Aeterna Zentaris Inc.
Form F-3/A
March 12, 2010

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As filed with the Securities and Exchange Commission on March 12, 2010
Registration No. 333-165037

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

PRE-EFFECTIVE AMENDMENT NO. 1 TO
FORM F-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

ÆTERNA ZENTARIS INC.
(Exact name of Registrant as specified in its charter)
Not Applicable
(Translation of Registrant s name into English)

Canada	**Not Applicable**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

1405 du Parc-Technologique Boulevard
Quebec City, Quebec
Canada, G1P 4P5
(418) 652-8525
(Address and telephone number of Registrant s principal executive offices)

Æterna Zentaris, Inc.
20 Independence Boulevard
Warren, New Jersey 07059-2731
(418) 652-8525
(Name, address, and telephone number of agent for service)

Copies to:

Elliot Shapiro	**Patrick O Brien**
Ogilvy Renault LLP	**Ropes & Gray LLP**
1 Place Ville Marie, Suite 2500	**One International Place**
Montreal, Quebec	**Boston, MA 02110-2624**
Canada, H3B 1R1	**(617) 951-7000**
(514) 847-4747	

Approximate date of commencement of proposed sale to the public: From time to time after this Registration Statement becomes effective.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. o

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. þ

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a registration statement pursuant to General Instruction I.C. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, please check the following box. o

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.C. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, please check the following box. o

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered(1)(2)	Proposed Maximum Aggregate Offering Price(2)(3)	Amount of Registration Fee(4)
Common Shares(5)			
Warrants(6)			
Total	US$60,000,000	US$60,000,000	US$4,278(7)

(1) There are being registered under this Registration Statement such indeterminate number of Common Shares and Warrants as shall have an aggregate initial offering price not to exceed US$60,000,000. Any securities registered by this Registration Statement may be sold separately or as units with other securities registered under this Registration Statement. The proposed maximum initial

offering price per security will be determined, from time to time, by the registrant in connection with the sale of the securities under this Registration Statement.

(2) In United States dollars or the equivalent thereof as converted from Canadian dollars.

(3) Estimated solely for purposes of calculating the registration fee pursuant to Rule 457(o).

(4) Previously paid.

(5) Includes associated rights to purchase Common Shares, which purchase rights are not currently separable from the Common Shares and are not currently exercisable. The value, if any, attributable to the purchase rights to be offered is included in the proposed offering price of the Common Shares.

(6) Also includes an indeterminate number of Common Shares (with associated rights to purchase Common Shares, if any) (i) as may be issuable or deliverable upon exercise of Warrants, and (ii) as may be required for delivery upon exercise of any Warrants as a result of anti-dilution provisions.

(7) Calculated in accordance with Rule 457(o).

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act or until this registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to Section 8(a) of the Securities Act, may determine.

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No securities regulatory authority has expressed an opinion about these securities and it is an offence to claim otherwise.
This short form base shelf prospectus constitutes a public offering of securities only in those jurisdictions where such securities may be lawfully offered for sale and therein only by persons permitted to sell such securities and it is an offence to claim otherwise.
Information has been incorporated by reference in this short form base shelf prospectus from documents filed with securities commissions or similar securities regulatory authorities in Canada. Copies of the documents incorporated herein by reference may be obtained on request without charge from the Corporate Secretary of Æterna 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.sedar.com.

New Issue Dated March 12, 2010

SHORT FORM BASE SHELF PROSPECTUS
U.S.$60,000,000
Common Shares
Warrants to Purchase Common Shares

We may from time to time during the 25-month period that this short form base shelf prospectus (the Prospectus), including any amendments, remains valid, offer, sell, and issue under this Prospectus up to U.S.$60,000,000 aggregate initial offering price of our common shares (the Common Shares) and/or warrants to purchase Common Shares (the Warrants , and, together with the Common Shares, the Securities). We may offer Securities from time to time in one or more transactions in such amounts and, in the case of the Warrants, with such terms, as we may determine in light of prevailing market conditions at the time of sale. We may sell and issue the Warrants under this Prospectus in one or more series.

The specific variable terms of any offering of Securities will be set out in the applicable supplement to this Prospectus (each, a Prospectus Supplement), including, where applicable: (i) in the case of the Common Shares, the number of Common Shares offered, the offering price, the currency in which the Common Shares will be issued and any other specific terms; and (ii) in the case of the Warrants, the designation of the particular series offered, the number of Warrants offered, the offering price, the currency in which the Warrants will be issued, the number of Common Shares that may be acquired upon exercise of the Warrants, the exercise price, dates and periods of exercise, adjustment procedures and any other specific terms applicable thereto.

A Prospectus Supplement may include specific terms pertaining to the Securities that are not within the alternatives and parameters described in this Prospectus. All shelf information permitted under applicable laws to be omitted from this Prospectus will be contained in one or more Prospectus Supplements that will be delivered to purchasers together with this Prospectus. Each Prospectus Supplement will be incorporated by reference into this Prospectus for the purposes of securities legislation as of the date of the Prospectus Supplement and only for the purposes of the distribution of the Securities to which the Prospectus Supplement pertains.

We are a foreign private issuer under United States (U.S.) securities laws. We have prepared our financial statements in accordance with Canadian generally accepted accounting principles (GAAP), and they are subject to Canadian auditing and auditor independence standards. Thus, they may not be comparable to the financial statements of U.S. companies. Information regarding the impact upon our financial statements of significant differences between Canadian and U.S. GAAP is contained in the Note 27 entitled Summary of differences between generally accepted accounting principles in Canada and in the United States to our audited consolidated balance sheets as at December 31, 2008 and 2007 and our audited consolidated statements of earnings (loss), changes in shareholders equity, comprehensive income (loss) and cash flows for each of the years in the three-year period ended December 31, 2008 included in our annual report on Form 20-F (filed in Canada with the Canadian securities regulatory authorities in lieu of an annual information form), which was filed with the United States Securities and Exchange Commission (SEC) on March 30, 2009 (available electronically at www.sec.gov) and which is incorporated by reference into this Prospectus. See Reconciliation

to U.S. GAAP .

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Owning the Securities may subject you to tax consequences both in Canada and the United States. This Prospectus and any applicable Prospectus Supplement may not describe these tax consequences fully. You should read the tax discussion in this Prospectus and any applicable Prospectus Supplement.

Your ability to enforce civil liabilities under U.S. federal securities laws may be affected adversely by the fact that we are incorporated under the laws of Canada, many of our officers and directors and all of the experts named in this Prospectus are residents of Canada or elsewhere outside of the United States, and a substantial portion of our assets and the assets of such persons are located outside the United States. See Enforceability of Civil Liabilities .

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ADEQUACY OR ACCURACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENCE.

Investing in the Securities involves risk. See Risk Factors beginning on page 8.

Our outstanding Common Shares are currently listed for trading on the Toronto Stock Exchange (TSX) under the trading symbol AEZ and on the NASDAQ Global Market (NASDAQ) under the trading symbol AEZS . **There is currently no market through which the Warrants may be sold and purchasers may not be able to resell Warrants purchased under this Prospectus. This may affect the pricing of any Warrants in the secondary market, the transparency and availability of trading prices, the liquidity of the Warrants, and the extent of issuer regulation. See the Risk Factors section of the applicable Prospectus Supplement.**

As of March 11, 2010, the aggregate market value of our outstanding Common Shares held by non-affiliates was approximately U.S.$37.6 million based on 63.1 million Common Shares outstanding, of which approximately 45.7 million Common Shares are held by non-affiliates, and a per share price of U.S.$0.82, based on the closing sale price of our Common Shares on the NASDAQ on March 11, 2010. As of the date hereof, we have not offered any securities pursuant to General Instruction I.B.5 of Form F-3 during the prior twelve calendar month period that ends on and includes the date hereof.

