Aeterna Zentaris Inc.
Form 20-F
March 30, 2010
Table of Contents

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 20-F

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

OR

x Annual Report Pursuant to Section 13 or 15(d) of The Securities Exchange Act of 1934 for the fiscal year ended December 31, 2009

OR

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

OR

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

Commission file number 0-30752

ÆTERNA ZENTARIS INC.

(Exact Name of Registrant as Specified in its Charter)

Not Applicable
(Translation of Registrant s Name into English)

Canada
(Jurisdiction of Incorporation)

1405 du Parc-Technologique Blvd.
Quebec City, Quebec
Canada, G1P 4P5

(Address of Principal Executive Offices)

Dennis Turpin

Telephone: 418-652-8525

E-mail: dturpin@aezsinc.com

1405 du Parc-Technologique Blvd.
Quebec City, Quebec
Canada, G1P 4P5

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

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

Title of Each Class	**Name of Each Exchange on Which Registered**
Common Shares	NASDAQ Global Market Toronto Stock Exchange

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

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

Indicate the number of outstanding shares of each of the issuer s classes of capital or common stock as of the close of the period covered by the annual report: 63,089,954 common shares as of December 31, 2009.

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

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes o No x

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes o No x

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

Large accelerated filer o	Accelerated filer x	Non-accelerated filer o

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

U.S. GAAP o	International Financial Reporting Standards as issued by the International Accounting Standards Board o	Other x

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

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

Table of Contents

Basis of Presentation

General

Except where the context otherwise requires, all references in this annual report on Form 20-F (Form 20-F) to the Company , Æterna Zentaris Inc. , we , us , our or similar words or phrases are to Æterna Zentaris Inc. and its subsidiaries, taken together. In this annual report, references to and US$ are to United States dollars and references to CAN$ are to Canadian dollars. Unless otherwise indicated, the statistical and financial data contained in this annual report are presented as at December 31, 2009.

Forward-Looking Statements

This annual report contains forward-looking statements made pursuant to the safe harbor provisions of the U.S. Securities Litigation Reform Act of 1995. Forward-looking statements involve known and unknown risks and uncertainties, which could cause the Company s actual results to differ materially from those in the forward-looking statements. Such risks and uncertainties include, among others, the availability of funds and resources to pursue R&D projects, the successful and timely completion of clinical studies, the ability of the Company to take advantage of business opportunities in the pharmaceutical industry, uncertainties related to the regulatory process and general changes in economic conditions. Investors should consult the Company s quarterly and annual filings with the Canadian and U.S. securities commissions for additional information on risks and uncertainties relating to the forward-looking statements. Investors are cautioned not to rely on these forward-looking statements. The Company does not undertake to update these forward-looking statements and we disclaim any obligation to update any such factors or to publicly announce the result of any revisions to any of the forward-looking statements contained herein to reflect future results, events or developments except if we are requested to do so by a governmental authority or applicable law.

Table of Contents

TABLE OF CONTENTS

GENERAL INFORMATION

			Page
PART I			**1**
Item 1.	Identity of Directors, Senior Management and Advisers		1
	A.	Directors and senior management	1
	B.	Advisors	1
	C.	Auditors	1
Item 2.	Offer Statistics and Expected Timetable		1
	A.	Offer statistics	1
	B.	Method and expected timetable	1
Item 3.	Key Information		1
	A.	Selected financial data	1
	B.	Capitalization and indebtedness	4
	C.	Reasons for the offer and use of proceeds	4
	D.	Risk factors	4
Item 4.	Information on the Company		17
	A.	History and development of the Company	17
	B.	Business overview	18
	C.	Organizational structure	50
	D.	Property, plants and equipment	50
Item 4A.	Unresolved Staff Comments		50
Item 5.	Operating and Financial Review and Prospects		51
Item 6.	Directors, Senior Management and Employees		78
	A.	Directors and senior management	78
	B.	Compensation	81
	C.	Board practices	93
	D.	Employees	94
	E.	Share ownership	95
Item 7.	Major Shareholders and Related Party Transactions		95
	A.	Major shareholders	95
	B.	Related party transactions	96
	C.	Interests of experts and counsel	96
Item 8.	Financial Information		96
	A.	Consolidated statements and other financial information	96
	B.	Significant changes	96
Item 9.	The Offering and Listing		97
	A.	Offer and listing details	97
	B.	Plan of distribution	97
	C.	Markets	97
	D.	Selling shareholders	97
	E.	Dilution	98
	F.	Expenses of the issuer	98
Item 10.	Additional Information		98
	A.	Share capital	98
	B.	Memorandum and articles of association	98
	C.	Material contracts	107

