

Aeterna Zentaris Inc.
Form SUPPL
October 15, 2012
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Filed pursuant to General Instruction II.L of Form F-10
File No. 333-181714

This prospectus supplement, together with the accompanying short form base shelf prospectus dated June 8, 2012 to which it relates, as amended or supplemented, and each document incorporated or deemed to be incorporated by reference into this prospectus supplement and the accompanying prospectus, constitutes a public offering of these securities only in those jurisdictions where such securities may be lawfully offered for sale and therein only by persons permitted to sell such securities. No securities regulatory authority has expressed an opinion about these securities and it is an offense to claim otherwise.

Information has been incorporated by reference into this prospectus supplement and the short form base shelf prospectus dated June 8, 2012 from documents filed with the United States Securities and Exchange Commission and with securities commissions or similar authorities in Canada. Copies of the documents incorporated herein by reference may be obtained on request without charge from the secretary of Aeterna Zentaris Inc. at 1405 du Parc-Technologique Blvd., Quebec City, Quebec, Canada, G1P 4P5, tel. (418) 652-8525 and are also available electronically at www.sec.gov/edgar.shtml or www.sedar.com.

New Issue

PROSPECTUS SUPPLEMENT NO. 1

(TO SHORT FORM BASE SHELF PROSPECTUS DATED JUNE 8, 2012)

US\$16,500,000

**Units Consisting of One Common Share and 0.45 of a Warrant
to Purchase One Common Share**

US\$2.50 per Unit

Aeterna Zentaris Inc. (we , us or the Company) is hereby offering 6,600,000 units (the Units) at a price of US\$2.50 per Unit, with each Unit being comprised of one common share of our capital (the Common Shares) and 0.45 of a warrant to purchase one Common Share (each a Warrant), pursuant to this prospectus supplement and the accompanying short form base shelf prospectus dated June 8, 2012. Each Warrant has an exercise price of US\$3.45 per Common Share. The Warrants will be immediately exercisable and expire five years from the date of issuance. The Units will not be certificated and the Common Shares and the Warrants will be issued separately but will be purchased together in this offering. This offering of Units is being conducted pursuant to the Company 's effective shelf registration statement on Form F-10, its corresponding Canadian base shelf prospectus and an exemption from the *Autorité des marchés financiers* permitting the Company to offer Common Shares and warrants in the United States. See Exemptive Relief Granted by the *Autorité des marchés financiers* on page S-43. The distribution of the Warrants and the Common Shares issuable upon the exercise of the Warrants is qualified and registered by this prospectus supplement and the accompanying prospectus. The Units will be issued and sold pursuant to an underwriting agreement dated October 12, 2012 between the Company and Roth Capital Partners, LLC.

Unless otherwise stated, currency amounts in this prospectus supplement are stated in United States dollars, or \$ or US\$.

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Our Common Shares are listed on the NASDAQ Global Market (NASDAQ) under the symbol AEZS and on the Toronto Stock Exchange (TSX) under the symbol AEZ . On October 11, 2012, the last reported sales price of our Common Shares on NASDAQ was \$3.12 per share and on TSX was C\$3.06 per share.

Investing in our Common Shares and Warrants involves a high degree of risk. There is no established public trading market for the Warrants, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the Warrants on any national securities exchange or other nationally recognized trading system. This may affect the pricing of the Warrants in the secondary market, the transparency and availability of trading prices, the liquidity of the Warrants, and the extent of issuer regulation. See Risk Factors beginning on page S-9 of this prospectus supplement and the risk factors described in the documents incorporated by reference herein for information that should be considered before investing in our Common Shares and Warrants.

	Per Unit	Total
Public offering price⁽¹⁾	\$ 2.50	\$ 16,500,000
Underwriting discounts and commissions⁽²⁾	\$ 0.15	\$ 990,000
Proceeds, before expenses, to us	\$ 2.35	\$ 15,510,000

(1) The proceeds shown exclude proceeds that we may receive upon exercise of the Warrants.

(2) We have agreed to reimburse the underwriters for certain out-of-pocket expenses incurred by them in connection with this offering. See Underwriting on page S-31 for additional information on these arrangements.

Delivery of the Units, comprised of Common Shares and Warrants, is expected to be made on or about October 17, 2012. We estimate the total expenses of this offering, excluding underwriting commissions and discounts, to be approximately \$325,000.