We may sell Securities to or through underwriters or dealers or directly to investors or through agents. The Prospectus Supplement relating to a particular offering of Securities will identify each person who may be deemed to be an underwriter with respect to such offering and will set forth the terms of the offering of such Securities, including, to the extent applicable, the offering price, the proceeds that we will receive, the underwriting discounts or commissions and any other discounts or concessions to be allowed or reallowed to dealers. The managing underwriter or underwriters with respect to Securities sold to or through underwriters will be named in the related Prospectus Supplement. See Plan of Distribution .

You should rely only on the information contained in this Prospectus. We have not authorized anyone to provide you with information different from that contained in this Prospectus. The information contained in this Prospectus is accurate only as of the date of this Prospectus, regardless of the time of delivery of this Prospectus or of any sale of our Securities.

Our registered office is located at 1405 du Parc-Technologique Blvd., Quebec City, Quebec, Canada G1P 4P5.

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DOCUMENTS INCORPORATED BY REFERENCE

The following documents have been filed with the various securities commissions or similar securities regulatory authorities in Canada and are specifically incorporated by reference into, and form an integral part of, this Prospectus:

(a) our annual report on Form 20-F for the financial year ended December 31, 2008 (filed in Canada with the Canadian securities regulatory authorities in lieu of an annual information form), which was filed with the SEC on March 30, 2009 and which includes our audited consolidated balance sheets as at December 31, 2008 and 2007 and our audited consolidated statements of earnings (loss), changes in shareholders equity, comprehensive income (loss) and cash flows for each of the years in the three-year period ended December 31, 2008 and the financial statement schedules, together with the auditors report thereon dated March 10, 2009, and our Management s Discussion and Analysis thereon included as Item 5. Operating and Financial Review and Prospects in our annual report;

(b) our unaudited interim consolidated financial statements as of and for the three- and nine-month periods ended September 30, 2009 and 2008 and Management s Discussion and Analysis thereon, which was included as Exhibit 99.1 to our report on Form 6-K furnished to the SEC on November 12, 2009;

(c) our management information circular dated March 10, 2009 in connection with our annual meeting of shareholders held on May 6, 2009, which was included as Exhibit 99.1 to our report on Form 6-K furnished to the SEC on April 7, 2009;

(d) our material change report dated March 16, 2009 with respect to the entering into a development, commercialization and licensing agreement with sanofi-aventis for the development, registration and marketing of cetrorelix in benign prostatic hyperplasia (BPH) for the U.S market, which was included as Exhibit 99.1 to our report on Form 6-K furnished to the SEC on March 17, 2009;

(e) our material change report dated June 5, 2009 with respect to the presentation by our partner Keryx Biopharmaceuticals of positive Phase 2 data in the clinical activity of perifosine as a treatment for advanced metastatic colon cancer and advanced renal cell carcinoma, which was included in our report on Form 6-K

furnished to the SEC on June 8, 2009;

(f) our material change report dated June 23, 2009 with respect to our announcement that data analysis and reporting of the results of the open-label safety study (study 041) of our Phase 3 program in benign prostatic hyperplasia (BPH) with cetrorelix would be brought forward from the scheduled fourth quarter into the third quarter of 2009, and would follow the disclosure of results from the first double-blind placebo controlled efficacy study (study 033), which was included in our report on Form 6-K furnished to the SEC on June 23, 2009;

(g) our material change report dated August 21, 2009 with respect to the reporting of the Phase 3 results for our North American efficacy trial Z-033 and our safety trial Z-041 in benign prostatic hyperplasia (BPH) with cetrorelix, which was included as Exhibit 99.2 in our report on Form 6-K furnished to the SEC on August 21, 2009;

(h) our material change report dated December 9, 2009 with respect to the reporting of the Phase 3 results for our European efficacy trial Z-036 in benign prostatic hyperplasia (BPH) with cetrorelix, which was included as Exhibit 99.1 in our report on Form 6-K furnished to the SEC on December 10, 2009; and

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(i) to the extent permitted by applicable securities law, any other documents which we elect to incorporate by reference into this Prospectus.

Any documents of the type referred to in the preceding paragraph, or similar material, including any annual information form, annual report on Form 20-F, annual and interim financial statements and related management s discussion and analysis, material change report (excluding any confidential material change report, if any), business acquisition report and information circular of Æterna Zentaris filed with the various securities commissions or similar securities regulatory authorities in Canada or filed with or furnished to the SEC after the date of this Prospectus and prior to the completion or withdrawal of any offering hereunder shall be deemed to be incorporated by reference into this Prospectus.

Information has been incorporated by reference into this Prospectus from documents filed with securities commissions or similar securities regulatory authorities in Canada. We will furnish without charge to each person to whom a copy of this prospectus is delivered, upon written or oral request, a copy of the information that has been incorporated into this prospectus by reference but not delivered with the prospectus (except exhibits, unless they are specifically incorporated into this prospectus by reference). Copies of the documents incorporated herein by reference may be obtained on request without charge from the Corporate Secretary of Æterna Zentaris at 1405 du Parc-Technologique Blvd., Quebec City, Quebec, Canada G1P 4P5, Tel. (418) 652-8525, or through the Internet on the Canadian System for Electronic Document Analysis and Retrieval (SEDAR) which can be accessed at www.sedar.com.

In addition to our continuous disclosure obligations under the securities laws of the provinces of Canada, we are subject to the information requirements of the U.S. *Securities Exchange Act of 1934*, as amended (the Exchange Act), and in accordance therewith we file with or furnish to the SEC reports and other information. You may read and copy any document that we have filed with the SEC at the SEC s public reference room at Room 1580, 100 F Street N.E., Washington, D.C., 20549. You may also obtain copies of the same documents from the public reference room of the SEC by paying a fee. You should call the SEC at 1-800-SEC-0330 or access its website at www.sec.gov for further information about the public reference rooms. The SEC s EDGAR Internet site also contains reports and other information about us and any public documents that we file electronically with the SEC. The EDGAR site can be accessed at www.sec.gov.

Any statement contained in this Prospectus or in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded, for the purposes of this Prospectus, to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. The modifying or superseding statement need not state that it has modified or superseded a prior statement or include any other information set forth in the document that it modifies or supersedes. The making of a modifying or superseding statement shall not be deemed an admission for any purposes that the modified or superseded statement, when made, constituted a misrepresentation, an untrue statement of a material fact or an omission to state a material fact that is required to be stated or that is necessary to make a statement not misleading in light of the circumstances in which it was made. Any statement so modified or superseded shall not constitute a part of this Prospectus, except as so modified or superseded.

Upon a new annual information form or annual report on Form 20-F and the related audited annual consolidated financial statements together with the auditors report thereon and management s discussion and analysis related thereto being filed by us with the applicable securities regulatory authorities during the currency of this Prospectus, the previous annual information form or annual report on Form 20-F, the previous audited annual consolidated financial statements and all interim financial statements, annual and quarterly management s discussion and analyses, material change reports and business acquisition reports filed by us prior to the commencement of our financial year in which the new annual information form or annual report on Form 20-F was filed, no longer shall be deemed to be incorporated by reference into this Prospectus for the purpose of future offers and sales of Securities hereunder.

One or more Prospectus Supplements containing the specific variable terms of an offering of Securities and other information in relation to such Securities will be delivered to purchasers of such Securities together with this Prospectus and shall be deemed to be incorporated by reference into this Prospectus as of the date of such Prospectus Supplement solely for the purposes of the offering of the Securities covered by any such Prospectus Supplement.

A Prospectus Supplement containing any additional or updated information that we elect to include therein will be delivered with this Prospectus to purchasers of Securities who purchase such Securities after the filing of this Prospectus and shall be deemed to be incorporated into this Prospectus as of the date of such Prospectus Supplement.

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In this Prospectus and in any Prospectus Supplement, unless otherwise indicated, references to we , us , our , Ætern Zentaris or the Company are to Æterna Zentaris Inc., a Canadian corporation, and its consolidated subsidiaries, unless it is clear that such terms refer only to Æterna Zentaris Inc. excluding its subsidiaries. Unless otherwise indicated, all financial information included in and incorporated by reference into this Prospectus and any Prospectus Supplement is determined using Canadian GAAP.