D.	Exchange controls	108
E.	Taxation	109
F.	Dividends and paying agents	114
G.	Statement by experts	114
H.	Documents on display	114

Table of Contents

	I.	Subsidiary information	114
Item 11.	Quantitative and Qualitative Disclosures About Market Risk		114
Item 12.	Description of Securities Other than Equity Securities		116
	A.	Debt securities	116
	B.	Warrants and rights	116
	C.	Other securities	116
	D.	American depositary shares	116
PART II			**116**
Item 13.	Defaults, Dividend Arrearages and Delinquencies		116
Item 14.	Material Modification to the Rights of Security Holders and Use of Proceeds		116
Item 15.	Controls and Procedures		116
Item 16.	[Reserved]		117
Item 16A.	Audit Committee Financial Expert		117
Item 16B.	Code of Ethics		117
Item 16C.	Principal Accountant Fees and Services		117
	A.	Audit Fees	117
	B.	Audit-related Fees	117
	C.	Tax Fees	118
	D.	All Other Fees	118
	E.	Audit Committee Pre-Approval Policies and Procedures	118
Item 16D.	Exemptions from the Listing Standards for Audit Committees		118
Item 16E.	Purchases of Equity Securities by the Issuer and Affiliated Purchasers		118
Item 16F.	Changes in Registrant s Certifying Accountant		118
Item 16G.	Corporate Governance		118
PART III			**119**
Item 17.	Financial Statements		119
Item 18.	Financial Statements		119
Item 19.	Exhibits		171

Table of Contents

PART I

Item 1. Identity of Directors, Senior Management and Advisers

A. Directors and senior management

Not applicable.

B. Advisors

Not applicable.

C. Auditors

Not applicable.

Item 2. Offer Statistics and Expected Timetable

A. Offer statistics

Not applicable.

B. Method and expected timetable

Not applicable.

Item 3. Key Information

A. Selected financial data

The selected financial data should be read in conjunction with our audited consolidated financial statements and the related notes included elsewhere in this annual report, and Item 5. Operating and Financial Review and Prospects of this annual report.

Table of Contents

Consolidated Statements of Operations Data

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

Canadian GAAP

	Years Ended December 31,				
	2009	**2008**	**2007**	**2006**	**2005**
	$	**$**	**$**	**$**	**$**
Revenues	63,237	38,478	42,068	38,799	44,813
Operating expenses					
Cost of sales, excluding depreciation and amortization	16,501	19,278	12,930	11,270	8,250
Research and development costs	44,217	57,448	39,248	27,422	25,544
Research and development tax credits and grants	(403)	(343)	(2,060)	(1,564)	(317)
Selling, general and administrative expenses	16,040	17,325	20,403	16,478	14,403
Depreciation and amortization					
Property, plant and equipment	3,285	1,515	1,562	2,816	1,665
Intangible assets	7,555	5,639	4,004	6,148	4,279
Impairment of long-lived assets held for sale			735		
	87,195	100,862	76,822	62,570	53,824
Loss from operations	(23,958)	(62,384)	(34,754)	(23,771)	(9,011)
Other income (expenses)					
Interest income	349	868	1,904	1,441	1,235
Interest expense					
Long-term debt and convertible term loans			(85)	(1,270)	(6,979)
Other	(5)	(118)		(163)	(31)
Foreign exchange (loss) gain	(1,110)	3,071	(1,035)	319	(87)
Loss on disposal of long-lived assets held for sale		(35)			
Loss on disposal of equipment		(44)	(28)		
Gain on disposal of long-term investment				409	
	(766)	3,742	756	736	(5,862)
Share in the results of an affiliated company				1,575	
Loss before income taxes from continuing operations	(24,724)	(58,642)	(33,998)	(21,460)	(14,873)
Income tax (expense) recovery		(1,175)	1,961	29,037	(609)
Net (loss) earnings from continuing operations	(24,724)	(59,817)	(32,037)	7,577	(15,482)
Net (loss) earnings from discontinued operations			(259)	25,813	26,053