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Roth Capital Partners, LLC, as principal, is conditionally offering the Units, subject to prior sale, when, as and if issued and accepted by it in accordance with the terms and conditions in the underwriting agreement referred to under "Underwriting", and subject to the approval of legal matters by its counsel, including other conditions contained in the underwriting agreement, such as the receipt by Roth Capital Partners, LLC, of officer's certificates and legal opinions. Subject to the terms and conditions set forth in the underwriting agreement, Roth Capital Partners, LLC, has agreed to purchase all of the Units sold under the underwriting agreement if any of these Units are purchased. Roth Capital Partners, LLC has advised us that it does not intend to engage in any over-allotment or stabilization activities in connection with the offering of Units. The offering price of the Units sold under the underwriting agreement and the exercise price for the Warrants was determined by negotiation between us and Roth Capital Partners, LLC. After the initial offering of Units pursuant to this prospectus supplement, the public offering price, concession or any other term of the offering may be changed. See "Underwriting" beginning on page S-31 of this prospectus supplement.

We are a foreign private issuer under the securities laws of the United States (U.S.) and are permitted, under a multi-jurisdictional disclosure system (MJDS) adopted in the U.S. and Canada, to prepare this prospectus supplement and the accompanying prospectus in accordance with Canadian disclosure requirements. You should be aware that such requirements are different from those in the U.S. The financial statements included in or incorporated by reference into this prospectus supplement and the accompanying prospectus have been prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board. Our consolidated financial statements are subject to Canadian generally accepted auditing standards and auditor independence standards, in addition to the standards of the Public Company Accounting Oversight Board (United States) and the U.S. Securities and Exchange Commission (SEC) independence standards, and thus may not be comparable to financial statements of U.S. companies.

The Units offered hereby are not being offered for sale to the public in Canada under this prospectus supplement. See "Exemptive Relief Granted by the Autorité des Marchés Financiers" on page S-43 and "Underwriting" beginning on page S-31. The acquisition of the securities described herein may subject you to tax consequences both in the U.S. and Canada. See "Certain Income Tax Considerations" beginning on page S-34. This prospectus supplement and the accompanying prospectus may not describe these tax consequences fully. You should read the tax discussion in this prospectus supplement and the accompanying prospectus fully and consult with your own tax advisors.

Your ability to enforce civil liabilities under U.S. federal securities laws may be adversely affected by the fact that we are incorporated under the laws of Canada, many of our officers and directors and some of the experts named in this prospectus supplement and the accompanying prospectus are residents of Canada or elsewhere outside of the U.S., and a substantial portion of our assets and the assets of such persons are located outside the U.S.

NEITHER THE SEC NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ACCURACY OF THIS PROSPECTUS SUPPLEMENT AND THE ACCOMPANYING PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

Our registered address is located at 1405 du Parc-Technologique Blvd., Quebec City, Quebec, Canada, G1P 4P5, and our telephone number is (418) 652-8525.

Roth Capital Partners

The date of this prospectus supplement is October 12, 2012

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ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering of Units, which are comprised of Common Shares and Warrants, and supplements information contained in the accompanying prospectus and the documents incorporated by reference into the accompanying prospectus. The second part is the accompanying prospectus, which gives more general information about us and the securities we may offer from time to time under our short form base shelf prospectus and our shelf registration statement.

We have not authorized any dealer, salesperson or other person to give any information or to make any representation other than those contained in or incorporated by reference into this prospectus supplement, the accompanying prospectus and any related free writing prospectus that we may authorize to be provided to you. You should not rely upon any information or representation not contained in or incorporated by reference into this prospectus supplement, the accompanying prospectus or any free writing prospectus that we may authorize to be provided to you. If information in this prospectus supplement is inconsistent with the accompanying prospectus or the information incorporated by reference, you should rely on this prospectus supplement. This prospectus supplement, the accompanying prospectus and any related free writing prospectus that we may authorize to be provided to you do not constitute an offer to sell or the solicitation of an offer to buy Units, in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus supplement, the accompanying prospectus and any related free writing prospectus that we may authorize to be provided to you is accurate on any date other than the date set forth on the front cover of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference regardless of the date of delivery of this prospectus supplement, the accompanying prospectus and any related free writing prospectus that we may authorize to be provided to you or any sale of Units. Our business, financial condition, results of operations and prospects may have changed since those dates.