CURRENCY AND EXCHANGE RATES

All references to Cdn$ are to Canadian dollars and all references to U.S.$ are to U.S. dollars. 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:

	Month ended February 28, 2010	Month ended January 31, 2010	Year ended December 31,		
			2009	2008	2007
High	1.0734	1.0657	1.3000	1.2969	1.1853
Low	1.0420	1.0251	1.0292	0.9719	0.9170
Rate at end of period	1.0526	1.0650	1.0466	1.2246	0.9881
Average rate per period	1.0561	1.0440	1.1420	1.0660	1.0748

On March 11, 2010, the exchange rate for one U.S. dollar expressed in Canadian dollars based upon the noon rate of the Bank of Canada was Cdn$1.0265.

FORWARD-LOOKING STATEMENTS

This Prospectus and the documents incorporated herein by reference contain forward-looking statements concerning the business, operations, financial performance and condition of Æterna Zentaris. When used in this Prospectus, words such as *may, will, should, could, expects, 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;
- 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 trials programs, or such clinical trials could take longer to complete than we project;
- 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;

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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;

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;

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

the fact that our largest shareholders have influence over our business and corporate matters.

More detailed information about these and other factors is included in this Prospectus under the section entitled Risk Factors as well as in other documents incorporated by reference into this Prospectus. 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. Æterna 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.

ENFORCEABILITY OF CIVIL LIABILITIES

We are a corporation incorporated under and governed by the *Canada Business Corporations Act*. Many of our officers and directors, and all of the experts named in this Prospectus, are residents of Canada or elsewhere outside of the United States, and a

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substantial portion of our assets and the assets of such persons are located outside the United States. As a result, it may be difficult for investors in the United States to effect service of process within the United States upon such directors, officers and representatives of experts who are not residents of the United States or to enforce against them judgments of a U.S. court predicated solely upon civil liability under U.S. federal securities laws or the securities laws of any state within the United States. We have been advised by our legal counsel, Ogilvy Renault LLP, that a judgment of a U.S. court predicated solely upon civil liability under U.S. federal securities laws would probably be enforceable in Canada if the U.S. court in which the judgment was obtained has a basis for jurisdiction in the matter that would be recognized by a Canadian court for the same purposes. We have also been advised by Ogilvy Renault LLP, however, that there is substantial doubt as to whether an action could be brought in Canada in the first instance on the basis of liability predicated solely upon U.S. federal securities laws.

OUR BUSINESS

We are a late-stage drug development company specialized in oncology and endocrine therapy.

Æterna 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, unless such document is specifically incorporated herein by reference and enumerated as such under Documents Incorporated by Reference .

We currently have three wholly-owned direct and indirect subsidiaries, Æterna Zentaris GmbH (AEZS Germany) based in Frankfurt, Germany, Zentaris IVF GmbH, a direct wholly-owned subsidiary of AEZS Germany, based in Frankfurt, Germany and Æterna Zentaris, Inc., based in Warren, New Jersey in the United States. AEZS Germany is our principal operating subsidiary.

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

Our pipeline encompasses compounds at all stages of development, from drug discovery through marketed products. The highest priorities in oncology are our Phase 3 program with perifosine in multiple myeloma and our Phase 2 program in multiple cancers, including metastatic colon cancer, as well as our Phase 2 program with AEZS-108 in advanced endometrial and advanced ovarian cancer combined with potential developments in other cancer indications. In endocrinology, our lead program is the reactivation of a Phase 3 trial with AEZS-130 as a growth hormone (GH) stimulation test for the diagnosis of GH deficiency in adults (AGHD).

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The following table summarizes the development status of our principal products and product candidates.

Drug Discovery	**Preclinical Trials**	**Phase 1**	**Phase 2**	**Phase 3**	**Marketed**
120,000 compound library	AEZS-120 Prostate cancer vaccine (Oncology) AEZS-129 Erk & PI3K inhibitor (Oncology) AEZS-127 ErPC (Oncology) AEZS-123 Ghrelin receptor antagonist (Endocrinology) AEZS-115 Non-peptide LHRH antagonists (Endometriosis & urology)	AEZS-112 (Oncology) AEZS-130 Therapeutic in tumor cachexia (Endocrinology)	Perifosine § Metastatic colon cancer § Kidney cancer and others AEZS-108 § Ovarian cancer § Endometrial cancer	Perifosine Multiple myeloma Solorel (AEZS-130) Diagnostic in adult growth hormone deficiency (Endocrinology)	Cetrotide® (*In vitro* fertilization) (Endocrinology)
Partners			Perifosine: **Keryx** North America & Mexico **Handok** Korea	Perifosine: **Keryx** North America & Mexico **Handok** Korea	Cetrotide®: **Merck Serono** World ex-Japan **Nippon Kayaku / Shionogi** Japan

Our Business Strategy

Our primary business strategy is to advance, with the collaboration of our strategic partners, our product development pipeline with a focus on our flagship product candidates in oncology and endocrinology. In addition, we also continue to advance certain other clinical and pre-clinical programs as described below. Our vision is to become a fully-integrated specialty biopharmaceutical company.

Oncology

Our highest oncology priorities are our perifosine Phase 3 program in multiple myeloma and Phase 2 program in multiple cancers including metastatic colon cancer, as well as our Phase 2 program with AEZS-108 in advanced endometrial and advanced ovarian cancer combined with potential development in other cancer indications.

Perifosine

Perifosine is an orally active PI3K/Akt pathway inhibitor in a Phase 3 registration trial in multiple myeloma conducted by our North American partner Keryx for the territories of North America and Mexico under a Special Protocol Assessment reached with the Food and Drug Administration (FDA), which has also granted perifosine Orphan Drug and Fast Track designations. Perifosine is also in current multiple Phase 2 clinical studies, including metastatic colon cancer, renal cell carcinoma and various other cancers.

Furthermore, our partner Keryx announced on February 3, 2010 that it has reached another special protocol assessment in refractory metastatic colon cancer with the FDA and is planning the initiation of a registration Phase 3 trial in this indication.

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AEZS-108

AEZS-108 represents a new targeting concept in oncology leading to personalized medicine using a cytotoxic peptide conjugate which is a hybrid molecule composed of a synthetic peptide carrier and doxorubicin. The design of AEZS-108 allows for the specific binding and selective uptake of the cytotoxic conjugate by LHRH-receptor-positive tumors. Phase 2 trials in advanced endometrial cancer and advanced ovarian cancer have met their predefined primary efficacy endpoints.

Endocrinology

In endocrinology, aside from Cetrotide®, we intend to further advance the development of our lead program by the reactivation and further advancement of a Phase 3 trial with Solorel (AEZS-130) as a GH stimulation test for the diagnosis of AGHD.

AEZS-130 (macimorelin)

AEZS-130 (macimorelin), a growth hormone secretagogue (GHS), is a novel synthetic small molecule acting as a ghrelin mimetic that is orally active and stimulates the secretion of GH. A pivotal Phase 3 trial was initiated in the United States to investigate its safety and efficacy as a GH stimulation test for the diagnosis of AGHD for which Orphan Drug status has been granted by the FDA. In addition to the diagnostic indication, we believe that AEZS-130, based on the results of Phase 1 studies, has potential applications for the treatment of cachexia, a condition frequently associated with severe chronic diseases such as cancer, chronic obstructive pulmonary disease and AIDS.

Clinical and Preclinical Programs

Additionally, we are advancing in Phase 1, AEZS-112, an oral anticancer agent which involves three mechanisms of action, tubulin and topoisomeras II and angiogenesic inhibition, as well as several preclinical programs with targeted potential development candidates. Among the targets for which we expect to propose clinical development candidates in the coming years are: AEZS-120 (prostate cancer vaccine), AEZS-127 (erucylphosphocholine derivatives), AEZS-129 (Erk and PI3K inhibitor), AEZS-115 (non-peptide LHRH antagonists) and AEZS-123 (ghrelin receptor antagonist).

We also continue to perform targeted drug discovery activities from which we are able to derive pre-clinical candidates. This drug discovery includes high throughput screening systems and a library of more than 120,000 compounds.

