition services in exchange for a monthly service fee, which is payable by Merck Serono. The related transition services revenues are recognized as License fees and other within net income from discontinued operations in the Company's consolidated statement of comprehensive (loss) income as the transition services are provided over the corresponding term of the transition services contract.

#### Impact of the TSA on previously deferred revenues

In 2008, the Company had monetized its royalty stream related to Cetrotide<sup>®</sup> via a transaction with HRP, which resulted, among other elements, in the payment by HRP to the Company of \$52,500,000, less certain transaction costs, in exchange for the Company's rights to royalties on future net sales of Cetrotide<sup>®</sup> generated by Merck Serono. The Company had initially recorded the proceeds received from HRP as deferred revenue due to the Company's significant continuing involvement with the Cetrotide<sup>®</sup> Business. Since then, the Company has amortized the deferred revenue into income (as Sales and royalties within net income from discontinued operations in the Company's consolidated statement of comprehensive (loss) income) over the life of the underlying license agreement, based on the

"units-of-revenue" method. Under that method, periodic royalty revenues were calculated by multiplying the ratio of the unamortized

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deferred revenue amount to the total estimated remaining royalties that Merck Serono expected to pay to HRP over the term of the underlying arrangement by the royalty payments due to HRP for the period.

Management has determined that, as of the Closing Date, there is no basis to continue amortizing the deferred revenue associated with HRP, primarily due to the fact that the Company no longer has significant continuing involvement in the Cetrotide® Business, as discussed above. As such, commencing on the Effective Date, the Company accelerated the amortization of the remaining deferred revenues of approximately \$31,875,000 over the Interim Period, by continuing to apply the units-of-revenue method, which is consistent with past practice. The remaining deferred revenues were fully amortized through the end of the Interim Period and were recorded as Sales and royalties within net income from discontinued operations in the Company's consolidated statement of comprehensive (loss) income. Presentation of Cetrotide® Business subsequent to the Closing Date

In accordance with the provisions of IFRS 5, Non-current Assets Held for Sale and Discontinued Operations, upon the transfer of substantially all of the risks and rewards associated with the Cetrotide® Business on the Closing Date, the Cetrotide® Business was classified as a discontinued operation. As such, relevant amounts in the consolidated statements of comprehensive (loss) income and cash flows have been retroactively reclassified to reflect the Cetrotide® Business as a discontinued operation.

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Components of the Company's net income from discontinued operations are summarized below.

|   | Years ended December 31, |        |        |
|---|--------------------------|--------|--------|
|   | 2014                     | 2013   | 2012   |
|   | \$                       | \$     | \$     |
| Revenues*   |                          |        |        |
| Sales and royalties   | —                        | 63,755 | 30,704 |
| License fees and other  | 1,037                    | 4,589  | 908    |
|   | 1,037                    | 68,344 | 31,612 |
| Operating expenses  |                          |        |        |
| Cost of sales   | —                        | 30,002 | 26,229 |
| Research and development costs, net of tax credits and grants                     | 25                       | 8      | 12     |
| Selling, general and administrative expenses                                      | 389                      | 4,279  | 2,639  |
|   | 414                      | 34,289 | 28,880 |
| Net income from discontinued operations   | 623                      | 34,055 | 2,732  |
| Components of operating expenses presented as discontinued include the following: |                          |        |        |
| Subcontractor fees  | —                        | 24,930 | 25,515 |
| Raw material purchases  | —                        | 579    | 1,189  |
| Change in inventory   | —                        | 4,173  | (560)  |
| Impairment of equipment   | —                        | 268    | —      |
| Depreciation of equipment   | —                        | 52     | 85     |
| Cost of sales   | —                        | 30,002 | 26,229 |
| Goods and services**  | 191                      | 2,987  | 2,651  |
| Royalty and patent expenses related to onerous contracts                          | 223                      | 1,300  | —      |
|   | 414                      | 34,289 | 28,880 |

In addition to recurring sales of Cetrotide®, the revenues presented above include the aforementioned non-refundable, one-time payment of €2,500,000 (approximately \$3,300,000), as well as royalty revenues of \$33,631,000 in 2013 (\$4,175,000 in 2012), which represent the amortization of proceeds received in connection with the Company's transaction with HRP.

\*\* Goods and services include professional fees, marketing services, insurance, travel and representation costs.

The SG&A expenses presented above for the year ended December 31, 2013 also include \$1,300,000 associated with the initial recognition of a provision for certain non-cancellable contracts related to the Cetrotide® Business that were deemed onerous due to the fact that management expects no economic benefits to flow to the Company following the transfer of the Cetrotide® Business on the Closing Date. The provisions for onerous contracts represent the present value of estimated unavoidable future royalty and patent costs associated with the intellectual property underlying Cetrotide®. The estimate may vary as a result of changes in estimated future royalty and patent costs. The unexpired term of these contracts is eight years as at December 31, 2014. See also note 16 – Provisions and other non-current liabilities.



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Components of the Company's net cash (used in) provided by operating activities of discontinued operations are summarized below.

|  | Years ended December 31, |          |          |
|--|--------------------------|----------|----------|
|  | 2014                     | 2013     | 2012     |
|  | \$                       | \$       | \$       |
| Cash flows from operating activities   |                          |          |          |
| Net income from discontinued operations  | 623                      | 34,055   | 2,732    |
| Items not affecting cash and cash equivalents:                                 |                          |          |          |
| Provision for onerous contracts  | 223                      | 1,300    | —        |
| Depreciation, amortization and impairment                                      | —                        | 320      | 85       |
| Amortization of deferred revenues  | —                        | (33,631  | ) (4,175 |
| Other non-cash items   | 96                       | —        | —        |
| Changes in operating assets and liabilities:                                   |                          |          |          |
| Trade and other receivables  | 1,460                    | 6,212    | (2,397   |
| Inventory  | —                        | 4,061    | (1,230   |
| Prepaid expenses and other current assets                                      | —                        | 882      | (760     |
| Payables and accrued liabilities   | (2,300                   | ) (2,996 | ) 611    |
| Provisions and other non-current liabilities                                   | (397                     | ) (56    | ) —      |
| Net cash (used in) provided by operating activities of discontinued operations | (295                     | ) 10,147 | (5,134   |
| 7Cash and cash equivalents   |                          |          |          |

|   | As at December 31, |        |
|---|--------------------|--------|
|   | 2014               | 2013   |
|   | \$                 | \$     |
| Cash on hand and balances with banks                              | 10,803             | 27,877 |
| Interest-bearing deposits with maturities of three months or less | 24,128             | 15,325 |
|   | 34,931             | 43,202 |

8Trade and other receivables

|                           | As at December 31, |       |
|---------------------------|--------------------|-------|
|                           | 2014               | 2013  |
|                           | \$                 | \$    |
| Trade accounts receivable | 583                | 1,709 |
| Value added tax           | 47                 | 2     |
| Other                     | 237                | 242   |
|                           | 867                | 1,953 |

9Restricted cash equivalents

In support of the Company's long-term operating lease obligation in Germany and in replacement of a related bank guarantee, the Company transferred approximately \$760,000 (\$865,000 in 2013) to a restricted cash account. The fixed amount, including any interest earned thereon, is restricted for as long as the underlying lease arrangement (note 25 – Commitments and contingencies) has not expired and therefore cannot be utilized for current purposes as at December 31, 2014.



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Notes to Consolidated Financial Statements

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## 10 Property, plant and equipment

Components of the Company's property, plant and equipment are summarized below.

|   | Cost                     |                        |                    |                        |         |
|---|--------------------------|------------------------|--------------------|------------------------|---------|
|   | Equipment                | Furniture and fixtures | Computer equipment | Leasehold improvements | Total   |
|   | \$                       | \$                     | \$                 | \$                     | \$      |
| At January 1, 2013                      | 9,444                    | 1,615                  | 1,754              | 1,144                  | 13,957  |
| Additions                               | 44                       | 15                     | 26                 | —                      | 85      |
| Disposals / Retirements                 | (853)                    | (452)                  | (8)                | —                      | (1,313) |
| Impact of foreign exchange rate changes | 419                      | 59                     | 80                 | 52                     | 610     |
| At December 31, 2013                    | 9,054                    | 1,237                  | 1,852              | 1,196                  | 13,339  |
| Additions                               | 16                       | 20                     | 86                 | 5                      | 127     |
| Disposals / Retirements                 | (1,212)                  | —                      | (182)              | —                      | (1,394) |
| Impact of foreign exchange rate changes | (1,046)                  | (151)                  | (222)              | (146)                  | (1,565) |
| At December 31, 2014                    | 6,812                    | 1,106                  | 1,534              | 1,055                  | 10,507  |
|   | Accumulated depreciation |                        |                    |                        |         |
|   | Equipment                | Furniture and fixtures | Computer equipment | Leasehold improvements | Total   |
|   | \$                       | \$                     | \$                 | \$                     | \$      |
| At January 1, 2013                      | 7,739                    | 1,511                  | 1,721              | 839                    | 11,810  |
| Disposals / Retirements                 | (822)                    | (352)                  | (8)                | —                      | (1,182) |
| Impairment loss*                        | 268                      | —                      | —                  | —                      | 268     |
| Recurring depreciation expense          | 461                      | 6                      | 30                 | 50                     | 547     |
| Impact of foreign exchange rate changes | 370                      | 57                     | 78                 | 40                     | 545     |
| At December 31, 2013                    | 8,016                    | 1,222                  | 1,821              | 929                    | 11,988  |
| Disposals / Retirements                 | (1,212)                  | —                      | (182)              | —                      | (1,394) |
| Impairment loss**                       | 206                      | —                      | —                  | —                      | 206     |
| Recurring depreciation expense          | 282                      | 17                     | 21                 | 51                     | 371     |
| Impact of foreign exchange rate changes | (979)                    | (152)                  | (212)              | (118)                  | (1,461) |
| At December 31, 2014                    | 6,313                    | 1,087                  | 1,448              | 862                    | 9,710   |

\* Related to equipment transferred to Merck Serono pursuant to the TSA (note 6 – Discontinued operations).