We further note that the representations, warranties and covenants made by us in any agreement that is filed or furnished as an exhibit to any document that is incorporated by reference into this prospectus supplement and the accompanying prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for

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the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

The financial statements included in or incorporated by reference into this prospectus supplement and the accompanying prospectus have been prepared in accordance with IFRS as issued by the International Accounting Standards Board. Our consolidated financial statements are subject to Canadian generally accepted auditing standards and auditor independence standards, in addition to the standards of the Public Company Accounting Oversight Board (United States) and the SEC independence standards.

As used in this prospectus supplement, the terms we, us, our, Company and Aeterna Zentaris refer to Aeterna Zentaris Inc. and its subsidiaries on a consolidated basis.

CURRENCY AND EXCHANGE RATES

The following table sets out the high and low exchange rates for one U.S. dollar expressed in Canadian dollars, for the period indicated and, the average of such exchange rates, and the exchange rate at the end of such period, in each case, based upon the noon rates as quoted by the Bank of Canada:

	October 2012 ⁽¹⁾	Nine-month period ended September 30, 2012	Year ended December 31,		
			2011	2010	2009
High	0.9870	1.0418	1.0604	1.0778	1.3000
Low	0.9763	0.9710	0.9449	0.9946	1.0292
Rate at end of period	0.9782	0.9837	1.0170	0.9946	1.0466
Average rate per period	0.9809	1.0023	0.9891	1.0299	1.1420

(1) Up to and including October 11, 2012.

On October 11, 2012, the exchange rate for one U.S. dollar expressed in Canadian dollars based upon the noon rate of the Bank of Canada was C\$0.9782.

SPECIAL NOTE ON FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the documents incorporated herein by reference contain forward-looking statements concerning the business, operations, financial performance and condition of Aeterna Zentaris. When used in this prospectus supplement, the accompanying prospectus and the documents incorporated herein by reference, words such as may, will, should, could, expect, plans, seeks, anticipates, intends, believes, estimates, predicts, potential or continue or the negative of these terms and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain such words. These forward-looking statements are based on current expectations and are naturally subject to uncertainty and changes in circumstances that may cause actual results to differ materially from those expressed or implied by such forward-looking statements. Such statements, based as they are on the current expectations of management, inherently involve numerous risks and uncertainties, known and unknown, many of which are beyond our control. Such risks include but are not limited to:

investments in biopharmaceutical companies are generally considered to be speculative;

we may never achieve or maintain operating profitability;

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our clinical trials may not yield results which will enable us to obtain regulatory approval for our products and we may suffer setbacks in any of our clinical trials;

we may not be able to successfully complete our clinical trial programs, or such clinical trials could take longer to complete than we project;

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the impact of the stringent ongoing government regulation to which our product candidates are subject and future changes in such regulatory environment;

we may not be able to generate significant revenues if our products do not gain market acceptance;

we may require significant additional financing, and we may not have access to sufficient capital;

we may not be able to regain or maintain compliance with the continued listing standards of The NASDAQ Stock Market;

we may cease to continue operating as we do if we are unsuccessful in increasing our revenues and/or raising additional funding;

failure to achieve our projected development goals in the time-frames we announce and expect;

the impact of any failure on our part to obtain acceptable prices or adequate reimbursement for our products on our ability to generate revenues;

competition in our targeted markets;

we may not obtain adequate protection for our products through our intellectual property;

we may infringe the intellectual property rights of others;

we may incur liabilities from our involvement in any patent litigation;

we may not obtain trademark registrations in connection with our product candidates;

we may not be able to make adequate arrangements with third parties for the purpose of commercializing our product candidates;

the failure to perform satisfactorily by third parties upon which we rely to conduct, supervise and monitor our clinical trials;

the failure to perform satisfactorily by third parties upon which we rely to manufacture and supply products;

our ability to retain or attract key personnel;

our strategic partners' manufacturing capabilities may not be adequate to effectively commercialize our product candidates;

risks related to product liability claims;

risks related to our holding company structure;

risks related to the pledge by our German subsidiary of all rights related to Cetrotide®;

the impact of legislative actions, new accounting pronouncements and higher insurance costs on our future financial position or results of operations;

fluctuations in currency exchange rates; and

stock market volatility and the possibility that our Common Shares may be delisted from the stock exchanges on which they currently trade.

More detailed information about these and other factors is included under **Risk Factors** in this prospectus supplement and the accompanying prospectus as well as in other documents incorporated herein by reference. Many of these factors are beyond our control. Future events may vary substantially from what we currently foresee. You should not place undue reliance, if any, on such forward-looking statements. Aeterna Zentaris disavows and is under no obligation to update or alter such forward-looking statements whether as a result of new information, future events or otherwise, other than as required by applicable securities legislation.