Net (loss) earnings for the year	(24,724)	(59,817)	(32,296)	33,390	10,571
Net (loss) earnings per share from continuing operations					
Basic	(0.43)	(1.12)	(0.61)	0.14	(0.34)
Diluted	(0.43)	(1.12)	(0.61)	0.14	(0.34)
Net earnings per share from discontinued operations					
Basic				0.50	0.57
Diluted				0.48	0.57
Net (loss) earnings per share					
Basic	(0.43)	(1.12)	(0.61)	0.64	0.23
Diluted	(0.43)	(1.12)	(0.61)	0.62	0.23
Weighted average number of shares					
Basic	56,864,484	53,187,470	53,182,803	52,099,290	46,139,814
Diluted	56,864,484	53,187,470	53,182,803	52,549,260	46,139,814

Table of Contents

US GAAP

	Years ended December 31,				
	2009	**2008**	**2007**	**2006**	**2005**
	$	**$**	**$**	**$**	**$**
Net (loss) earnings for the year	(16,794)	(56,070)	(37,428)	34,262	15,970
Of which:					
Net (loss) earnings from continuing operations	(16,794)	(56,070)	(36,415)	8,449	(10,083)
Net (loss) earnings from discontinued operations			(1,013)	25,813	26,053
Net (loss) earnings per share from continuing operations					
Basic	(0.30)	(1.05)	(0.68)	0.16	(0.22)
Diluted	(0.30)	(1.05)	(0.68)	0.16	(0.22)
Net (loss) earnings per share from discontinued operations					
Basic			(0.02)	0.50	0.56
Diluted			(0.02)	0.49	0.56
Net (loss) earnings per share					
Basic	(0.30)	(1.05)	(0.70)	0.66	0.34
Diluted	(0.30)	(1.05)	(0.70)	0.65	0.34
Weighted average number of shares					
Basic	56,864,484	53,187,470	53,182,803	52,099,290	46,139,814
Diluted	56,864,484	53,187,470	53,182,803	52,549,260	46,139,814

Consolidated Balance Sheet Data

(in thousands of US dollars)

Canadian GAAP

	As at December 31,				
	2009	**2008**	**2007**	**2006**	**2005**
	$	**$**	**$**	**$**	**$**
Cash and cash equivalents	38,100	49,226	10,272	8,939	12,234
Short-term investments		493	31,115	51,550	22,370
Working capital	29,745	39,554	37,325	85,413	99,502
Restricted cash	878				
Total assets	86,262	108,342	123,363	223,491	419,785
Long-term debt and payable	143	172		687	29,866
Share capital	41,203	30,566	30,566	168,466	130,344

Shareholders equity	9,226	21,475	88,591	178,879	109,531

US GAAP

	As at December 31,				
	2009	**2008**	**2007**	**2006**	**2005**
	$	**$**	**$**	**$**	**$**
Cash and cash equivalents	38,100	49,226	10,272	8,939	12,234
Short-term investments		493	31,115	51,550	22,370
Working capital	29,745	39,554	37,325	85,413	99,502
Restricted cash	878				
Total assets	84,116	100,001	109,182	209,143	404,587
Long-term debt and payable	143	172		687	30,858
Share capital	33,226	22,589	22,589	160,489	129,750
Shareholders equity	5,729	13,134	74,410	169,704	99,797

Table of Contents

B. Capitalization and indebtedness

Not applicable.

C. Reasons for the offer and use of proceeds

Not applicable.

D. Risk factors

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 audited consolidated financial statements for the years ended December 31, 2009, 2008 and 2007, we had an accumulated deficit of $127.5 million as of December 31, 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 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 U.S. Food and Drug Administration (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.

Table of Contents

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.

Table of Contents

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;

- 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

Table of Contents

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 document 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 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.

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.

A substantial portion of our future revenues may be dependent upon our agreement with Keryx Biopharmaceuticals, Inc. (Keryx).