\*\* Related to R&D equipment impaired as a result of a restructuring (note 14 – Restructuring).

|                      | Carrying amount |                        |                    |                        |       |
|----------------------|-----------------|------------------------|--------------------|------------------------|-------|
|                      | Equipment       | Furniture and fixtures | Computer equipment | Leasehold improvements | Total |
|                      | \$              | \$                     | \$                 | \$                     | \$    |
| At December 31, 2013 | 1,038           | 15                     | 31                 | 267                    | 1,351 |
| At December 31, 2014 | 499             | 19                     | 86                 | 193                    | 797   |



## Aeterna Zentaris Inc.

## Notes to Consolidated Financial Statements

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Depreciation of \$577,000 (\$495,000 in 2013) is presented in the consolidated statement of comprehensive (loss) income as follows: \$530,000 (\$480,000 in 2013) in net R&D costs and \$47,000 (\$15,000 in 2013) in SG&A expenses. See also note 6 – Discontinued operations for depreciation expense related to discontinued operations.

## 11 Identifiable intangible assets

Identifiable intangible assets with finite useful lives consist entirely of in-process R&D costs, patents and trademarks. Changes in the carrying value of the Company's identifiable intangible assets with finite useful lives are summarized below.

|   | Year ended December 31, 2014 |                          |                | Year ended December 31, 2013 |                          |                |
|---|------------------------------|--------------------------|----------------|------------------------------|--------------------------|----------------|
|   | Cost                         | Accumulated amortization | Carrying value | Cost                         | Accumulated amortization | Carrying value |
|   | \$                           | \$                       | \$             | \$                           | \$                       | \$             |
| Balances – Beginning of the year        | 39,890                       | (39,182 )                | 708            | 38,172                       | (37,044 )                | 1,128          |
| Impairment loss*                        | —                            | (184 )                   | (184 )         | —                            | —                        | —              |
| Recurring amortization expense*         | —                            | (117 )                   | (117 )         | —                            | (454 )                   | (454 )         |
| Impact of foreign exchange rate changes | (4,858 )                     | 4,803                    | (55 )          | 1,718                        | (1,684 )                 | 34             |
| Balances – End of the year              | 35,032                       | (34,680 )                | 352            | 39,890                       | (39,182 )                | 708            |

\* Recorded as R&D costs in the consolidated statements of comprehensive (loss) income.

## 12 Goodwill

Goodwill has not been allocated to any specific CGU of the Group.

The change in carrying value is as follows:

|   | Cost     | Accumulated impairment loss | Carrying amount |
|---|----------|-----------------------------|-----------------|
|   | \$       | \$                          | \$              |
| Balance as at January 1, 2013           | 9,466    | —                           | 9,466           |
| Impact of foreign exchange rate changes | 426      | —                           | 426             |
| Balance as at December 31, 2013         | 9,892    | —                           | 9,892           |
| Impact of foreign exchange rate changes | (1,205 ) | —                           | (1,205 )        |
| Balance as at December 31, 2014         | 8,687    | —                           | 8,687           |

## 13 Payables and accrued liabilities

|  | As at December 31, |       |
|--|--------------------|-------|
|  | 2014               | 2013  |
|  | \$                 | \$    |
| Trade accounts payable                                   | 3,153              | 4,802 |
| Accrued research and development costs                   | 1,073              | 666   |
| Salaries, employment taxes and benefits                  | 560                | 402   |
| Current portion of onerous contract provisions (note 16) | 322                | 441   |
| Other accrued liabilities                                | 691                | 931   |
|  | 5,799              | 7,242 |



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#### 14 Restructuring

On August 7, 2014, the Company's Nominating, Governance and Compensation Committee approved the Company's global resources optimization program (the "Resource Optimization Program"), which has been rolled out as part of a strategy to transition Aeterna Zentaris into a commercially operating specialty biopharmaceutical organization. The Resource Optimization Program, the goal of which is to streamline R&D activities and increase commercial operations and flexibility, is expected to result in the ultimate termination of 30 employees at the Company. As at December 31, 2014, management estimates that remaining staff departures will occur through August 31, 2015. Restructuring costs are recognized in the consolidated statement of comprehensive (loss) income when the Company has a detailed formal plan for the restructuring and has raised a valid expectation in those affected that it will carry out the restructuring by starting to implement that plan or announcing the plan's main features to those affected by it. Upon approval of the Resource Optimization Program, a provision for restructuring costs was recorded. Total restructuring costs associated with the Resource Optimization Program include severance payments, onerous lease provision and other directly related costs, and have been recorded as follows in the accompanying consolidated statement of comprehensive (loss) income: \$2,201,000 in R&D costs, and \$288,000 in SG&A expenses. This estimate may vary as a result of changes in the underlying assumptions applied thereto, including, but not limited to, the number of employees that will ultimately depart from the Company.

The change in the Company's provision for restructuring costs can be summarized as follows:

|   | Year ended<br>December 31,<br>2014 |   |
|---|------------------------------------|---|
|   | \$                                 |   |
| Balance – Beginning of the year         | —                                  |   |
| Provision recognized                    | 2,489                              |   |
| Utilization of provision                | (687                               | ) |
| Impact of foreign exchange rate changes | (151                               | ) |
| Balance – End of the year               | 1,651                              |   |
| Less: non-current portion               | (146                               | ) |
|   | 1,505                              |   |

#### 15 Warrant liability

The change in the Company's warrant liability can be summarized as follows:

|  | Years ended December 31, |          |          |
|--|--------------------------|----------|----------|
|  | 2014                     | 2013     | 2012     |
|  | \$                       | \$       | \$       |
| Balance – Beginning of the year                          | 18,010                   | 6,176    | 9,204    |
| Share purchase warrants issued during the year (note 17) | 8,487                    | 13,397   | 4,100    |
| Share purchase warrants exercised during the year        | —                        | —        | (382     |
| Change in fair value of share purchase warrants          | (18,272                  | ) (1,563 | ) (6,746 |
|  | 8,225                    | 18,010   | 6,176    |

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Notes to Consolidated Financial Statements

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A summary of the activity related to the Company's share purchase warrants is provided below.

|                                 | Years ended December 31, |  | 2013         |  | 2012      |  |
|---------------------------------|--------------------------|--|--------------|--|-----------|--|
|                                 | 2014                     |  | 2013         |  | 2012      |  |
|                                 | Number                   | Weighted average exercise price (US\$) | Number       | Weighted average exercise price (US\$) | Number    | Weighted average exercise price (US\$) |
| Balance – Beginning of the year | 20,107,410               | 2.34                                   | 4,407,410    | 5.14                                   | 1,511,179 | 8.62                                   |
| Issued                          | 8,800,000                | 1.25                                   | * 15,700,000 | 1.55                                   | 2,970,000 | 3.45                                   |
| Exercised                       | —                        | —                                      | —            | —                                      | (52,383 ) | 8.24                                   |
| Expired                         | (122,221 )               | 7.50                                   | —            | —                                      | (21,386 ) | 9.00                                   |
| Balance – End of the year       | 28,785,189               | 1.87                                   | 20,107,410   | 2.34                                   | 4,407,410 | 5.14                                   |

\* As adjusted (note 17 – Share capital)

The following table summarizes the share purchase warrants outstanding and exercisable as at December 31, 2014:

| Exercise price | Warrants outstanding and exercisable |   |
|----------------|--------------------------------------|---|
|                | Number                               | Weighted average remaining contractual life (years) |
| 1.20           | 1,605,000                            | 3.90  |
| 1.25           | 20,295,000                           | 3.96  |
| 1.85           | 2,600,000                            | 3.58  |
| 3.45           | 2,970,000                            | 2.80  |
| 8.24           | 530,424                              | 0.47  |
| 9.00           | 740,737                              | 0.80  |
| 10.29          | 44,028                               | 0.46  |
|                | 28,785,189                           | 3.65  |

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The table presented below shows the inputs and assumptions applied to the Black-Scholes option pricing model in order to determine the fair value of warrants outstanding as at December 31, 2014.

|                                 | Number of equivalent shares | Market-value per share price (\$) | Weighted average exercise price (\$) | Risk-free annual interest rate (a) | Expected volatility (b) | Expected life (years) (c) | Expected dividend yield (d) |
|---------------------------------|-----------------------------|-----------------------------------|--------------------------------------|------------------------------------|-------------------------|---------------------------|-----------------------------|
| April 2010 Investor Warrants    | 740,737                     | 0.60                              | 9.00                                 | 0.25%                              | 98.72%                  | 0.80                      | 0.00%                       |
| June 2010 Investor Warrants     | 530,424                     | 0.60                              | 8.24                                 | 0.25%                              | 125.73%                 | 0.47                      | 0.00%                       |
| June 2010 Compensation Warrants | 44,028                      | 0.60                              | 10.29                                | 0.25%                              | 127.70%                 | 0.46                      | 0.00%                       |
| October 2012 Investor Warrants  | 2,970,000                   | 0.60                              | 3.45                                 | 1.01%                              | 106.74%                 | 2.80                      | 0.00%                       |
| July 2013 Warrants              | 2,600,000                   | 0.60                              | 1.85                                 | 1.26%                              | 98.57%                  | 3.58                      | 0.00%                       |
| November 2013 Warrants          | 13,100,000                  | 0.60                              | 1.24                                 | * 1.34%                            | 95.78%                  | 3.90                      | 0.00%                       |
| January 2014 Investor Warrants  | 8,800,000                   | 0.60                              | 1.25                                 | * 1.38%                            | 94.51%                  | 4.03                      | 0.00%                       |

(a) Based on United States Treasury Government Bond interest rates with a term that is consistent with the expected life of the warrants.