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PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information contained elsewhere in or incorporated by reference into this prospectus supplement and the accompanying prospectus. The summary may not contain all of the information that you should consider before investing in our Common Shares and Warrants. You should read the entire prospectus supplement and the accompanying prospectus carefully, including Risk Factors contained in this prospectus supplement and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus, before making an investment decision. This prospectus supplement may add to, update or change information in the accompanying prospectus.

Our Business

We are an oncology and endocrinology drug development company currently investigating treatments for various unmet medical needs. Our pipeline encompasses compounds at all stages of development, from drug discovery through to marketed products. We also benefit from our relationships with strategic collaborators and licensee partners to contribute to the development of our pipeline of product candidates and to establish commercial activities in specific territories.

Our highest priorities in oncology are the advancement of a Phase 3 study with perifosine, an oral AKT/PI3K inhibitor, in multiple myeloma (MM), as well as the initiation of a Phase 3 study in endometrial cancer with AEZS-108, a doxorubicin luteinizing hormone releasing hormone targeted conjugate compound, while advancing perifosine and AEZS-108 in other cancer indications. In endocrinology, a Phase 3 trial under a Special Protocol Assessment obtained from the U.S. Food and Drug Administration (the FDA) with AEZS-130, an oral ghrelin agonist, as a diagnostic test for adult growth hormone deficiency (AGHD) has been completed, and we are planning to file a New Drug Application (NDA) for its registration in the U.S.

Recent Developments

On August 28, 2012, we announced that a first patient had been recruited for a Phase 2A trial with our ghrelin agonist, AEZS-130, in patients with cancer cachexia.

On September 25, 2012, we announced that the European Patent Office had granted us a patent for the use of our ghrelin agonist, AEZS-130, related to methods and kits for use in relation to the diagnosis of growth hormone deficiency in a human or animal subject. Initially filed on February 19, 2007, the patent (EP #1 984 744 B1) titled, *Methods and Kits to Diagnose Growth Hormone Deficiency* , was made effective as of September 19, 2012, following its publication in the European Patent Bulletin, and will expire on February 19, 2027. A similar patent had previously been granted in the U.S.

On September 26, 2012, we announced that we continue to expect to file an NDA early next year, for our oral ghrelin agonist, AEZS-130, as a diagnostic test for AGHD, after receiving notification from the FDA that Fast Track designation had not been granted.

On October 2, 2012, we effected a share consolidation (reverse stock split) on a six-for-one basis (the Share Consolidation). Our Common Shares commenced trading on a consolidated and adjusted basis on both NASDAQ and TSX on October 5, 2012.

Corporate Information

Aeterna Zentaris Inc. was incorporated on September 12, 1990 under the laws of Canada. Our registered 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. None of the documents or information found on our website shall be deemed to be included in or incorporated into this prospectus supplement or the accompanying prospectus, unless such document is specifically incorporated herein or therein by reference.

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We currently have three wholly-owned direct and indirect subsidiaries, Aeterna Zentaris GmbH (AEZS GmbH), based in Frankfurt, Germany, Zentaris IVF GmbH (IVF), a direct wholly-owned subsidiary of AEZS GmbH, based in Frankfurt, Germany, and Aeterna Zentaris, Inc., based in Basking Ridge, New Jersey in the U.S. AEZS GmbH is our principal operating subsidiary.