We currently expect that a substantial portion of our future revenues may be dependent upon our strategic partnership with Keryx. Under this strategic partnership, Keryx has significant development and commercialization responsibilities with respect to the development and sale of Perifosine. If Keryx were to terminate its agreement with us, fail to meet its obligations or otherwise decrease its level of efforts, allocation of resources or other commitments under this agreement, our future revenues and/or prospects could be negatively impacted and the development and commercialization of Perifosine would be interrupted. In addition, if Keryx does not achieve some or any of the development, regulatory and commercial milestones or if it does not achieve certain net sales thresholds as set forth in the agreement, we will not fully realize the expected economic benefits of the agreement. Further, the achievement of certain of the milestones under this strategic partnership agreement will depend on factors that are outside of our control and most are not expected to be achieved for several years, if at all. Any failure to successfully maintain our strategic partnership agreement could materially and adversely affect our ability to generate revenues.

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 audited consolidated financial statements for the years ended December 31, 2009, 2008 and 2007 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 audited consolidated financial statements for the years

Table of Contents

ended December 31, 2009, 2008 and 2007 that management believed that the Company had, as at December 31, 2009, sufficient financial resources to fund planned expenditures and other working capital needs for at least 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.

Table of Contents

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

Table of Contents

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.

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

Table of Contents

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.

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.

Table of Contents

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;

- 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 U.S. Securities and Exchange Commission (the SEC), including the documents incorporated into this annual report on Form 20-F. See, for example, Notes 4 and 26 to our audited consolidated balance sheets as at December 31, 2009 and 2008 and our audited consolidated statements of operations, changes in shareholders equity, comprehensive income (loss) and cash flows for each of the years in the three-year period ended December 31, 2009, which are included elsewhere in this annual report on Form 20-F.

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 the Tulane Educational Fund (Tulane), which provides for the payment by us of single-digit royalties on future worldwide net sales of cetrorelix and including Cetrotide®. 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 26 to our audited consolidated financial statements for the years ended December 31, 2009, 2008 and 2007 included in this annual report on Form 20-F).

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

Table of Contents

foreign regulatory submission. Furthermore, these third parties may also have relationships with other entities, some of which may be our competitors. In addition, they may not complete activities on schedule, or may not conduct our preclinical studies or clinical trials in accordance with regulatory requirements or our trial design. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, our efforts to obtain regulatory approvals for, and commercialize, our product candidates may be delayed or prevented.

In carrying out our operations, we are dependent on a stable and consistent supply of ingredients and raw materials.

There can be no assurance that we, our contract manufacturers or our 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.

Table of Contents

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.

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

As a public company, we are required to comply with Section 404 of the Sarbanes-Oxley Act (Section 404) and National Instrument 52-109 *Certification of Disclosure in Issuers Annual and Interim Filings*, and we have to obtain an annual attestation from our independent auditors regarding our internal control over financial reporting. In any given year, we cannot be certain as to the timing of completion of our internal control evaluation, testing and remediation actions or of their impact on our operations. Upon completion of this process, we may identify control deficiencies of varying degrees of severity under applicable SEC and Public Company Accounting Oversight Board rules and regulations. As a public company, we are required to report, among other things, control deficiencies that constitute material weaknesses or changes in internal controls that, or that are reasonably likely to, materially affect internal controls over financial reporting. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company s annual financial statements will not be prevented or detected on a timely basis. If we fail to comply with the requirements of Section 404, Canadian requirements or report a material weakness, we might be subject to regulatory sanction and investors may lose confidence in our financial statements, which may be inaccurate if we fail to remedy such material weakness.

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

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

We believe that we were not a PFIC for the 2009 taxable year. However, since the fair market value of our assets may be determined in large part by the market price of our Common Shares, which is likely to fluctuate, and the composition of our income and assets will be affected by how, and how quickly, we spend any cash that is raised in any financing transaction, no assurance can be provided that we will not be classified as a PFIC for the 2010 taxable year and for any future taxable year.

Table of Contents

PFIC characterization could result in adverse U.S. federal income tax consequences to U.S. Holders. In particular, absent certain elections, a U.S. Holder would be subject to U.S. federal income tax at ordinary income tax rates, plus a possible interest charge, in respect of a gain derived from a disposition of our common shares, as well as certain distributions by us. If we are treated as a PFIC for any taxable year, a U.S. Holder may be able to make an election to mark to market Common Shares each taxable year and recognize ordinary income pursuant to such election based upon increases in the value of the Common Shares. However, a mark-to-market election is not available to be made in respect of a warrant.