(b) Based on the historical volatility of the Company's stock price over the most recent period consistent with the expected life of the warrants, as well as on future expectations.

(c) Based upon time to expiry from the reporting period date.

(d) The Company has not paid dividends nor intends to pay dividends in the foreseeable future.

\* Subject to adjustment (see note 17 – Share capital and note 28 – Subsequent events).

The Black-Scholes valuation methodology uses "Level 2" inputs in calculating fair value, as defined in IFRS 7, Financial Instruments: Disclosures and as discussed in note 24 – Financial instruments and financial risk management.

#### 16 Provisions and other non-current liabilities

|  | As at December 31, |       |
|--|--------------------|-------|
|  | 2014               | 2013  |
|  | \$                 | \$    |
| Onerous contract provisions (detailed below)                       | 1,014              | 1,291 |
| Non-current portion of provision for restructuring costs (note 14) | 146                | —     |
| Other  | 130                | 182   |
|  | 1,290              | 1,473 |

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Onerous contract provisions

|   | Cetrotide® onerous contracts* | Onerous lease** | Total  |
|---|-------------------------------|-----------------|--------|
|   | \$                            | \$              | \$     |
| Balance at January 1, 2014                                      | 1,296                         | 436             | 1,732  |
| Additional provision recognized                                 | 223                           | —               | 223    |
| Utilization of provision  | (397                          | ) (102          | ) (499 |
| Unwinding of discount and effect of change in the discount rate | (124                          | ) 4             | (120   |
| Balance at December 31, 2014                                    | 998                           | 338             | 1,336  |
| Less: current portion   | (218                          | ) (104          | ) (322 |
|   | 780                           | 234             | 1,014  |

\*Recorded following the transfer of the Cetrotide® Business, as discussed in note 6 – Discontinued operations.

Represents the present value of the future lease payments that the Company is obligated to make pursuant to a non-cancellable operating lease in the United States, net of estimated future sublease income. The estimate may vary as a result of changes in the utilization of the leased premises and of the sublease arrangement. The remaining term of the lease is three years as at December 31, 2014.

17 Share capital

The Company has an unlimited number of authorized common shares (being voting and participating shares) with no par value, as well as an unlimited number of preferred, first and second ranking shares, issuable in series, with rights and privileges specific to each class, with no par value.

Share consolidation

The 112,375,726 common shares issued and outstanding immediately prior to the Share Consolidation were consolidated into 18,729,288 common shares. The Company's outstanding stock options and share purchase warrants were adjusted on the same basis with proportionate adjustments being made to each stock option and share purchase warrant exercise price.

All share, option and share purchase warrant and per share, option and share purchase warrant data have been retroactively adjusted to reflect and give effect to the Share Consolidation as if it occurred at the beginning of the earliest period presented.

Common shares issued in connection with "At-the-Market" ("ATM") drawdowns

May 2013 ATM Program

On May 22, 2013, the Company entered into an ATM sales agreement (the "May 2013 ATM Program"), under which the Company was able, at its discretion and from time to time, to sell up to 2,500,000 of its common shares through ATM issuances on the NASDAQ for aggregate gross proceeds not to exceed \$4,600,000. The May 2013 ATM Program provided that common shares were to be sold at market prices prevailing at the time of sale and, as a result, prices may have varied.

Between January 1, 2014 and March 31, 2014, the Company issued a total of 201,960 common shares under the May 2013 ATM Program at an average price of approximately \$1.43 per share, resulting in aggregate gross proceeds of \$288,114, less cash transaction costs of \$8,600 and previously deferred transaction costs of \$17,000. The May 2013 ATM Program was subsequently discontinued in connection with the implementation of the May 2014 ATM Program described below.



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#### May 2014 ATM Program

On May 9, 2014, the Company entered into an ATM sales agreement (the "May 2014 ATM Program"), under which the Company is able, at its discretion and from time to time, to sell up to 14,018,692 of its common shares through ATM issuances on the NASDAQ for aggregate gross proceeds not to exceed \$15,000,000. The May 2014 ATM Program provides that common shares are to be sold at market prices prevailing at the time of sale and, as a result, prices may vary.

Between July 1, 2014 and December 31, 2014, the Company issued a total of 8,995,108 common shares under the May 2014 ATM Program at an average price of approximately \$1.36 per share for aggregate gross proceeds of \$12,218,000 less cash transaction costs of \$305,430 and previously deferred transaction costs of \$71,575.

#### Public offering

On January 14, 2014, the Company completed a public offering (the "January 2014 Offering") of 11,000,000 units, at a purchase price of \$1.20 per unit, with each unit consisting of one common share and 0.8 of a warrant to purchase a common share. The related warrants (the "January 2014 Warrants") represent the right to acquire an aggregate of 8,800,000 common shares, as discussed below.

Total cash proceeds raised through the January 2014 Offering amounted to \$13,200,000, less cash transaction costs of approximately \$1,034,000 and previously deferred transaction costs of \$5,000.

The Company issued the January 2014 Warrants to the investors who participated in the January 2014 Offering at an exercise price of \$1.25 per share, with the January 2014 Warrants containing certain anti-dilution provisions. These warrants are exercisable at any time during their five-year term and, upon complete exercise, would result in the issuance of an aggregate of 8,800,000 common shares that would generate additional proceeds for an amount that would be determined based on the then adjusted exercise price.

The Company estimated the fair value attributable to the January 2014 Warrants as of the date of grant by applying the Black-Scholes pricing model, to which the following additional assumptions were applied: a risk-free annual interest rate of 1.64%, an expected volatility of 102.31%, an expected life of 5 years and a dividend yield of 0.0%. As a result, the fair value of the share purchase warrants was estimated at \$8,487,000.

Total gross proceeds of the January 2014 Offering were allocated as follows: \$8,487,000 was allocated to Warrant liability, and the balance of \$4,713,000 was allocated to Share capital. Transaction costs were allocated to the liability and equity components in proportion to the allocation of proceeds. As such, an amount of \$666,000 was allocated to the share purchase warrants and immediately recognized in general and administrative expenses in the consolidated statement of comprehensive (loss) income, and an amount of \$373,000 was allocated to Share capital.

In connection with the January 2014 Offering, the holders of the November 2013 Warrants (see note 8 – Warrant liability) who participated in the January 2014 Offering agreed to waive certain anti-dilution provisions of such warrants solely in connection with the January 2014 Offering, and agreed to an adjustment of exercise price of such warrants following the closing of the January 2014 Offering from their original exercise price of \$1.60 per share to an exercise price equal to \$1.25 per share. For holders of the warrants issued in the November 2013 Offering who did not participate in the January 2014 Offering, the exercise price of the corresponding November 2013 Warrants held by the sole non-participating holder was further reduced by \$0.05 per share. See also note 28 – Subsequent events.

#### Shareholder rights plan

The Company has a shareholder rights plan (the "Rights Plan") that provides the Board of Directors and the Company's shareholders with additional time to assess any unsolicited take-over bid for the Company and, where appropriate, to pursue other alternatives for maximizing shareholder value. Under the Rights Plan, one right has been issued for each currently issued common share, and one right will be issued with each additional common share to be issued. The Rights Plan was most recently re-confirmed and approved by the Company's shareholders at its annual meeting of shareholders held on May 8, 2013.



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## Stock options

In December 1995, the Company's Board of Directors adopted a stock option plan (the "Stock Option Plan") for its directors, senior executives, employees and other collaborators who provide services to the Company. The total number of common shares that may be issued under the Stock Option Plan cannot exceed 11.4% of the total number of issued and outstanding common shares at any given time. The Company's Board of Directors amended the Stock Option Plan on March 20, 2014 and the Company's shareholders ratified the amendment on May 9, 2014.

Options granted under the Stock Option Plan prior to the 2014 amendment expire after a maximum period of ten years following the date of grant. Options granted after the 2014 amendment expire after a maximum period of seven years following the date of grant.