The Offering

Issuer:	Aeterna Zentaris Inc.
Offering:	6,600,000 Units. Each Unit is comprised of one Common Share and 0.45 of a Warrant to purchase one Common Share.
Price per Unit:	\$2.50
Common Shares outstanding before this offering:	18,729,288 Common Shares
Common Shares to be outstanding immediately after this offering:	25,329,288 Common Shares without giving effect to the exercise of Warrants, and 28,299,288 Common Shares assuming and after giving effect to the exercise of all Warrants offered under this prospectus supplement.
Warrants we are offering:	Each Unit will include 0.45 of a Warrant to purchase one Common Share. Warrants to purchase an aggregate of up to 2,970,000 Common Shares will be issued in this offering. The Warrants will be exercisable during the period commencing on the date of original issuance and ending five years from such date at an exercise price of \$3.45 per Common Share, subject to adjustment. This prospectus supplement also relates to the offering of the Common Shares issuable upon exercise of the Warrants. There is no established public trading market for the Warrants, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the Warrants on any national securities exchange or other nationally recognized trading system.
Use of proceeds:	We intend to use the net proceeds from the sale of the securities under this prospectus supplement to continue to fund our ongoing drug development activities, particularly for the continued development of perifosine in multiple myeloma and the advancement of our AEZS-108 and AEZS-130 programs, as well as for future negative cash flow, general corporate purposes and working capital. See Use of Proceeds on page S-27 of this prospectus supplement.
NASDAQ and TSX symbols:	NASDAQ: AEZS; TSX: AEZ
Risk factors:	An investment in our Common Shares and Warrants involves a high degree of risk. See Risk Factors beginning on page S-9 of this prospectus supplement as well as the other information included in or incorporated by reference into this prospectus supplement and the accompanying prospectus for a discussion of factors that you should consider carefully before making an investment decision.

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Additional information:

Except as otherwise indicated, all historical share, warrant and option data, including number of securities issued and outstanding and applicable exercise prices, in this prospectus supplement have been retroactively adjusted to reflect and give effect to the Share Consolidation.

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The number of our Common Shares to be outstanding immediately after this offering is based on shares outstanding as of June 30, 2012 and excludes as of such date:

1,458,796 Common Shares issuable upon exercise of warrants that we previously issued in various registered direct offerings in October 2009, April 2010 and June 2010, having a weighted-average exercise price of approximately \$8.64 per Common Share;

490,633 Common Shares that underlie outstanding stock options granted under our stock option plan as at June 30, 2012, having a weighted-average exercise price of approximately \$8.04 per Common Share, and an additional 948,138 Common Shares that underlie outstanding stock options granted under our stock option plan as at June 30, 2012, having a weighted-average exercise price of approximately C\$14.46 per Common Share; and

an aggregate of 677,680 Common Shares available for future grants under our stock option plan.

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RISK FACTORS

Before making an investment decision, you should carefully consider the risks described in this prospectus supplement, together with all of the other information incorporated by reference into this prospectus supplement and the accompanying prospectus, including those described in our most recent Annual Report on Form 20-F and subsequent consolidated financial statements and corresponding management's discussion and analysis filed with the Canadian securities regulatory authorities and our Reports on Form 6-K furnished to the SEC including our unaudited interim consolidated financial statements and corresponding management's discussion and analysis. The risks mentioned below are presented as of the date of this prospectus supplement.

Our business, financial condition or results of operations could be materially adversely affected by any of these risks. Additional risks not presently known to us or that we currently deem immaterial may also impair our business operations. The trading price of our Common Shares could decline due to any of these risks, and you may lose part or all of your investment. This prospectus supplement, the accompanying prospectus and the incorporated documents also contain forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks mentioned below. Forward-looking statements included in this prospectus supplement are based on information available to us on the date hereof, and all forward-looking statements in documents incorporated by reference are based on information available to us as of the date of each such document. We disclaim any intent to update any forward-looking statements.

Risks Related to Us and Our Business

Investments in biopharmaceutical companies are generally considered to be speculative.

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

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 recurrent operating losses and, as disclosed in our unaudited interim consolidated financial statements as at and for the three-month and six-month periods ended June 30, 2012 and 2011, we had an accumulated deficit of approximately US\$195.9 million as at June 30, 2012. Our operating losses have adversely impacted, and will continue to adversely impact, our working capital, total assets and shareholders' deficiency. We do not expect to reach operating profitability in the immediate future, and our expenses are likely to increase as we continue to expand our research and development (R&D) and clinical study programs and our sales and marketing activities and seek regulatory approval for our product candidates. Even if we succeed in developing new commercial products, we expect to incur additional operating losses for at least the next several years. If we do not ultimately generate sufficient revenue from commercialized products and achieve or maintain operating profitability, an investment in our Common Shares and Warrants 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 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. Clinical trials 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 pre-clinical testing and early clinical studies, or trials, may not be indicative of results that are obtained in later studies.