We are currently in a stage in which some of our products and product candidates are being further developed or marketed jointly with strategic partners. We expect we will continue to seek strategic partnerships in the future as we move to realize our vision of becoming a fully-integrated specialty biopharmaceutical company.

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RISK FACTORS

The purchase of Securities offered under this Prospectus involves risks which prospective purchasers should take into consideration when making a decision to purchase such Securities. Investors should carefully consider the risks described below, together with all of the other information included in this Prospectus and the documents incorporated by reference into this Prospectus, before making an investment decision. Certain of these risk factors have been disclosed in our annual report on Form 20-F for the financial year ended December 31, 2008 (filed in Canada with the Canadian securities regulatory authorities in lieu of an annual information form) under the heading Risks Factors and in our management s discussion and analysis for the period ended September 30, 2009 under the heading Risks Factors and Uncertainties , which documents are incorporated by reference into this Prospectus. This discussion of risk factors will be updated from time to time in our subsequent filings with the Canadian securities regulatory authorities, including in subsequent annual and quarterly management s discussion and analysis and annual information forms. If any of the following risks actually occurs or materializes, our business, financial condition or results of operations could be adversely affected, even materially adversely affected. In such an event, the trading price of our Securities could decline and you may lose part or all of your investment. Any reference in this section to our products includes a reference to our product candidates and future products we may develop.

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 of and for the three- and nine-month periods ended September 30, 2009 and 2008, we had an accumulated deficit of U.S.$139.6 million as of September 30, 2009. Our operating losses have adversely impacted, and will continue to adversely impact, our working capital, total assets and shareholders equity. 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 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 Securities.

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 preclinical testing and early clinical studies, or trials, may not be indicative of results that are obtained in later studies.

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 preclinical 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 United States, in Canada and

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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, 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 recoup 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 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.

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 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. Trials such as this 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 a new drug application (NDA), or similar application for approval in the United States 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.

Even if we obtain regulatory approvals for our product candidates, we will be subject to stringent ongoing government regulation.

Even if regulatory authorities approve any of our product candidates, the manufacture, marketing and sale of such products will be subject to strict and ongoing regulation. 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 (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 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.

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;

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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 Securities.

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 and the documents incorporated by reference herein, 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 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.

We anticipate that our existing working capital, including the proceeds from any sale of Securities hereunder 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 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.

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In addition, the ongoing recessionary global market and economic conditions as well as certain continuing difficulties 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 of and for the three- and nine-month periods ended September 30, 2009 and 2008 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 of and for the three- and nine-month periods ended September 30, 2009 and 2008 that management believed that the Company had, as at September 30, 2009, 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 2010.

Additional funding may be in the form of debt or equity or a hybrid instrument depending on the needs of the investor. Given 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 are also pursuing non-traditional sources of financing, the global credit market crisis has also adversely affected the ability of potential parties to pursue such transactions. We do not believe that the ability to access capital markets or these adverse conditions are likely to improve significantly in the near future. Accordingly, as a result of the foregoing, we continue to review traditional sources of financing, such as private and public debt or 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 are material uncertainties related to certain adverse conditions and events that could cast significant doubt on our ability to remain a going concern.

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 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.

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 United States, 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.

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 Æterna Zentaris, are uncertain and involve complex questions of law and fact for which important legal issues remain unresolved. Applications for patents and trademarks in Canada, the United States and in other foreign territories have been filed and are being actively pursued by us. 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. Even if issued, patents to us or our licensors 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 United States 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 also may 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 opposition or nullity proceedings in certain countries outside the United States. 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 United States 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, neither we nor our licensors can be certain that we or they were the first to make the inventions claimed in our or their issued patents or pending patent applications, or that we or they were the first to file for protection of the inventions set forth in these patent applications. If a third party has also filed a patent application in the United States covering our product candidates or a similar invention, we may have to participate in an adversarial proceeding, known as an interference, declared by the United States Patent and Trademark Office to determine priority of invention in the United States. 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.

In addition to patents, we 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 technology under license agreements with third parties. Our failure to comply with the requirements of material 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.

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 methods are found to infringe. Moreover, there may be published pending applications that do not currently include a claim covering our products or methods but which nonetheless provide support for a later drafted claim that, if issued, our products or methods 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 issue 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 United States 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.

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

Our involvement in any patent litigation, interference, opposition or other administrative proceedings will likely cause us to incur substantial expenses, 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.

We have filed applications for trademark registrations in connection with our product candidates in various jurisdictions, including the United States. 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 United States 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 of 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 are likely 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 strategic partners;
- licensing fees revenues;
- tax credits and grants (R&D);
- the outcome of litigation, if any;
- changes in foreign currency fluctuations;
- the timing of achievement and the receipt of milestone payments from current or future collaborators; and
- failure to enter into new or the expiration or termination of current agreements with collaborators.

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.

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We may invest or spend the proceeds of any offering of Securities under this Prospectus in ways with which investors may not agree and in ways that may not earn a profit.

Our management team will have broad discretion concerning the use of the proceeds of any offering of Securities under this Prospectus as well as the timing of their expenditure. As a result, investors will be relying on the judgment of management for the application of the proceeds of any offering of Securities under this Prospectus. We intend to use the proceeds from any offering primarily for general corporate purposes, which may include, but are not limited to, our current clinical development programs. Investors may not agree with the ways we decide to use these proceeds, and our use of the proceeds may not yield any results or profits.

We will not be able to successfully commercialize our product candidates if we are unable to make adequate arrangements with third parties for such purposes.

We currently have a lean sales and marketing staff. In order to commercialize our product candidates successfully, we need to make arrangements with third parties to perform some or all of these services in certain territories.

We contract with third parties for the sales and marketing of our products. Our revenues will depend upon the efforts of these third parties, whose efforts may not be successful. If we fail to establish successful marketing and sales capabilities or to make arrangements with third parties for such purposes, our business, financial condition and results of operations will be materially adversely affected.

If we had to resort to developing a sales force internally, the cost of establishing and maintaining a sales force would be substantial and may exceed its cost effectiveness. In addition, in marketing our products, we would likely compete with many companies that currently have extensive and well-funded marketing and sales operations. Despite our marketing and sales efforts, we may be unable to compete successfully against these companies.

We are currently dependent on strategic partners and may enter into future collaborations for the research, development and commercialization of our product candidates. Our arrangements with these strategic partners 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, strategic partners to perform various functions related to our business, including, but not limited to, the research, development and commercialization of 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 issue our equity, voting or other securities to corporate partners, licensees and others. Any license or sublicense of our commercial rights may reduce our product revenue.

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

- not all of our strategic partners 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 strategic partnership agreements that do contain such contractual prohibitions or restrictions, prohibitions or restrictions do not always apply to our partners affiliates 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;

- our strategic partners may under-fund or fail to commit sufficient resources to marketing, distribution or other development of our products;

- we may not be able to renew such agreements;

- our strategic partners may not properly maintain or defend certain intellectual property rights that may be important to the commercialization of our products;

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our strategic partners 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 our strategic partners 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 our strategic partners to act in their own self-interest and not in our interest or those of our shareholders or other stakeholders.

In addition, our strategic partners 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 partner or abandon this product candidate which would likely cause a drop in the price of our Securities.

We have entered into important strategic partnership agreements relating to certain of our product candidates for various indications. Detailed information on our research and collaboration agreements is available in our various reports and disclosure documents filed with the Canadian securities regulatory authorities and filed with or furnished to the SEC, including the documents incorporated by reference into this Prospectus. See, for example, Notes 26 and 27 to our audited consolidated balance sheets as at December 31, 2008 and 2007 and our audited consolidated statements of earnings (loss), changes in shareholders equity, comprehensive income (loss) and cash flows for each of the years in the three-year period ended December 31, 2008 included in our annual report on Form 20-F (filed in Canada with the Canadian securities regulatory authorities in lieu of an annual information form), which is incorporated by reference into this Prospectus.

We have also entered into a variety of collaborative licensing agreements with various universities and institutes under which we are obligated to support some of the research expenses incurred by the university laboratories and pay royalties on future sales of the products. In turn, we have retained exclusive rights for the worldwide exploitation of results generated during the collaborations.