The following tables summarize the activity under the Stock Option Plan.

|                                 | Years ended December 31, |  |             |  |           |  |
|---------------------------------|--------------------------|--|-------------|--|-----------|--|
|                                 | 2014                     |  | 2013        |  | 2012      |  |
| US dollar-denominated options   | Number                   | Weighted average exercise price (US\$) | Number      | Weighted average exercise price (US\$) | Number    | Weighted average exercise price (US\$) |
| Balance – Beginning of the year | 1,759,794                | 3.40                                   | 1,328,492   | 4.27                                   | 287,950   | 11.59                                  |
| Granted                         | 1,951,500                | 0.93                                   | 630,000     | 1.56                                   | 1,060,445 | * 2.40                                 |
| Forfeited                       | (314,263 )               | 4.55                                   | (198,698 )* | 3.37                                   | (19,903 ) | 10.44                                  |
| Balance – End of the year       | 3,397,031                | 1.88                                   | 1,759,794   | 3.40                                   | 1,328,492 | 4.27                                   |

In addition to the stock options granted to employees, the Company granted during the year 2012, 125,000 stock options to a financial advisor and 66,666 stock options to an investor relations advisor. The 125,000 stock options \*were to vest upon the achievement of a certain strategic alliance transaction, which did not occur. Of the 66,666 stock options, 33,333 vested upon signature of the service agreement, and the remainder vested 90 days later. Both grants described herein were forfeited during the year 2013 upon termination of the service agreements.

|                                     | Years ended December 31, |   |           |   |            |   |
|-------------------------------------|--------------------------|---|-----------|---|------------|---|
|                                     | 2014                     |   | 2013      |   | 2012       |   |
| Canadian dollar-denominated options | Number                   | Weighted average exercise price (CAN\$) | Number    | Weighted average exercise price (CAN\$) | Number     | Weighted average exercise price (CAN\$) |
| Balance – Beginning of the year     | 652,779                  | 12.91                                   | 727,875   | 12.71                                   | 1,031,328  | 14.99                                   |
| Exercised*                          | —                        | —                                       | —         | —                                       | (25,582 )  | 8.51                                    |
| Forfeited                           | (81,679 )                | 7.50                                    | (9,932 )  | 12.61                                   | (57,437 )  | 15.07                                   |
| Expired                             | (76,994 )                | 36.62                                   | (65,164 ) | 10.77                                   | (220,434 ) | 23.22                                   |
| Balance – End of the year           | 494,106                  | 10.11                                   | 652,779   | 12.91                                   | 727,875    | 12.71                                   |

\*The weighted average share price at time of exercise was CAN\$11.25 for the year ended December 31, 2012.



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| US\$ options outstanding as at December 31, 2014                  |           |   |   |
|---|-----------|---|---|
| Exercise price (US\$)   | Number    | Weighted average remaining contractual life (years) | Weighted average exercise price (US\$)  |
| 0.76  | 1,136,500 | 6.93  | 0.76                                    |
| 1.07 to 1.11  | 450,000   | 6.35  | 1.07                                    |
| 1.12 to 2.15  | 995,000   | 8.25  | 1.46                                    |
| 2.16 to 2.92  | 520,520   | 7.93  | 2.17                                    |
| 2.93 to 10.17   | 119,166   | 4.74  | 3.47                                    |
| 10.18 to 21.78  | 175,845   | 6.43  | 11.56                                   |
|   | 3,397,031 | 7.29  | 1.88                                    |
| US\$ options exercisable as at December 31, 2014                  |           |   |   |
| Exercise price (US\$)   | Number    | Weighted average remaining contractual life (years) | Weighted average exercise price (US\$)  |
| 1.12 to 2.15  | 210,006   | 8.58  | 1.56                                    |
| 2.16 to 2.92  | 520,520   | 7.93  | 2.17                                    |
| 2.93 to 10.17   | 102,501   | 4.32  | 3.46                                    |
| 10.18 to 21.78  | 175,845   | 6.43  | 11.56                                   |
|   | 1,008,872 | 7.44  | 3.81                                    |
| CAN\$ options outstanding and exercisable as at December 31, 2014 |           |   |   |
| Exercise price (CAN\$)  | Number    | Weighted average remaining contractual life (years) | Weighted average exercise price (CAN\$) |
| 3.30 to 4.80  | 89,223    | 3.89  | 3.64                                    |
| 4.81 to 7.02  | 127,705   | 4.94  | 5.70                                    |
| 7.03 to 9.78  | 134,164   | 4.90  | 8.96                                    |
| 9.79 to 21.21   | 99,992    | 2.11  | 15.72                                   |
| 21.22 to 30.54  | 43,022    | 1.65  | 27.14                                   |
|   | 494,106   | 3.88  | 10.11                                   |

As at December 31, 2014, the total compensation cost related to unvested US Dollar stock options not yet recognized amounted to \$1,126,261 (\$533,206 in 2013). This amount is expected to be recognized over a weighted average period of 1.70 years (1.15 years in 2013).

The Company settles stock options exercised through the issuance of common shares from treasury.

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Fair value input assumptions for US dollar-denominated options granted

The table below shows the assumptions, or weighted average parameters, applied to the Black-Scholes option pricing model in order to determine share-based compensation costs over the life of the awards.

|  |     | Years ended December 31, |          |
|--|-----|--------------------------|----------|
|  |     | 2014                     | 2013     |
| Expected dividend yield                | (a) | 0.0%                     | 0.0%     |
| Expected volatility                    | (b) | 101.6%                   | 98.1%    |
| Risk-free annual interest rate         | (c) | 1.87%                    | 1.46%    |
| Expected life (years)                  | (d) | 6.16                     | 6.63     |
| Weighted average share price           |     | US\$0.93                 | US\$1.56 |
| Weighted average exercise price        |     | US\$0.93                 | US\$1.56 |
| Weighted average grant date fair value |     | US\$0.75                 | US\$1.26 |

(a) The Company has not paid dividends nor intends to pay dividends in the foreseeable future.

(b) Based on the historical volatility of the Company's stock price over the most recent period consistent with the expected life of the stock options, as well as on future expectations.

(c) Based on United States Treasury Government Bond interest rates with a term that is consistent with the expected life of the stock options.

(d) Based upon historical data related to the exercise of stock options, on post-vesting employment terminations and on future expectations related to exercise behaviour.

The Black-Scholes pricing models referred above use "Level 2" inputs in calculating fair value, as defined by IFRS 7, and as discussed in note 24 – Financial instruments and financial risk management.

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## 18 Operating expenses

Components of the Company's operating expenses from continuing operations include the following:

|  | Years ended December 31, |        |        |
|--|--------------------------|--------|--------|
|  | 2014                     | 2013   | 2012   |
|  | \$                       | \$     | \$     |
| Subcontractor fees   | —                        | 51     | —      |
| Raw material purchases   | —                        | —      | 591    |
| Cost of sales  | —                        | 51     | 591    |
| Key management personnel compensation <sup>(1)</sup>   |                          |        |        |
| Salaries and short-term employee benefits  | 2,405                    | 2,280  | 2,354  |
| Termination benefits   | 439                      | 1,438  | —      |
| Post-employment benefits   | 77                       | 58     | 957    |
| Share-based compensation costs   | 392                      | 1,795  | 941    |
|  | 3,313                    | 5,571  | 4,252  |
| Other employees compensation:  |                          |        |        |
| Salaries and short-term employee benefits  | 7,663                    | 7,955  | 8,473  |
| Termination benefits (note 14)   | 1,984                    | 7      | 189    |
| Post-employment benefits   | 832                      | 626    | 75     |
| Share-based compensation costs   | 105                      | 572    | 514    |
|  | 10,584                   | 9,160  | 9,251  |
| Goods and services <sup>(2)</sup>  | 19,016                   | 15,954 | 14,663 |
| Leasing costs, net of sublease receipts of \$344,000 in 2014, \$226,000 in 2013 and \$226,000 in 2012 <sup>(3)</sup> | 1,802                    | 1,879  | 1,751  |
| Refundable tax credits and grants  | (131                     | ) (517 | ) (868 |
| Onerous contract expenses resulting from the Resource Optimization Program (note 14)                                 | 563                      | —      | —      |
| Share-based compensation costs related to collaborators  | —                        | (148   | ) 342  |
| Transaction costs related to share purchase warrants   | 666                      | 1,165  | 370    |
| Depreciation and amortization  | 488                      | 949    | 1,050  |
| Impairment losses  | 390                      | —      | 184    |
| Operating foreign exchange losses (gains)  | 715                      | (413   | ) 203  |
|  | 23,509                   | 18,869 | 17,695 |
|  | 37,406                   | 33,651 | 31,789 |

(1) Key management includes the Company's directors and members of the executive management team.

(2) Goods and services include third-party R&D costs, laboratory supplies, professional fees, contracted sales force costs, marketing services, insurance and travel expenses.

(3) Leasing costs also include changes in the onerous lease provision (note 16 – Provisions and other non-current liabilities), other than attributable to the unwinding of the discount.

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On April 15, 2013, the Company appointed a new President and Chief Executive Officer ("CEO"), who also was appointed to the Company's Board of Directors. In accordance with his employment agreement, the Company's new President and CEO was granted, as a retention bonus, 375,000 share appreciation rights ("SARs"), pursuant to which he will be entitled to receive a future cash payment if he remains employed through a certain date. The retention bonus will be based on the increase, if any, in the company's share price from \$1.98 over a specified period of time. 175,000 SARs vested (and expired) on December 31, 2014, and the remaining 200,000 SARs will vest on December 31, 2015. The Company's former President and CEO received, upon termination of his employment, benefits of approximately \$1,438,000. Additionally, the Company's former President and CEO was permitted to retain all of his stock options, which, pursuant to IFRS 2, Share-based Payment, constitutes a modification to the terms of the existing stock options granted in a share-based payment transaction, by allowing such stock options to expire at the original expiry date, based on the original date of grant, despite the termination of employment. As a result of this modification, an amount of \$682,000, which corresponds to the compensation cost related to unvested stock options not yet recognized immediately before the modification and to the incremental fair value of the stock options, measured by comparing the stock options immediately before and immediately after the modification date, was recognized during the year ended December 31, 2013 within SG&A expenses in the consolidated statement of comprehensive (loss) income. Most of the employment agreements entered into between the Company and its executive officers include termination provisions, whereby the executive officers would be entitled to receive benefits that would be payable if the Company were to terminate the executive officers' employment without cause or if their employment is terminated following a change of control. Separation benefits generally are calculated based on an agreed-upon multiple of applicable base salary and incentive compensation and, in certain cases, other benefit amounts.