Under recently enacted U.S. tax legislation and subject to future guidance, if we are a PFIC, U.S. Holders will be required to file, for returns due after March 18, 2010, an annual information return with the IRS relating to their ownership of our Common Shares. Although expected, no guidance has yet been issued about such return, including on the information required to be reported on such return, the form of the return, or the due date for the return.

For a more detailed discussion of the potential tax impact of us being a PFIC, see Item 10.E. Taxation Certain U.S. Federal Income Tax Considerations.

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. See Item 5. Operating and Financial Review and Prospects .

We may incur losses associated with foreign currency fluctuations.

Our operations are in many instances conducted in currencies other than the euro, our functional currency. Fluctuations in the value of currencies could cause us to incur currency exchange losses. We do not currently employ a hedging strategy against exchange rate risk. We cannot assert with any assurance that we will not suffer losses as a result of unfavorable fluctuations in the exchange rates between the 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 our common shares are delisted from the TSX or NASDAQ, investors may have difficulty in disposing of our common shares held by them.

Our common shares are currently listed and traded only on the Toronto Stock Exchange (the TSX) and National Association of Securities Dealers Automated Quotations (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 CAN$0.57 to CAN$3.11 per share on the TSX, and from $0.46 to $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:

Table of Contents

- clinical and regulatory developments regarding our product candidates;
- delays in our anticipated development or commercialization timelines;
- developments regarding current or future third-party collaborators;
- other announcements by us regarding technological, product development or other matters;
- arrivals or departures of key personnel;
- governmental or regulatory action affecting our product candidates and our competitors products in the 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 $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 $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 $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 $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 hares 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 annual report on Form 20-F, 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.

Table of Contents

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.

Item 4. Information on the Company

A. History and development of the Company

Æterna Zentaris Inc. is a late-stage drug development company specialized in oncology and endocrine therapy.

We were incorporated on September 12, 1990 under the Canada Business Corporations Act (the CBCA) and continue to be governed by the CBCA. Our registered 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 annual report.

On December 30, 2002, we acquired Zentaris AG, a biopharmaceutical company based in Frankfurt, Germany. Zentaris was a spin-off of Degussa AG and Asta Medica GmbH, a former pharmaceutical company. With this acquisition, the Company changed its risk profile and inherited an extensive and robust product pipeline with capabilities from drug discovery to commercialization with a particular focus on endocrine therapy and oncology. As part of the acquisition, we also inherited a very experienced pharmaceutical team along with a network of strategic pharmaceutical partners. The total consideration paid for the acquisition of Zentaris was $51.9 million, net of cash and cash equivalents acquired of $2.3 million, of which an amount of $26.7 million was paid in cash and the remaining amount of $25.2 million as a balance of purchase price.

In May 2004, we changed our name to Æterna Zentaris Inc. and on May 11, 2007, Zentaris GmbH was renamed Æterna Zentaris GmbH. Æterna Zentaris GmbH is our principal operating subsidiary.

On April 6, 2005, our former subsidiary Atrium Biotechnologies Inc. (now Atrium Innovations Inc.) (Atrium), completed its initial public offering in Canada and began trading on the TSX under the ticker symbol ATB.

Throughout 2006, as part of a thorough, strategic planning process, our management and Board of Directors (the Board) made the decision to spin off Atrium in two phases. On September 19, 2006, we initiated the first phase, a secondary offering in which we sold 3,485,000 Subordinate