In particular, we have entered into an agreement with Tulane University (Tulane), which provides for the payment by us of single-digit royalties on future worldwide net sales of cetrorelix and including CetrotideÒ. Tulane is also entitled to receive a low double-digit participation payment on any lump-sum, periodic or other cash payments received by us from sub-licensees (see Note 27 to our audited consolidated balance sheets as at December 31, 2008 and 2007 and our audited consolidated statements of earnings (loss), changes in shareholders equity, comprehensive income (loss) and cash flows for each of the years in the three-year period ended December 31, 2008 included in our annual report on Form 20-F filed in Canada with the Canadian securities regulatory authorities in lieu of an annual information form, which is incorporated by reference into this Prospectus).

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 (GCP) guidelines and the investigational plan and protocols contained in an Investigational New Drug application, or 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.

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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 partners, 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 paid by us 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 rely on third parties to manufacture and supply marketed products. We also have certain supply obligations *vis-à-vis* our licensing partners who are responsible for the marketing of the 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, we cannot guarantee that we will not experience supply shortfalls and, in such event, we may not be able to perform our obligations under contracts with our partners.

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. Competition for skilled personnel is intense, and our ability to attract and retain qualified personnel may be affected by such competition.

Our strategic partners manufacturing capabilities may not be adequate to effectively commercialize our product candidates.

Our manufacturing experience to date with respect to our product candidates consists of producing drug substance for clinical studies. To be successful, these product candidates have to be manufactured in commercial quantities in compliance with regulatory requirements and at acceptable costs. Our strategic partners current manufacturing facilities have the capacity to produce projected product requirements for the foreseeable future, but we will need to increase capacity if sales continue to grow. Our strategic partners may not be able to expand capacity or to produce additional product requirements on favorable terms. Moreover, delays associated with securing additional manufacturing capacity may reduce our revenues and adversely affect our business and financial position. There can be no assurance that we will be able to meet increased demand over time.

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, in particular our biopharmaceutical 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 which requires us 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.

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Legislative actions, new accounting pronouncements and higher insurance costs are likely to 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.

We will report under International Financial Reporting Standards for our interim and annual consolidated financial statements for the financial year ending December 31, 2011.

The Accounting Standards Board of the Canadian Institute of Chartered Accountants has announced that Canadian publicly accountable enterprises are required to adopt International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board, effective January 1, 2011. We will be required to report under IFRS for our interim and annual consolidated financial statements for the financial year ending December 31, 2011.

Although IFRS uses a conceptual framework similar to Canadian GAAP, we will need to address differences in accounting policies. We are currently considering the impact that IFRS will have on our financial statements.

We may incur losses associated with foreign currency fluctuations.

Our operations are in many instances conducted in currencies other than the U.S. dollar (principally Euros), and fluctuations in the value of foreign currencies could cause us to incur currency exchange losses. We do not currently employ a hedging strategy against exchange rate risk. We cannot say with any assurance that we will not suffer losses as a result of unfavorable fluctuations in the exchange rates between the United States dollar, the euro, the Canadian dollar and other currencies.

We may not be able to successfully integrate acquired businesses.

Future acquisitions may not be successfully integrated. The failure to successfully integrate the personnel and operations of businesses which we may acquire in the future with ours could have a material adverse effect on our operations and results.

Risks Related to the Securities

Our share price is volatile, which may result from factors outside of our control. If we experience low trading volume or if our Common Shares are delisted from the TSX or NASDAQ, you may have difficulty selling your Securities.

Our Common Shares are currently listed and traded only on the TSX and NASDAQ. Our valuation and share price since the beginning of trading after our initial listings, first in Canada and then in the United States, 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.

During the year ended December 31, 2009, the closing price of our Common Shares ranged from Cdn$0.57 to Cdn$3.11 per share on the TSX, and from U.S.$0.46 to U.S.$2.83 on the NASDAQ. Our share price may be affected by developments directly affecting our business and by developments out of our control or unrelated to us. The biopharmaceutical sector in particular, and the stock market generally, 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;

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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 United States, 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 United States, Canada or abroad.

Our listing on both the TSX and NASDAQ 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.

In the past, following periods of large price declines in the public market price of a company s securities, securities class action litigation has often been initiated against that company. Litigation of this type could result in substantial costs and diversion of management s attention and resources, which would adversely affect our business. Any adverse determination in litigation could also subject us to significant liabilities.

We must meet continuing listing requirements to maintain the listing of our Common Shares on the TSX and NASDAQ. For continued listing, NASDAQ requires, among other things, that listed securities maintain a minimum closing bid price of not less than U.S.$1.00 per share. On January 22, 2010, we announced that we had received a letter from the NASDAQ Listing Qualifications Department indicating that the minimum closing bid price of the Common Shares had fallen below U.S.$1.00 for 30 consecutive trading days, and therefore, Æterna Zentaris was not in compliance with NASDAQ Listing Rule 5450(a)(1) (the Rule). In accordance with NASDAQ Listing Rule 5810(C)(3)(a), we have been provided a grace period of 180 calendar days, or until July 20, 2010, to regain compliance with this requirement. We can regain compliance with the Rule if the bid price of our Common Shares closes at U.S.$1.00 or higher for a minimum of ten consecutive business days during the grace period, although NASDAQ may, in its discretion, require us to maintain a minimum closing bid price of at least U.S.$1.00 per share for a period in excess of ten consecutive business days before determining that we have demonstrated the ability to maintain long-term compliance.

If we are unsuccessful in meeting the minimum bid requirement by July 20, 2010, NASDAQ will provide notice to us that our Common Shares will be subject to delisting from the NASDAQ Global Market. If the Company receives a delisting notification, we may appeal to the Listing Qualifications Panel or apply to transfer the listing of our Common Shares to the NASDAQ Capital Market if we satisfy at such time all of the initial listing standards on the NASDAQ Capital Market, other than compliance with the minimum closing bid price requirement. If the application to the NASDAQ Capital Market is approved, then we will have an additional 180-day grace period in order to regain compliance with the minimum bid price requirement while listed on the NASDAQ Capital Market. There can be no assurance that we will meet the requirements for continued listing on the NASDAQ Global Market or whether our application to the NASDAQ Capital Market will be approved or that any appeal would be granted by the Listing Qualifications Panel.

Our largest shareholders have influence over our business and corporate matters, including those requiring shareholder approval. This could delay or prevent a change in control. Sales of Common Shares by such shareholders could have an impact on the market price of our Securities.

Our two largest shareholders, which held 13.97% and 12.94% of our outstanding Common Shares as of the date of this Prospectus, have certain rights to nominate members of our Board of Directors as well as influence over our business and corporate matters, including those requiring shareholder approval. This could delay or prevent a change in control. Sales of Common Shares by such shareholders could have an impact on the price of our Securities.

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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 expansion of our business. As a result, the return on an investment in our Securities will, for the foreseeable future, depend upon any future appreciation in value. There is no guarantee that our Securities will appreciate in value or even maintain the price at which shareholders have purchased their Securities.

Risks Related to the Issuance of Securities under this Prospectus

An active market may not develop for the Warrants, which may hinder your ability to liquidate your investment.

Each issuance of Warrants will be a new issue of securities with no established trading market, and we do not currently intend to list them on any securities exchange**.** A dealer may intend to make a market in the Warrants after their issuance pursuant to this Prospectus; however, a dealer may not be obligated to do so and may discontinue such market-making at any time. As a result, we cannot assure you that an active trading market will develop for any series of the Warrants. In addition, subsequent to their initial issuance, the Warrants may trade at a discount to their initial offering price, depending upon the value of the underlying Common Shares and upon our prospects or the prospects for companies in our industry generally and other factors, including those described herein.

A large number of Common Shares may be issued and subsequently sold upon the exercise of the Warrants. The sale or availability for sale of these Warrants may depress the price of our Common Shares.