In addition to payments made to members of our key management team, during the years ended December 31, 2013 and 2014, the Company paid \$76,800 and \$38,000, respectively, in professional fees to one of the members of the Company's Board of Directors for special tasks mandated by the Company's Nominating, Corporate Governance and Compensation Committee.

#### 19 Employee future benefits

The Company's subsidiary in Germany provides unfunded defined benefit pension plans and unfunded post-employment benefit plans for certain groups of employees. Provisions for pension obligations are established for benefits payable in the form of retirement, disability and surviving dependent pensions.

The unfunded defined benefit pension plans are final salary pension plans, which provide benefits to members (or to their surviving dependents) in the form of a guaranteed level of pension payable for life. The level of benefits provided depends on the members' length of service and on their base salary in the final years leading up to retirement. Current pensions vary in accordance to applicable statutory requirements, which foresee an adjustment, every three years on an individual basis, that is based on inflationary increases or in relation to salaries of comparable groups of active employees in the Company. An adjustment may be denied by the Company if the Company's financial situation does not allow for an increase in pensions. These plans are unfunded, and the Company meets benefit payment obligations as they fall due.

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The following table presents the changes in the aforementioned plans' accrued benefit obligations:

|   | Pension benefit plans    |         |         | Other benefit plans      |       |       |
|---|--------------------------|---------|---------|--------------------------|-------|-------|
|   | Years ended December 31, |         |         | Years ended December 31, |       |       |
|   | 2014                     | 2013    | 2012    | 2014                     | 2013  | 2012  |
|   | \$                       | \$      | \$      | \$                       | \$    | \$    |
| Balance – Beginning of year   | 14,646                   | 16,062  | 11,769  | 762                      | 1,169 | 1,111 |
| Current service cost  | 176                      | 219     | 139     | 24                       | 57    | 134   |
| Interest cost   | 476                      | 421     | 491     | 25                       | 31    | 46    |
| Actuarial loss (gain) arising from changes in financial assumptions | 1,833                    | (2,346) | 3,705   | (96)                     | (258) | 79    |
| Benefits paid   | (411)                    | (357)   | (337)   | (210)                    | (274) | (219) |
| Impact of foreign exchange rate changes                             | (2,101)                  | 647     | 295     | (72)                     | 36    | 18    |
| Balance – End of year   | 14,619                   | 14,646  | 16,062  | 433                      | 761   | 1,169 |
| Amounts recognized:   |                          |         |         |                          |       |       |
| In comprehensive (loss) income                                      | (652)                    | (640)   | (630)   | 47                       | 170   | (259) |
| In other comprehensive income(loss)                                 | 268                      | 1,699   | (4,000) | 72                       | (36)  | (18)  |

The cumulative amount of actuarial losses recognized in other comprehensive (loss) income as at December 31, 2014 is approximately \$4,336,000 (approximately \$2,503,000 as at December 31, 2013 and approximately \$4,849,000 as at December 31, 2012).

The significant actuarial assumptions applied to determine the Company's accrued benefit obligations are as follows:

|                               | Pension benefit plans    |              |              | Other benefit plans      |      |      |
|-------------------------------|--------------------------|--------------|--------------|--------------------------|------|------|
|                               | Years ended December 31, |              |              | Years ended December 31, |      |      |
|                               | 2014                     | 2013         | 2012         | 2014                     | 2013 | 2012 |
|                               | %                        | %            | %            | %                        | %    | %    |
| Actuarial assumptions         |                          |              |              |                          |      |      |
| Discount rate                 | 2.00                     | 3.37         | 2.60         | 2.00                     | 3.37 | 2.60 |
| Pension benefits increase     | 1.80                     | 2.00         | 2.00         | 1.80                     | 2.00 | 2.00 |
| Rate of compensation increase | 2.00                     | 2.75 to 3.75 | 2.75 to 3.75 | 2.00                     | 2.75 | 2.75 |

Assumptions regarding future mortality are set based on actuarial advice in accordance with published statistics and experience in Germany. These assumptions translate into an average remaining life expectancy in years for a pensioner retiring at age 65:

|  | 2014 | 2013 | 2012 |
|--|------|------|------|
| Retiring at the end of the reporting period:             |      |      |      |
| Male   | 19   | 19   | 19   |
| Female   | 23   | 23   | 23   |
| Retiring 20 years after the end of the reporting period: |      |      |      |
| Male   | 22   | 22   | 22   |
| Female   | 26   | 26   | 26   |



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The most recent actuarial reports give effect to the pension and post-employment benefit obligations as at December 31, 2014. The next actuarial reports are planned for December 31, 2015.

The calculation of the pension benefit obligation is sensitive to the discount rate assumption set out above. From December 31, 2012 to December 31, 2014, management determined that the discount rate assumption should be adjusted as a result of relevant changes in the European economic environment.

Additionally, given recent developments in the European economic environment, an increase of 0.25% in the discount rate shown above is considered reasonably possible over the next financial year. Were such a fluctuation to occur, the effect of this change on the pension benefit obligation presented as at December 31, 2014 would be a decrease of approximately \$600,000.

In accordance with the assumptions used as at December 31, 2014, undiscounted defined pension benefits expected to be paid are as follows:

|            |        |
|------------|--------|
|            | \$     |
| 2015       | 495    |
| 2016       | 502    |
| 2017       | 512    |
| 2018       | 531    |
| 2019       | 553    |
| Thereafter | 19,867 |
|            | 22,460 |

The weighted average duration of the defined benefit obligation is 17.3 years.

Total expenses for the Company's defined contribution plan in its German subsidiary amounted to approximately \$232,954 for the year ended December 31, 2014 (\$228,771 for 2013 and \$331,287 for 2012).

#### 20 Finance income and finance costs

Components of the Company's finance income and finance costs can be summarized as follows:

|  | Years ended December 31, |         |       |
|--|--------------------------|---------|-------|
|  | 2014                     | 2013    | 2012  |
|  | \$                       | \$      | \$    |
| Finance income   |                          |         |       |
| Change in fair value of warrant liability                | 18,272                   | 1,563   | 6,746 |
| Gains due to changes in foreign currency exchange rates  | 1,879                    | —       | —     |
| Interest income  | 168                      | 185     | 228   |
|  | 20,319                   | 1,748   | 6,974 |
| Finance costs  |                          |         |       |
| Losses due to changes in foreign currency exchange rates | —                        | (1,512) | (382) |
|  | 20,319                   | 236     | 6,592 |

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## 21 Supplemental disclosure of cash flow information

|  | Years ended December 31, |          |          |
|--|--------------------------|----------|----------|
|  | 2014                     | 2013     | 2012     |
|  | \$                       | \$       | \$       |
| Changes in operating assets and liabilities: |                          |          |          |
| Trade and other receivables                  | (578                     | ) (3     | ) 2,526  |
| Inventory                                    | —                        | 112      | 670      |
| Prepaid expenses and other current assets    | (2,453                   | ) (6,454 | ) (4,154 |
| Payables and accrued liabilities             | 1,732                    | (900     | ) (2,447 |
| Other non-current assets                     | (204                     | ) (124   | ) (364   |
| Deferred revenues                            | 1,101                    | —        | —        |
| Provision for restructuring costs (note 14)  | (687                     | ) —      | —        |
| Employee future benefits (note 19)           | (621                     | ) (631   | ) (556   |
| Provisions and other non-current liabilities | (163                     | ) 10     | (49      |
|  | (1,873                   | ) (7,990 | ) (4,374 |

During the year ended December 31, 2012, the Company paid approximately \$259,000 in income taxes in the form of foreign jurisdiction withholding tax on payments received pursuant to the licensing agreement entered into with Yakult, as discussed in note 5 – Development, commercialization and license arrangements.

During the year ended December 31, 2014, the Company paid approximately \$101,000 in income taxes in the form of foreign jurisdiction withholding tax on payments received pursuant to the agreements entered into with Sinopharm, as discussed in note 5 – Development, commercialization and license arrangements.