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None of our product candidates has to date received regulatory approval for its intended commercial sale. We cannot market a pharmaceutical product in any jurisdiction until it has completed rigorous pre-clinical testing and clinical trials and passed such jurisdiction's extensive regulatory approval process. In general, significant research and development and clinical studies are required to demonstrate the safety and efficacy of our product candidates before we can submit regulatory applications. Pre-clinical testing and clinical development are long, expensive and uncertain processes. Preparing, submitting and advancing applications for regulatory approval is complex, expensive and time-consuming and entails significant uncertainty. Data obtained from pre-clinical and clinical tests can be interpreted in different ways, which could delay, limit or prevent regulatory approval. It may take us many years to complete the testing of our product candidates and failure can occur at any stage of this process. 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 clinical research organization with experience in conducting regulatory trials, errors in the conduct, monitoring and/or auditing could invalidate the results from a regulatory perspective. Even if a product candidate is approved by the FDA, the Canadian Therapeutic Products Directorate or any other regulatory authority, we may not obtain approval for an indication whose market is large enough to recoup 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, pre-clinical 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 recoup the R&D and other expenses we incur to develop and test new products.

Interim results of pre-clinical 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 pre-clinical animal studies may require us to do 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 pre-clinical 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.

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

must meet the requirements of these authorities;

must meet requirements for informed consent; and

must meet 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.

In addition, we rely on third parties, including contract research organizations (CROs) and outside consultants, to assist us in managing and monitoring clinical trials. Our reliance on these third parties may result in delays in completing, or in failing to complete, these trials if one or more third parties fails to perform with the speed and level of competence we expect.

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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 Common Shares.

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 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 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 outside Canada. 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.

Additionally, we have never filed an NDA, or similar application for approval in the U.S. or in any 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, or in the NDA filing, some questions may not be answered by the time we file our NDA. Unless the FDA waives the requirement to answer any such unanswered questions, submission of an NDA may be delayed or rejected.

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 products. 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 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.

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If we, or 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.

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, which may not accept or utilize our products, our ability to generate significant revenues from our products would be limited and our financial conditions will be materially adversely affected. In addition, if we fail to further penetrate our core markets and existing geographic markets or 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 and therapies 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. We cannot assure you 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 Common Shares.

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

We may require additional capital to pursue planned clinical trials, regulatory approvals, as well as further R&D and marketing efforts for our product candidates and potential products. Except as expressly described in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein, we do not anticipate generating significant revenues from operations in the near future and we currently have no committed sources of capital.

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We may attempt to raise additional funds through public or private financings, collaborations with other pharmaceutical companies or financing from other sources. 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 for equity securities, the issuance of those securities could result in dilution to our shareholders. Moreover, the incurrence of debt financing 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 and could impose restrictions on our operations. This could render us more vulnerable to competitive pressures and economic downturns.

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We anticipate that our existing working capital, including the proceeds from the sale of Units under this prospectus supplement and the accompanying prospectus (but excluding proceeds we may receive upon exercise of the Warrants) and anticipated revenues, will be sufficient to fund our development programs, clinical trials and other operating expenses for the near future. However, our future capital requirements are substantial and may increase beyond our current expectations depending on many factors including:

the duration 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;

other unexpected developments encountered in implementing our business development and commercialization strategies;

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.

Although our unaudited interim consolidated financial statements as at and for the three-month and six-month periods ended June 30, 2012 and 2011 have been 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 provided by potential investors as well as non-traditional sources of financing. Although we stated in our unaudited interim consolidated financial statements as at and for the three-month and six-month periods ended June 30, 2012 and 2011 that management believed that the Company had, as at June 30, 2012, sufficient 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 our future financial statements.

We have had sustained losses, accumulated deficits and negative cash flows from operations since our inception. We expect that this will continue throughout 2012.

Additional funding may be in the form of debt or equity or a hybrid instrument depending on the needs of the investor. In light of present and future global economic and credit market conditions, we may not be able to raise additional cash resources through these traditional sources of financing. Although we are also pursuing non-traditional sources of financing with third parties, the global 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 alliances with strategic partners, 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. If we do not raise additional capital, we do not expect our operations to generate sufficient cash flow to fund our obligations as they come due.

There can be no assurances 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 could be material uncertainties related to certain adverse conditions and events that could cast significant doubt on our ability to remain a going concern.

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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 have focused on three research programs and product candidates, perifosine, AEZS-108 and AEZS-130, for specific indications. As a result, we may forego or delay

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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 perifosine, AEZS-108 and AEZS-130, 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 Common Shares would likely decline.

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

The ability for us and/or our partners 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 or our partners to sell our products on a competitive basis. It may not be possible to negotiate favorable reimbursement rates for 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 control 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 biomedical 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 biopharmaceutical and pharmaceutical companies and academic research institutions 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.