The number of Common Shares that will be initially issuable upon the exercise of Warrants will be determined by the particular terms of each issue of Warrants and will be described in the relevant Prospectus Supplement. To the extent that purchasers of Warrants sell Common Shares issued upon the exercise of the Warrants, the market price of our Common Shares may decrease due to the additional selling pressure in the market. The risk of dilution from issuances of Common Shares underlying the Warrants may cause shareholders to sell their Common Shares, which could further contribute to any decline in the Common Share price.

The sale of Common Shares issued upon exercise of the Warrants could encourage short sales by third parties which could further depress the price of the Common Shares.

Any downward pressure on the price of Common Shares caused by the sale of Common Shares issued upon the exercise of the Warrants could encourage short sales by third parties. In a short sale, a prospective seller borrows Common Shares from a shareholder or broker and sells the borrowed Common Shares. The prospective seller hopes that the Common Share price will decline, at which time the seller can purchase Common Shares at a lower price for delivery back to the lender. The seller profits when the Common Share price declines because it is purchasing Common Shares at a price lower than the sale price of the borrowed Common Shares. Such sales could place downward pressure on the price of our Common Shares by increasing the number of Common Shares being sold, which could further contribute to any decline in the market price of our Common Shares.

We cannot predict the actual number of Common Shares that we will issue upon the exercise of the Warrants. The number of Common Shares that we will issue under the Warrants may depend on the market price of our Common Shares.

The actual number of Common Shares that we will issue upon the exercise of the Warrants is uncertain and will be determined, or made determinable, by the particular terms of each issue of Warrants and will be described in the relevant Prospectus Supplement. The number of Common Shares issuable upon the exercise of the Warrants may fluctuate based on the market price of our Common Shares. Holders of Warrants may receive more Common Shares if our Common Share price declines.

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

Any issuance of equity securities or securities convertible into or exchangeable for equity securities after the offering of Securities under this Prospectus, including the issuance of Common Shares upon the exercise of stock options and upon exercise of the 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

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our obligations upon the exercise of options 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 of December 31, 2009, there were:

63,089,954 Common Shares issued and outstanding;

No issued and outstanding Preferred Shares (as defined below);

4,110,603 Common Shares issuable upon exercise of outstanding warrants; and

6,213,922 stock options outstanding.

In addition, the price of Securities could also be affected by possible sales of Securities 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 Securities. This hedging or arbitrage could, in turn, affect the trading price of our Securities.

CHANGES IN LOAN AND CAPITAL STRUCTURE

Since September 30, 2009, there has been no material change in our loan and capital structure on a consolidated basis except for the issuance of Common Shares and warrants to purchase Common Shares, as fully described in Note 13 to our unaudited interim consolidated financial statements as at and for the three and nine-month periods ended September 30, 2009 and 2008, which financial statements are incorporated by reference into this Prospectus. Upon completion of such issuance of Common Shares and warrants, the Company received proceeds of approximately U.S.$5.5 million, less cash transaction costs of approximately U.S.$0.4 million.

As of September 30, 2009, we had no outstanding long-term debt.

DESCRIPTION OF SHARE CAPITAL

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 of December 31, 2009, there were 63,089,954 Common Shares outstanding. No Preferred Shares of the Company have been issued to date.

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 the Company s Board of Directors on the Common Shares. Finally, the holders of the Common Shares are entitled to receive the remaining property of the Company upon any liquidation, dissolution or winding-up of the affairs of the Company, 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 the share capital of the Company ranking junior to the First Preferred Shares with respect to dividends and, in the event of the liquidation of the Company, the distribution of its property upon its dissolution or winding-up, or the distribution of all or part of its assets among the shareholders, to an amount equal to the value of the consideration paid in respect of such shares outstanding, as credited to the issued and paid-up share capital of the Company, 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 the share capital of the Company ranking junior to the Second Preferred Shares with respect to dividends and, in the event of the liquidation of the Company, the distribution of its property upon its dissolution or winding-up,

or the distribution of all or part of its assets among the

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shareholders, to an amount equal to the value of the consideration paid in respect of such shares outstanding, as credited to the issued and paid-up share capital of the Company, 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 *Canada Business Corporations Act* to act honestly and in good faith with a view to the best interests of the Company and to exercise the care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances.

Additional information on our share capital is provided in Item 10. Additional Information in our annual report on Form 20-F for the financial year ended December 31, 2008 (filed in Canada with the Canadian securities regulatory authorities in lieu of an annual information form) incorporated by reference into this Prospectus.

DESCRIPTION OF WARRANTS

Warrants may be offered separately or together with Common Shares. Each series of Warrants will be issued under a separate warrant agreement or indenture to be entered into between us and one or more purchasers of such Warrants or with banks or trust companies acting as warrant agent. The applicable Prospectus Supplement will include details of the warrant agreements covering the Warrants being offered. The warrant agent will act solely as our agent and will not assume a relationship of agency with any holders of Warrant certificates or beneficial owners of Warrants.

The particular terms of each issue or series of Warrants will be described in the related Prospectus Supplement. This description will include, where applicable:

the designation and aggregate number of Warrants offered;

the price at which the Warrants will be offered;

the currency or currency unit in which the Warrants are denominated;

the date on which the right to exercise the Warrants will commence and the date on which the right will expire;

the number of Common Shares that may be purchased upon exercise of each Warrant and the price at which and currency or currencies in which that amount of Common Shares may be purchased upon exercise of each Warrant;

if offered in conjunction with the Common Shares, the number of Warrants that will be offered with each Common Share;

the date or dates, if any, on or after which the Warrants and the related Common Shares will be transferable separately;

the minimum or maximum amount, if any, of Warrants that may be exercised at any one time;

whether the Warrants will be subject to redemption or call, and, if so, the terms of such redemption or call provisions; and

any other terms, conditions and rights (or limitations on such rights) of the Warrants.

We reserve the right to set forth in a Prospectus Supplement specific terms of the Warrants that are not within the options and parameters set forth in this Prospectus. In addition, to the extent that any particular terms of the Warrants described in a Prospectus Supplement differ from any of the terms described in this Prospectus, the description of such terms set forth in this Prospectus shall be deemed to have been superseded by the description of such differing terms set forth in such Prospectus Supplement with respect to such Warrants.

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PRICE RANGE AND TRADING VOLUME

Our Common Shares are listed and posted for trading 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 and the average daily trading volume of our Common Shares on NASDAQ and on the TSX:

	NASDAQ (U.S.$)			TSX (Cdn$)		
	High	**Low**	**Volume**	**High**	**Low**	**Volume**
2009	2.83	0.46	385,128	3.11	0.57	155,194
2008	1.80	0.40	29,774	1.85	0.44	46,277
2007	4.36	1.46	53,116	5.10	1.47	111,144
2006	7.46	4.05	42,679	8.60	4.68	124,079
2005	6.36	4.18	39,460	7.65	4.92	61,314
2008						
Fourth quarter	0.60	0.40	28,090	0.72	0.44	55,510
Third quarter	1.36	0.59	17,600	1.42	0.61	30,641
Second quarter	1.80	1.00	37,876	1.85	1.01	42,791
First quarter	1.73	0.77	35,813	1.78	0.75	56,384
2009						
Fourth quarter	1.25	0.80	317,523	1.40	0.83	111,373
Third quarter	2.83	0.89	1,056,206	3.11	0.97	375,987
Second quarter	2.35	0.89	113,553	2.63	1.06	99,844
First quarter	0.97	0.46	32,455	1.25	0.57	33,877
Last twelve months						
Mar-10[1]	0.84	0.82	111,463	0.86	0.83	58,122
Feb-10	0.87	0.81	102,265	0.91	0.86	38,021
Jan-10	0.93	0.80	489,389	0.99	0.83	109,245
Dec-09	1.12	0.80	341,716	1.17	0.83	140,062
Nov-09	1.10	0.98	191,089	1.17	1.05	97,410
Oct-09	1.25	0.99	408,270	1.40	1.07	96,648
Sept-09	1.38	0.89	1,240,716	1.46	0.98	259,348
Aug-09	2.83	0.89	1,567,974	3.11	0.97	704,210
Jul-09	2.62	1.67	391,576	2.80	1.95	188,891
Jun-09	2.35	1.73	257,401	2.63	1.97	185,032
May-09	1.69	1.11	42,220	1.86	1.31	56,320
Apr-09	1.32	0.89	30,792	1.59	1.06	51,967
Mar-09	0.97	0.65	54,736	1.25	0.83	54,586

[1] Up to and including March 11, 2010.