## 22 Income taxes

Significant components of current and deferred income tax expense:

|   | Years ended December 31, |         |         |
|---|--------------------------|---------|---------|
|   | 2014                     | 2013    | 2012    |
|   | \$                       | \$      | \$      |
| Current tax expense                               | 111                      | —       | —       |
| Deferred tax:                                     |                          |         |         |
| Origination and reversal of temporary differences | 10,246                   | (4,253  | ) 7,282 |
| Adjustments in respect of prior years             | 5                        | 418     | 44      |
| Change in unrecognized tax assets                 | (10,251                  | ) 3,835 | (7,326  |
| Income tax expense                                | 111                      | —       | —       |

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The reconciliation of the combined Canadian federal and provincial income tax rate to the income tax expense is provided below:

|  | Years ended December 31, |         |         |   |
|--|--------------------------|---------|---------|---|
|  | 2014                     | 2013    | 2012    |   |
| Combined Canadian federal and provincial statutory income tax rate                 | 26.9                     | % 26.9  | % 26.9  | % |
|  | Years ended December 31, |         |         |   |
|  | 2014                     | 2013    | 2012    |   |
|  | \$                       | \$      | \$      |   |
| Income tax (expense) recovery based on combined statutory income tax rate          | 4,426                    | (1,833  | ) 5,494 |   |
| Change in unrecognized tax assets  | (10,251                  | ) 3,835 | (7,326  | ) |
| Permanent difference attributable to the use of local currency for tax reporting   | 145                      | (892    | ) 14    |   |
| Permanent difference attributable to net change in fair value of warrant liability | 4,408                    | (217    | ) 1,182 |   |
| Share-based compensation costs   | (133                     | ) (596  | ) (421  | ) |
| Difference in statutory income tax rate of foreign subsidiaries                    | 1,398                    | (809    | ) 997   |   |
| Permanent difference attributable to unrealized foreign exchange gain/loss         | 18                       | 131     | (22     | ) |
| Foreign withholding tax  | (111                     | ) —     | —       |   |
| Adjustments in respect of prior years  | 5                        | 418     | 44      |   |
| Other  | (16                      | ) (37   | ) 38    |   |
|  | (111                     | ) —     | —       |   |

Income tax expense of \$111,000 for the year ended December 31, 2014 represents current taxation in the form of foreign jurisdiction tax withholdings on payments pursuant to the licensing agreement entered into with Sinopharm (note 5 – Development, commercialization and licensing arrangements).

Deferred income tax assets are recognized to the extent that the realization of the related tax benefit through reversal of temporary differences and future taxable profits is probable.

Income (loss) before income taxes

Income (loss) before income taxes is attributable to the Company's tax jurisdictions as follows:

|               | Years ended December 31, |           |           |   |
|---------------|--------------------------|-----------|-----------|---|
|               | 2014                     | 2013      | 2012      |   |
|               | \$                       | \$        | \$        |   |
| Germany       | (29,672                  | ) (19,784 | ) (23,690 | ) |
| Canada        | 12,867                   | (7,639    | ) 322     |   |
| United States | (271                     | ) 183     | 224       |   |
|               | (17,076                  | ) (27,240 | ) (23,144 | ) |

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Significant components of deferred tax assets and liabilities:

|  | As at December 31, |        |
|--|--------------------|--------|
|  | 2014               | 2013   |
|  | \$                 | \$     |
| Deferred tax assets                    |                    |        |
| Non-current:                           |                    |        |
| Operating losses carried forward       | 2,139              | 2,465  |
| Intangible assets                      | 7,918              | 10,080 |
|  | 10,057             | 12,545 |
| Deferred tax liabilities               |                    |        |
| Current:                               |                    |        |
| Deferred revenues                      | 941                | 1,262  |
|  | 941                | 1,262  |
| Non-current:                           |                    |        |
| Property, plant and equipment          | 17                 | 50     |
| Deferred revenues                      | 7,979              | 10,157 |
| Warrant liability                      | 1,116              | 1,076  |
| Other                                  | 4                  | —      |
|  | 9,116              | 11,283 |
|  | 10,057             | 12,545 |
| Deferred tax assets (liabilities), net | —                  | —      |

Significant components of unrecognized deferred tax assets are as follows:

|                                       | As at December 31, |        |
|---------------------------------------|--------------------|--------|
|                                       | 2014               | 2013   |
|                                       | \$                 | \$     |
| Deferred tax assets                   |                    |        |
| Current:                              |                    |        |
| Onerous contract and other provisions | 102                | 87     |
|                                       | 102                | 87     |
| Non-current:                          |                    |        |
| Operating losses carried forward      | 62,094             | 59,813 |
| Research and development costs        | 10,987             | 11,988 |
| Unused tax credits                    | 9,517              | 10,386 |
| Employee future benefits              | 2,455              | 2,135  |
| Property, plant and equipment         | 1,175              | 1,260  |
| Share issue expenses                  | 817                | 712    |
| Onerous contract provisions           | 198                | 435    |
| Intangible assets                     | 227                | 248    |
| Other                                 | 296                | —      |
|                                       | 87,766             | 86,977 |
| Unrecognized deferred tax assets      | 87,868             | 87,064 |



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As at December 31, 2014, amounts and expiry dates of tax attributes to be deferred for which no deferred tax asset was recognized were as follows:

|      | Canada  |            |
|------|---------|------------|
|      | Federal | Provincial |
|      | \$      | \$         |
| 2028 | 9,582   | 3,790      |
| 2029 | 5,716   | 5,694      |
| 2030 | 4,897   | 4,879      |
| 2031 | 2,091   | 2,073      |
| 2032 | 5,071   | 5,071      |
| 2033 | 4,439   | 4,439      |
| 2034 | 5,074   | 5,074      |
|      | 36,870  | 31,020     |

The Company has estimated non-refundable R&D tax credits of approximately \$9,517,000 which can be carried forward to reduce Canadian federal income taxes payable and which expire at dates ranging from 2018 to 2033. Furthermore, the Company has unrecognized tax assets in respect of operating losses to be carried forward in Germany and in the United States. The losses amount to approximately \$167,837,000 in Germany, for which there is no expiry date and to \$698,000 in the United States, which expire as follows:

|      | United States |
|------|---------------|
|      | \$            |
| 2028 | 369           |
| 2029 | 178           |
| 2034 | 151           |
|      | 698           |

The operating loss carryforwards and the tax credits claimed are subject to review, and potential adjustment, by tax authorities.

Other deductible temporary differences for which tax assets have not been booked are not subject to a time limit, except for share issue expenses which are amortizable over five years.

### 23 Capital disclosures

The Company's objective in managing capital, consisting of shareholders' equity, with cash and cash equivalents and restricted cash equivalents being its primary components, is to ensure sufficient liquidity to fund R&D activities, SG&A expenses, working capital and capital expenditures.

Over the past several years, the Company has increasingly raised capital via public equity offerings and drawdowns under various ATM sales programs as our primary source of liquidity, as discussed in note 17 – Share capital.

The capital management objective of the Company remains the same as that in previous periods. The policy on dividends is to retain cash to keep funds available to finance the activities required to advance the Company's product development portfolio and to pursue appropriate commercial opportunities as they may arise.

The Company is not subject to any capital requirements imposed by any regulators or by any other external source.

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As at December 31, 2014 and December 31, 2013 and for the years ended December 31, 2014, 2013 and 2012 (tabular amounts in thousands of US dollars, except share/option/warrant and per share/option/warrant data and as otherwise noted)

## 24 Financial instruments and financial risk management

Financial assets (liabilities) as at December 31, 2014 and December 31, 2013 are presented below.

| December 31, 2014                           | Loans and<br>receivables | Financial<br>liabilities at<br>FVTPL | Other<br>financial<br>liabilities | Total   |
|---|--------------------------|--------------------------------------|-----------------------------------|---------|
|   | \$                       | \$                                   | \$                                | \$      |
| Cash and cash equivalents (note 7)          | 34,931                   | —                                    | —                                 | 34,931  |
| Trade and other receivables (note 8)        | 796                      | —                                    | —                                 | 796     |
| Restricted cash equivalents (note 9)        | 760                      | —                                    | —                                 | 760     |
| Payables and accrued liabilities (note 13)  | —                        | —                                    | (5,256)                           | (5,256) |
| Provision for restructuring costs (note 14) | —                        | —                                    | (1,105)                           | (1,105) |
| Warrant liability (note 15)                 | —                        | (8,225)                              | —                                 | (8,225) |
| Other non-current liabilities (note 16)     | —                        | —                                    | (130)                             | (130)   |
|   | 36,487                   | (8,225)                              | (6,491)                           | 21,771  |

  

| December 31, 2013                          | Loans and<br>receivables | Financial<br>liabilities at<br>FVTPL | Other<br>financial<br>liabilities | Total    |
|--|--------------------------|--------------------------------------|-----------------------------------|----------|
|  | \$                       | \$                                   | \$                                | \$       |
| Cash and cash equivalents (note 7)         | 43,202                   | —                                    | —                                 | 43,202   |
| Trade and other receivables (note 8)       | 1,899                    | —                                    | —                                 | 1,899    |
| Restricted cash equivalents (note 9)       | 865                      | —                                    | —                                 | 865      |
| Payables and accrued liabilities (note 13) | —                        | —                                    | (6,687)                           | (6,687)  |
| Warrant liability (note 15)                | —                        | (18,010)                             | —                                 | (18,010) |
| Other non-current liabilities (note 16)    | —                        | —                                    | (140)                             | (140)    |
|  | 45,966                   | (18,010)                             | (6,827)                           | 21,129   |

## Fair value

The Black-Scholes valuation methodology uses "Level 2" inputs in calculating fair value, as defined in IFRS 7, which establishes a hierarchy that prioritizes the inputs used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurement) and the lowest priority to unobservable inputs (Level 3 measurement). The input levels discussed in IFRS 7 are:

Level 1 Unadjusted quoted prices in active markets for identical assets or liabilities.

Level 2 Inputs other than quoted prices included within Level 1 that are observable for an asset or liability, either directly (i.e. prices) or indirectly (i.e. derived from prices).

Level 3 Inputs for an asset or liability that are not based on observable market data (unobservable inputs).

The carrying values of the Company's cash and cash equivalents, trade and other receivables, restricted cash equivalents, payables and accrued liabilities, provision for restructuring costs and other non-current liabilities approximate their fair values due to their short-term maturities or to the prevailing interest rates of the related instruments, which are comparable to those of the market.

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Financial risk factors

The following provides disclosures relating to the nature and extent of the Company's exposure to risks arising from financial instruments, including credit risk, liquidity risk and market risk (share price risk and currency risk), and how the Company manages those risks.

(a) Credit risk

Credit risk is the risk of an unexpected loss if a customer or counterparty to a financial instrument fails to meet its contractual obligations. The Company regularly monitors credit risk exposure and takes steps to mitigate the likelihood of this exposure resulting in losses. The Company's exposure to credit risk currently relates to cash and cash equivalents, trade and other receivables and restricted cash equivalents. The Company holds its available cash in amounts that are readily convertible to known amounts of cash and deposits its cash balances with financial institutions that are rated the equivalent of "Baa1" and above. This information is supplied by independent rating agencies where available and, if not available, the Company uses publicly available financial information to ensure that it invests its cash in creditworthy and reputable financial institutions.

As at December 31, 2014, trade accounts receivable for an amount of approximately \$289,000 were with three counterparties.

As at December 31, 2014, no trade accounts receivable were past due or impaired.

Generally, the Company does not require collateral or other security from customers for trade accounts receivable; however, credit is extended following an evaluation of creditworthiness. In addition, the Company performs ongoing credit reviews of all of its customers and establishes an allowance for doubtful accounts when accounts are determined to be uncollectible.

The maximum exposure to credit risk approximates the amount recognized in the Company's consolidated statement of financial position.

(b) Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they become due. As indicated in note 23 – Capital disclosures, the Company manages this risk through the management of its capital structure. It also manages liquidity risk by continuously monitoring actual and projected cash flows. The Board of Directors reviews and approves the Company's operating and capital budgets, as well as any material transactions occurring outside of the ordinary course of business. The Company has adopted an investment policy in respect of the safety and preservation of its capital to ensure the Company's liquidity needs are met. The instruments are selected with regard to the expected timing of expenditures and prevailing interest rates.

The Company expects to continue to incur operating expenses and may require significant capital to fulfill its future obligations in absence of sufficient corresponding revenues. The Company's ability to continue future operations beyond December 31, 2015 and to fund its activities is dependent on its ability to secure additional financings, which may be completed in a number of ways, including but not limited to licensing arrangements, partnerships, promotional arrangements, the issuance of securities and other financing activities. Management will pursue such additional sources of financing when required, and while the Company has been successful in securing financing in the past, there can be no assurance it will be able to do so in the future or that these sources of funding or initiatives will be available or on terms acceptable to the Company.

(c) Market risk

Share price risk

The change in fair value of the Company's warrant liability, which is measured at FVTPL, results from the periodic "mark-to-market" revaluation, via the application of the Black-Scholes option pricing model, of currently outstanding share purchase warrants. The Black-Scholes valuation is impacted, among other inputs, by the market



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price of the Company's common shares. As a result, the change in fair value of the warrant liability, which is reported as finance income (costs) in the accompanying consolidated statements of comprehensive (loss) income, has been and may continue in future periods to be materially affected most notably by changes in the Company's common share closing price, which on the NASDAQ, has ranged from \$0.52 to \$1.50 during the year ended December 31, 2014. If variations in the market price of our common shares of -10% and +10% were to occur, the impact on the Company's net (loss) income related to the warrant liability held at December 31, 2014 would be as follows:

|  | Carrying amount | -10%  | +10%   |   |
|--|-----------------|-------|--------|---|
|  | \$              | \$    | \$     |   |
| Warrant liability                                | 8,225           | 1,117 | (1,147 | ) |
| Total impact on net loss – decrease / (increase) |                 | 1,117 | (1,147 | ) |

Foreign currency risk

Since the Company operates internationally, it is exposed to currency risks as a result of potential exchange rate fluctuations related to non-intragroup transactions. In particular, fluctuations in the US dollar exchange rates against the EUR could have a potentially significant impact on the Company's results of operations.

If foreign exchange rate variations of -5% (depreciation of the EUR) and +5% (appreciation of the EUR) against the US\$, from period-end rates of EUR1 = US\$1.2101 were to occur, the impact on the Company's net (loss) income for each significant category of financial instruments held at December 31, 2014 would be as follows:

|  | Carrying amount | Balances denominated in US\$ |        |   |
|--|-----------------|------------------------------|--------|---|
|  | \$              | -5%                          | +5%    |   |
|  | \$              | \$                           | \$     |   |
| Cash and cash equivalents                        | 25,184          | 1,259                        | (1,259 | ) |
| Warrant liability                                | 8,225           | (411                         | ) 411  |   |
| Total impact on net loss – decrease / (increase) |                 | 848                          | (848   | ) |

## 25 Commitments and contingencies

The Company is committed to various operating leases for its premises. Expected future minimum lease payments and future minimum sublease receipts under non-cancellable operating leases (subleases), as well as future payments in connection with utility service agreements, as at December 31, 2014 are as follows:

|                  | Minimum lease payments | Minimum sublease receipts |   |
|------------------|------------------------|---------------------------|---|
|                  | \$                     | \$                        |   |
| Less than 1 year | 1,678                  | (392                      | ) |
| 1 - 3 years      | 1,352                  | (493                      | ) |
| 4 - 5 years      | 325                    | (19                       | ) |
| Total            | 3,355                  | (904                      | ) |

The Company is party to a lease arrangement in Germany for laboratory, office and storage space. The original term of the lease is ten years, expiring in March 2016, and the lease has an automatic renewal provision if not terminated by the Company at least 12 months prior to expiry. Over the lease term, minimum lease payments may be increased or decreased based on fluctuations in the German consumer price index. The Company does not expect to allow the lease arrangement to automatically renew and is examining options for alternative space to accommodate remaining German-



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based staff. As such, the minimum lease payments presented above exclude any lease payments for the Company's German subsidiary beyond March 2016.

As discussed in note 9 – Restricted cash equivalents, the Company transferred approximately \$760,000 to a restricted cash account in support of the aforementioned lease arrangement. Upon expiry of the underlying arrangement, the restricted funds will be released and made available for current operating purposes.

In October 2007, the Company entered into a \$100,000 letter of credit agreement in favour of a landlord in the United States with respect to the Company's long-term lease obligation. In August 2009 and November 2011, the amount of the letter of credit was reduced to \$75,000 and \$50,000, respectively, as per the original landlord-tenant agreement, and is payable to the landlord in the event that the Company fails to perform any of its obligations under the related lease agreement.

#### Contingencies

In the normal course of operations, the Company may become involved in various claims and legal proceedings related to, for example, contract terminations and employee-related and other matters. No contingent liabilities have been accrued as at December 31, 2014 or 2013.

#### Class Action Lawsuit

The Company and certain of its current and former officers are defendants in a purported class-action lawsuit pending in the United States District Court for the District of New Jersey, brought on behalf of stockholders of the Company. The lawsuit, which was filed on November 11, 2014, alleges violations of the Securities Exchange Act of 1934 in connection with allegedly false and misleading statements made by the defendants between April 2, 2012 and November 6, 2014, or the Class Period, regarding the safety and efficacy of Macrilen™, a product that the Company developed for use in the diagnosis of adult growth hormone deficiency, and the prospects for the approval of the Company's new drug application for the product by the U.S. Food and Drug Administration. The plaintiffs seek to represent a class comprised of purchasers of the Company's common shares during the Class Period and seek damages, costs and expenses and such other relief as determined by the court.

The Company's directors' and officers' insurance policies ("D&O Insurance") provide for reimbursement of costs and expenses incurred in connection with this lawsuit, including legal and professional fees, as well as potential damages awarded, if any, subject to certain policy restrictions, limits and deductibles. The Company believes that the D&O Insurance covers the lawsuit; however, the insurers have reserved their rights to raise all of the rights, entitlements and defences available to them under the D&O Insurance. If the D&O Insurance does cover the lawsuit, the Company will be required to pay legal and professional fees, as well as potential damages awarded in an amount equal to a substantial self-insured retention. Legal and professional fees are expensed as incurred and no reserve is established for them.

While the Company believes that it has meritorious defenses and intends to defend this lawsuit vigorously, it cannot predict the outcome. Accordingly, the Company has not recorded any liability related to the lawsuit. No assurance can be given with respect to the ultimate outcome of such proceedings, and the amount of any damages awarded in such lawsuit could be substantial.

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26 Net (loss) income per share

The following table sets forth pertinent data relating to the computation of basic and diluted net (loss) income per share attributable to common shareholders.

|   | Years ended December 31, |            |            |
|---|--------------------------|------------|------------|
|   | 2014                     | 2013       | 2012       |
|   | \$                       | \$         | \$         |
| Net loss from continuing operations   | (17,187                  | ) (27,240  | ) (23,144  |
| Net income from discontinued operations   | 623                      | 34,055     | 2,732      |
| Net (loss) income   | (16,564                  | ) 6,815    | (20,412    |
| Basic weighted average number of shares outstanding   | 59,024,730               | 29,476,455 | 19,775,073 |
| Dilutive effect of stock options  | —                        | —          | 31,614     |
| Diluted weighted average number of shares outstanding   | 59,024,730               | 29,476,455 | 19,806,687 |
| Items excluded from the calculation of diluted net (loss) income per share because the exercise price was greater than the average market price of the common shares or due to their anti-dilutive effect |                          |            |            |
| Stock options   | 2,324,175                | 2,115,453  | 1,183,388  |
| Warrants (number of equivalent shares)  | 28,785,189               | 7,141,879  | 1,803,730  |

For the year ended December 31, 2012, the diluted net loss per share was the same as the basic net loss per share, since the effect of the assumed exercise of stock options and warrants to purchase common shares is anti-dilutive. Accordingly, the diluted net loss per share for this period was calculated using the basic weighted average number of shares outstanding.