PRIOR SALES

On June 23, 2009, we completed a registered direct offering pursuant to which we issued 5,319,149 units, each unit being comprised of one Common Share and one warrant to purchase 0.35 of a Common Share, for a price of U.S.$1.88 per unit. Each such warrant has an exercise price of U.S.$2.06 per share. We also issued compensation warrants to purchase up to an aggregate of 287,234 Common Shares to Rodman & Renshaw LLC (and certain of its representatives), who acted as placement agent for this offering, which warrants have an exercise price of U.S.$2.35

per share.

In addition, on October 23, 2009, we completed a second registered direct offering pursuant to which we issued 4,583,335 units, each unit being comprised of one Common Share and one warrant to purchase 0.40 of a Common Share, for a purchase price of U.S.$1.20 per unit. Each such warrant has an exercise price of U.S.$1.25 per share. We also issued compensation warrants to purchase up to an aggregate of 128,333 Common Shares to Rodman & Renshaw LLC, who acted as placement agent for this offering, which warrants have an exercise price of U.S.$1.50 per share.

On December 9, 2009, we granted an aggregate of 1,448,422 stock options to acquire Common Shares at an exercise price of Cdn$0.95 to our directors, executive officers and employees pursuant to our stock option plan.

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USE OF PROCEEDS

Unless otherwise specified in a Prospectus Supplement, the net proceeds resulting from the issuance of Securities will be used for the general corporate purposes of Æterna Zentaris, which may include development costs of our product pipeline. All expenses relating to an offering of Securities and any compensation paid to underwriters, dealers or agents, as the case may be, will be paid out of our general funds or from the proceeds of any offering under this Prospectus or a Prospectus Supplement. The use of proceeds will be specified in the Prospectus Supplement relating to a particular offering of Securities, as required by applicable securities legislation.

EXPENSES OF ISSUANCE AND DISTRIBUTION

The following table sets forth the various expenses in connection with the sale and distribution of the securities being registered. We will bear all of the expenses shown below.

Securities and Exchange Commission registration fee	US$4,278
Printing and engraving expenses	*
Legal fees and expenses	*
Accounting fees and expenses	*
Transfer agent fees and expenses	*
Miscellaneous	*
Total	US$*

* The amount of securities and number of offerings are indeterminable, and the expenses cannot be estimated at this time.

PLAN OF DISTRIBUTION

We may offer and sell the Securities to or through underwriters or dealers purchasing as principals, and we may also sell the Securities to one or more purchasers directly or through agents. Securities may be sold from time to time in one or more transactions at a fixed price or prices, or at non-fixed prices.

If offered on a non-fixed price basis, the Securities may be offered at prevailing market prices at the time of sale or at prices to be negotiated with purchasers. The prices at which the Securities may be offered may vary as between purchasers and during the period of distribution. Consequently, any dealer s overall compensation will increase or decrease by the amount by which the aggregate price paid for the Securities by the purchasers exceeds or is less than the gross proceeds paid by the dealers, acting as principals, to us.

If, in connection with the offering of Securities at a fixed price or prices, the underwriters have made a *bona fide* effort to sell all of the Securities at the initial offering price fixed in the applicable Prospectus Supplement, the public offering price may be decreased and thereafter further changed, from time to time, to an amount not greater than the initial public offering price fixed in such Prospectus Supplement, in which case the compensation realized by the underwriters will be decreased by the amount that the aggregate price paid by purchasers for the Securities is less than the gross proceeds paid by the underwriters to us.

A Prospectus Supplement will identify each underwriter, dealer or agent engaged by us, as the case may be, in connection with the offering and sale of a particular issue of Securities, and will also set forth the terms of the offering, including the public offering price (or the manner of determination thereof if offered on a non-fixed price basis), the proceeds to us and any compensation payable to the underwriters, dealers or agents.

Under agreements which may be entered into by Æterna Zentaris, underwriters, dealers and agents who participate in the distribution of the Securities may be entitled to indemnification by us against certain liabilities, including liabilities arising out of any misrepresentation in this Prospectus and the documents incorporated by reference herein, other than liabilities arising out of any misrepresentation made by underwriters, dealers or agents who participate in the offering of the Securities.

Under no circumstances will the fee, commission or discount received or to be received by any underwriter, placement agent or other FINRA member or independent broker-dealer exceed 8% of the gross proceeds of any public offering of the Securities in the United States pursuant to this Prospectus.

Each issue of Warrants will be a new issue of securities with no established trading market. In connection with any offering of Securities, the underwriters, dealers or agents, as the case may be, may over-allot or effect transactions which stabilize or maintain the market price of the Securities of such series or issue at a level above that which might otherwise prevail in the open market. Such transactions, if commenced, may be discontinued at any time. Any underwriters, dealers or agents to or through whom Securities are sold by us for public offering and sale may make a market in the Securities, but such underwriters, dealers or agents will not be obligated to do so and may discontinue any market making at any time without notice. No assurance can be given that a trading market in the Securities of any series or issue will develop or as to the liquidity of any such trading market for the Securities.

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CERTAIN INCOME TAX CONSIDERATIONS

The applicable Prospectus Supplement will describe certain Canadian federal income tax consequences to an investor of acquiring any Securities offered thereunder, including, for investors who are non-residents of Canada, whether the payments of dividends (or any other amounts) on the Securities, if any, will be subject to Canadian non-resident withholding tax.

The applicable Prospectus Supplement may also describe certain U.S. federal income tax consequences of the acquisition, ownership and disposition of any Securities offered thereunder by an initial investor who is a U.S. person (within the meaning of the U.S. Internal Revenue Code), including, to the extent applicable, any such consequences relating to Securities payable in a currency other than the U.S. dollar, issued at an original issue discount for U.S. federal income tax purposes or containing early redemption provisions or other special items.

LEGAL MATTERS

Unless otherwise specified in the Prospectus Supplement relating to any offering of Securities, certain matters under Canadian law relating to the offering of the Securities under this Prospectus will be passed upon for us by Ogilvy Renault LLP, Montreal, Canada and certain legal matters under U.S. law will be passed upon for us by Ropes & Gray LLP. In addition, certain legal matters in connection with any offering of Securities under this Prospectus will be passed upon for any underwriters, dealers or agents by counsel to be designated at the time of the offering by such underwriters, dealers or agents with respect to matters of Canadian and U.S. law.

The partners and associates of Ogilvy Renault LLP as a group beneficially own, directly or indirectly, less than 1% of our outstanding Common Shares.

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EXPERTS

The consolidated financial statements, financial statement schedules and management s assessment of the effectiveness of internal control over financial reporting (which is included in Management s Report on Internal Control over Financial Reporting) incorporated in this Prospectus by reference to the Annual Report on Form 20-F of Aeterna Zentaris Inc. for the year ended December 31, 2008 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

RECONCILIATION TO U.S. GAAP

Our audited annual consolidated balance sheets as at December 31, 2008 and 2007 and our audited annual consolidated statements of earnings (loss), changes in shareholders equity, comprehensive income (loss) and cash flows for each of the years in the three-year period ended December 31, 2008 and the financial statement schedules thereto, included in our annual report on Form 20-F for the financial year ended December 31, 2008 (filed in Canada with the Canadian securities authorities in lieu of an annual information form), filed with the SEC on March 30, 2009, were prepared in accordance with Canadian GAAP that differ in some respects from U.S. GAAP. We have reconciled our financial results for significant differences between Canadian GAAP and U.S. GAAP in accordance with the instructions of Item 18 of SEC Form 20-F as set out in Note 27 to our audited annual consolidated financial statements as of and for the financial year ended December 31, 2008.