The weighted average number of shares is influenced most notably by share issuances made in connection with financing activities, such as registered direct and public offerings and ATM drawdowns, which resulted in the issuance of a total of 20,197,068 (see note 17 – Share capital), 19,982,721 and 7,790,973 common shares during the years ended December 31, 2014, 2013 and 2012, respectively. See also note 28 – Subsequent events.

27 Segment information

The Company operates in a single operating segment, being the biopharmaceutical segment.

Geographical information

The Company is domiciled in Canada and, for the three years ended December 31, 2014, has derived all of its revenues from its operating subsidiaries domiciled in Germany.

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Revenues by geographical area are detailed as follows:

|                                | Years ended December 31, |        |        |
|--------------------------------|--------------------------|--------|--------|
|                                | 2014                     | 2013   | 2012   |
|                                | \$                       | \$     | \$     |
| United States                  | 6                        | 33,640 | 5,158  |
| Switzerland                    | 956                      | 34,081 | 24,406 |
| Japan                          | 61                       | 6,586  | 4,062  |
| Other                          | 25                       | 212    | 39     |
|                                | 1,048                    | 74,519 | 33,665 |
| Amounts presented:             |                          |        |        |
| Within discontinued operations | 1,037                    | 68,344 | 31,612 |
| Within continuing operations   | 11                       | 6,175  | 2,053  |
|                                | 1,048                    | 74,519 | 33,665 |

Revenues have been allocated to geographic regions based on the country of residence of the Company's external customers or partners.

Non-current assets\* by geographical area are detailed as follows:

|               | As at December 31, |        |
|---------------|--------------------|--------|
|               | 2014               | 2013   |
|               | \$                 | \$     |
| Germany       | 9,778              | 11,928 |
| United States | —                  | 16     |
| Canada        | 58                 | 7      |
|               | 9,836              | 11,951 |

\* Non-current assets include property, plant and equipment, identifiable intangible assets and goodwill.

Major customers representing 10% or more of the Company's revenues in each of the last three years are as follows:

|            | Years ended December 31, |        |        |
|------------|--------------------------|--------|--------|
|            | 2014                     | 2013   | 2012   |
|            | \$                       | \$     | \$     |
| Company 1* | 956                      | 34,081 | 24,406 |
| Company 2* | —                        | 33,640 | 4,175  |
| Company 3  | —                        | 5,952  | 1,040  |

\* Related to the Cetrotide® Business (see note 6 – Discontinued operations).

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#### 28 Subsequent events

On March 11, 2015, the Company completed a public offering of 59,677,420 units (the "Units"), generating net proceeds of approximately \$34.5 million, with each Unit consisting of either one common share or one warrant to purchase one common share ("Series C Warrant"), 0.75 of a warrant to purchase one common share ("Series A Warrant") and 0.50 of a warrant to purchase one common share ("Series B Warrant"), at a purchase price of \$0.62 per Unit (the "March 2015 Offering"). The Series A Warrants are exercisable for a period of five years at an exercise price of \$0.81 per share, and the Series B Warrants are exercisable for a period of 18 months at an exercise price of \$0.81 per share. Both the Series A and Series B warrants are subject to certain anti-dilution provisions. The Series C Warrants are exercisable for a period of five years at an exercise price of \$0.62 per share. Total gross proceeds payable to the Company in connection with the exercise of the Series C Warrants have been pre-paid by investors and therefore are included in the aforementioned proceeds.

In connection with the March 2015 Offering, the holders of 21,123,332 of the 21,900,000 outstanding warrants issued by the Company in connection with the November 2013 Offering and the January 2014 Offering entered into an amendment agreement that caused such previously issued warrants to expire and terminate in exchange of a cash payment made by the Company in the aggregate amount of approximately \$5.7 million.

Item 19. Exhibits

Exhibit Index

- 1.1 Restated Certificate of Incorporation and Restated Articles of Incorporation of the Registrant (incorporated by reference to Exhibit 99.2 to the Registrant's report on Form 6-K furnished to the Commission on May 25, 2011)
- 1.2 Certificate of Amendment and Articles of Amendment of the Registrant (incorporated by reference to Exhibit 99.2 to the Registrant's report on Form 6-K furnished to the Commission on October 3, 2012)
- 1.3 Amended and Restated By-Law One of the Registrant (incorporated by reference to Exhibit 1.3 of the Registrant's Annual Report on Form 20-F for the financial year ended December 31, 2012 filed with the Commission on March 21, 2013)
- 2.1 Amended and Restated Shareholder Rights Plan Agreement between the Registrant and Computershare Trust Company of Canada dated as at March 29, 2010 (incorporated by reference to Exhibit 99.1 to the Registrant's report on Form 6-K furnished to the Commission on March 29, 2010)
- 4.1 Second Amended and Restated Stock Option Plan of the Registrant (incorporated by reference to Exhibit 4.1 of the Registrant's Annual Report on Form 20-F for the financial year ended December 31, 2013 filed with the Commission on March 21, 2014)
- 4.2 Employment Agreement dated November 1, 2013 between Jude Dinges and a subsidiary of the Registrant (incorporated by reference to Exhibit 4.4 of the Registrant's Annual Report on Form 20-F for the financial year ended December 31, 2013 filed with the Commission on March 21, 2014)
- 4.3 Employment Agreement dated April 15, 2013 between David A. Dodd and a subsidiary of the Registrant (incorporated by reference to Exhibit 4.5 of the Registrant's Annual Report on Form 20-F for the financial year ended December 31, 2013 filed with the Commission on March 21, 2014)
- 4.4 Service Contract dated January 1, 2014 between Richard Sachse, MD and Aeterna Zentaris GmbH, a subsidiary of the Registrant (incorporated by reference to Exhibit 4.8 of the Registrant's Annual Report on Form 20-F for the financial year ended December 31, 2013 filed with the Commission on March 21, 2014)
- 4.5 Employment agreement dated November 11, 2013 between Keith Santorelli and a subsidiary of the Registrant
- 4.6 Amendment #1 to employment agreement dated May 29, 2014 between a subsidiary of the Registrant and Keith Santorelli
- 4.7 Amendment to Amended Employment Agreement dated as at June 20, 2007 among the Registrant, Aeterna Zentaris, Inc. and Dennis Turpin (incorporated by reference to Exhibit 4.8 of the Registrant's Annual Report on Form 20-F for the financial year ended December 31, 2007 filed with the Commission on March 28, 2008)
- 4.8 Termination of the Change of Control Program letter dated June 14, 2013 from the Registrant to Dennis Turpin (incorporated by reference to Exhibit 4.10 of the Registrant's Annual Report on Form 20-F for the financial year ended December 31, 2013 filed with the Commission on March 21, 2014)
- 4.9 Master Collaboration Agreement by and between Aeterna Zentaris GmbH, a subsidiary of the Registrant, and Sinopharm A-think Pharmaceuticals Co., Ltd, dated as of December 1, 2014 (incorporated by reference to Exhibit 99.2 of the Registrant's report on Form 6-K furnished to the Commission on December 11, 2014).
- 4.10 License Agreement by and between Aeterna Zentaris GmbH, a subsidiary of the Registrant, and Sinopharm A-think Pharmaceuticals Co., Ltd, dated as of December 1, 2014 (incorporated by reference to Exhibit 99.3 of the Registrant's report on Form 6-K furnished to the Commission on December 11, 2014).
- 4.11 Technology Transfer and Technical Assistance, Agreement by and between Aeterna Zentaris GmbH, a subsidiary of the Registrant, and Sinopharm A-think Pharmaceuticals Co., Ltd, dated as of December 1, 2014 (incorporated by reference to Exhibit 99.4 of the Registrant's report on Form 6-K furnished to the Commission on December 11, 2014).
- 8.1 Subsidiaries of the Registrant
- 11.1 Code of Ethical Conduct of the Registrant (incorporated by reference to Exhibit 11.1 of the Registrant's Annual Report on Form 20-F for the financial year ended December 31, 2008 filed with the Commission on March 30, 2009)
- 11.2 Code of Business Conduct and Ethics for Members of the Board of Directors

- 11.3 Audit Committee Charter of the Registrant
- 12.1 Certification of the Principal Executive Officer pursuant to §302 of the Sarbanes-Oxley Act of 2002
- 12.2 Certification of the Principal Financial Officer pursuant to §302 of the Sarbanes-Oxley Act of 2002
- 13.1 Certification of the Principal Executive Officer pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
- 13.2 Certification of the Principal Financial Officer pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
- 15.1 Consent of the Independent Auditors

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

AETERNA ZENTARIS INC.

/s/ Dennis Turpin

Dennis Turpin, CPA, CA  
Senior Vice President and Chief Financial Officer

Date: March 17, 2015

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