Our unaudited interim consolidated financial statements for the three- and nine-month periods ended September 30, 2009 and 2008, including the notes thereto, included as Exhibit 99.1 to our report on Form 6-K furnished to the SEC on November 12, 2009, were prepared in accordance with Canadian GAAP. Financial statement readers should understand that there are certain significant differences between Canadian GAAP and U.S. GAAP. In order to facilitate the understanding of the differences that would have arisen had these financial statements been presented in accordance with U.S. GAAP, refer to Note 27 to our audited annual consolidated financial statements as of and for the year ended December 31, 2008 and to Note 14 to our unaudited interim consolidated financial statements for the three- and nine-month periods ended September 30, 2009 and 2008. In addition, financial statement readers should refer to Note 2 to our unaudited interim consolidated financial statements for the three- and nine-month periods ended September 30, 2009 and 2008 that describes Canadian GAAP accounting changes that have been adopted by the Company during that period and to Note 14 that describes U.S. GAAP accounting changes that have been adopted by the Company during the same period. The adoption of these accounting policies by the Company is not expected to result in any additional significant differences in 2009 between Canadian GAAP and U.S. GAAP.

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PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 8. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Under Section 124 of the *Canada Business Corporations Act*, the registrant may indemnify a present or former director or officer of the registrant or another individual who acts or acted at the registrant s request as a director or officer, or an individual acting in a similar capacity, of another entity, against all costs, charges and expenses, including an amount paid to settle an action or satisfy a judgment, reasonably incurred by the individual in respect of any civil, criminal, administrative, investigative or other proceeding in which the individual is involved because of that association with the registrant or other entity. The registrant may not indemnify an individual unless the individual (i) acted honestly and in good faith with a view to the best interests of the registrant or, as the case may be, to the best interests of the other entity for which the individual acted as director or officer or in a similar capacity at the registrant s request, and (ii) in the case of a criminal or administrative action or proceeding that is enforced by a monetary penalty, had reasonable grounds for believing that his or her conduct was lawful. Such indemnification may be made in connection with an action by or on behalf of the registrant or other entity to procure a judgment in its favor only with court approval. A director or officer is entitled to indemnification from the registrant as a matter of right if he or she was not judged by the Court or other competent authority to have committed any fault or omitted to do anything that he or she ought to have done and fulfilled the conditions set forth above. The registrant may advance moneys to a director, officer or other individual for the costs, charges and expenses of a proceeding referred to above. The individual shall repay the moneys if he or she does not fulfill the conditions set forth above to qualify for indemnification.

In accordance with provisions of the *Canada Business Corporations Act* described above, the by-laws of the registrant provide that the registrant shall indemnify a director or officer of the registrant, a former director or officer of the registrant or a person who acts or acted at the registrant s request as a director or officer of a body corporate of which the registrant is or was 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 such person in respect of any civil, criminal or administrative action or proceeding to which such person is made a party by reason of being or having been a director or officer of the registrant or such body corporate, if: (a) the person acted honestly and in good faith with a view to the best interests of the registrant and (b) in the case of criminal or administrative action or proceeding that is enforced by a monetary penalty, the person had reasonable grounds for believing that their conduct was lawful. The registrant may 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 the registrant or for any corporation controlled by the registrant, and to secure such director or other person against any loss by the pledge of all or part of the movable or immovable property of the registrant through the creation of a hypothec or any other real right in all or part of such property or in any other manner.

The by-laws of the registrant also provide that the registrant may, to the extent permitted by the *Canada Business Corporations Act*, purchase and maintain insurance for the benefit of any person referred to above against any such liability as the board of directors may from time to time determine.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers or persons controlling the registrant pursuant to the foregoing provisions, the registrant has been informed that in the opinion of the U.S. Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

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ITEM 9. EXHIBITS

See Exhibit Index following the signature pages of this Registration Statement.

ITEM 10. UNDERTAKINGS

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a further post-effective amendment to this registration statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the Calculation of Registration Fee table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

Provided, *however*, that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) of this section do not apply if the registration statement is on Form S-3 or Form F-3 and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to section 13 or section 15(d) of the Exchange Act that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) To file a post-effective amendment to the registration statement to include any financial statements required by Item 8.A. of Form 20-F at the start of any delayed offering or throughout a continuous offering. Financial statements and information otherwise required by Section 10(a)(3) of the Securities Act of 1933 need not be furnished, *provided*, that the registrant includes in the prospectus, by means of a post-effective amendment, financial statements required pursuant to this paragraph (a)(4) and other information necessary to ensure that all other information in the prospectus is at least as current as the date of those financial statements. Notwithstanding the foregoing, with respect to registration statements on Form F-3, a post-effective amendment need not be filed to include financial statements and information required by Section 10(a)(3) of the Securities Act of 1933 or Rule 3-19 of Regulation S-X if such financial statements and information are contained in periodic reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the Form F-3.

(5) That, for the purpose of determining liability under the Securities Act to any purchaser:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the

initial *bona fide* offering thereof. *Provided*, *however*, that no statement made in a registration statement or prospectus that is

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part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(6) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant s annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan s annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offering therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(c) The undersigned registrant hereby undertakes that:

(i) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act of 1933 shall be deemed to be part of the registration statement as of the time it was declared effective.

(ii) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(d) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form F-3 and has duly caused this Amendment No. 1 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Quebec, Province of Quebec, Canada, on March 12, 2010.

Æterna Zentaris Inc.

By: /s/ Dennis Turpin

Dennis Turpin
Senior Vice President and
Chief Financial Officer

Pursuant to the requirements of the Securities Act of 1933, this Amendment No. 1 to the Registration Statement has been signed by the following persons in the capacities and on the dates indicated below.

Signature	*Title*	*Date*
*	President and Chief Executive Officer and Director (Principal Executive Officer)	March 12, 2010
Juergen Engel		
/s/ Dennis Turpin	Senior Vice President and Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	March 12, 2010
Dennis Turpin		
*	Senior Vice President, Administration and Legal Affairs	March 12, 2010
Matthias Seeber		
*	Director and Executive Chairman of the Board	March 12, 2010
Juergen Ernst		
*	Director	March 12, 2010
Marcel Aubut		
*	Director	March 12, 2010
Martha Byorum		
*	Director	March 12, 2010
José P. Dorais		

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Signature	*Title*	*Date*
*	Director	March 12, 2010
Pierre Lapalme		
*	Director	March 12, 2010
Pierre Laurin		
*	Director	March 12, 2010
Gérard Limoges		
*	Director	March 12, 2010
Pierre MacDonald		
*	Director	March 12, 2010
Gerald Martin		

*By /s/ Dennis Turpin
Dennis Turpin
Attorney-in-fact

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AUTHORIZED REPRESENTATIVE

Pursuant to the requirements of Section 6(a) of the Securities Act of 1933, the undersigned has signed this Amendment No. 1 to the Registration Statement, solely in the capacity of the duly authorized representative of Æterna Zentaris Inc. in the United States, on March 12, 2010.

Æterna Zentaris, Inc.

By: /s/ Dennis Turpin

Dennis Turpin
Authorized Signatory

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EXHIBIT INDEX

Exhibit Number	Description
1.1*	Form of Underwriting Agreement.
4.1***	Restated Articles of Incorporation of the registrant.
4.2	Code of General By-Laws of the registrant (incorporated by reference to Exhibit 1.2 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).
4.3	Amended and Restated Shareholder Rights Plan Agreement between the registrant and Computershare Trust Company of Canada dated as of March 5, 2007 (incorporated by reference to Exhibit 2 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).
4.5*	Form of Warrant Agreement.
5.1***	Opinion of Ogilvy Renault LLP.
23.1***	Consent of Ogilvy Renault LLP (included in Exhibit 5.1).
23.2**	Consent of PricewaterhouseCoopers LLP.
24.1***	Power of Attorney.

* To be filed, if necessary, subsequent to the effectiveness of this Registration Statement by an amendment to this Registration Statement or as an exhibit to a report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, including any Report of Foreign Private Issuer on Form

6-K, and incorporated herein by reference.

** Filed herewith.

*** Previously filed.