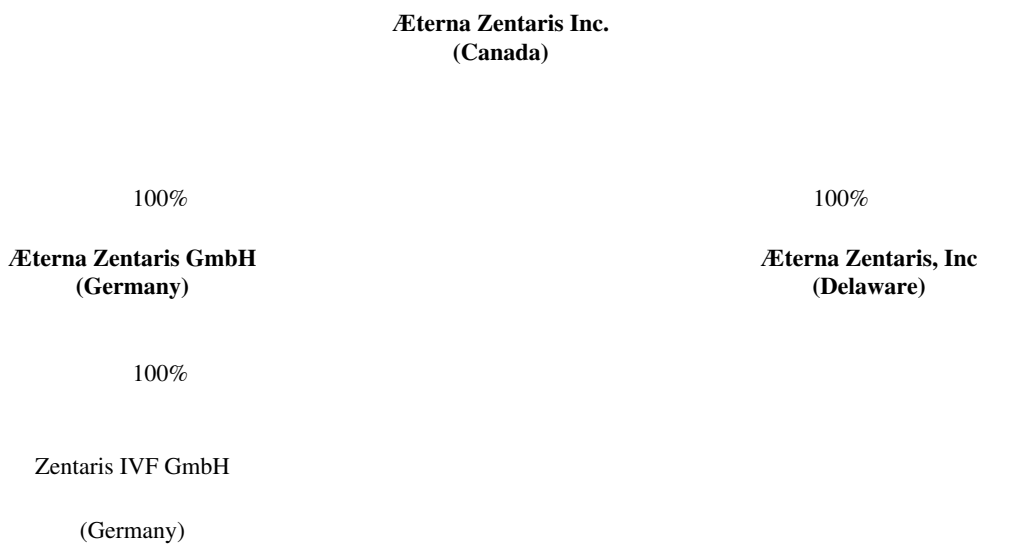
Voting Shares of Atrium at a price of CAN$15.80 per share. This secondary offering closed on October 18, 2006, generating net proceeds of nearly $45 million to Æterna Zentaris. With this transaction closed, our remaining interest in Atrium was 11,052,996 Subordinate Voting Shares representing 36.1% of its issued and outstanding shares. Therefore, we no longer had a controlling interest in Atrium as of October 18, 2006.

The second phase was to distribute our remaining interest in Atrium to our shareholders concurrently with a reduction of the stated capital of our common shares.

On December 15, 2006, our shareholders approved a reduction of the stated capital of our common shares in an amount equal to the fair market value of our remaining interest in Atrium by way of a special distribution in kind to all our shareholders. This special distribution was completed on January 2, 2007. For each common share held as of the record date of December 29, 2006, our shareholders received 0.2078824 Subordinate Voting Shares of Atrium. In May 2007, we opened an office in the United States, located at 20 Independence Boulevard, Warren, New Jersey 07059-2731.

Table of Contents

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



From the formation of Atrium as our subsidiary in 1999 until the distribution of our remaining interest in Atrium on January 2, 2007, Atrium did not declare or pay any dividends to its shareholders. Since the disposition of our entire interest in Atrium, we have not had access to the liquidity or cash flows generated by Atrium. Our current drug development strategy focuses mainly on our late-stage compounds perifosine (Phase 3 in multiple myeloma) and our Phase 2 program in multiple cancers, AEZS-108 (Phase 2 in ovarian and endometrial cancer) and AEZS-130 (Solorel™) (Phase 3 as diagnostic test for adult growth hormone deficiency), as well as on targeted earlier-stage compounds, as depicted in the chart reproduced under the heading, Our Product Pipeline .

Our common shares are listed for trading on the TSX under the trading symbol AEZ and on the NASDAQ under the trading symbol AEZS.

The Company s agent for SEC matters in the United States is its wholly-owned subsidiary, Æterna Zentaris, Inc., located at 20 Independence Boulevard, Warren, New Jersey 07059-2731.

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

B. Business overview

We are a late-stage drug development company specialized in oncology and endocrine therapy. 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 (Solorel™) as a growth hormone (GH) stimulation test for the diagnosis of GH deficiency in adults (AGHD).

Recent Developments

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

Table of Contents

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.

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 AEZS-130 (Solorel) as a GH stimulation test for the diagnosis of AGHD.

AEZS-130

AEZS-130, 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.

Table of Contents

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.

Our product pipeline

Pipeline table

Status of our drug pipeline as at March 22, 2010

Discovery	Preclinical	Phase 1	Phase 2	Phase 3	Commercial
120,000 compound library	AEZS-120 Prostate cancer vaccine (oncology) AEZS-129 Erk & PI3K Inhibitors (oncology) AEZS-127 ErPC (oncology) AEZS-123 Ghrelin receptor antagonist (endocrinology) AEZS-115	AEZS-112 (oncology) AEZS-130 Therapeutic in tumor induced cachexia (endocrinology)	Perifosine • Metastatic colon cancer • Kidney cancer • AEZS-108 • Ovarian cancer • Endometrial cancer	Perifosine • Multiple myeloma AEZS-130 (SolorelTM) • Diagnostic in adult growth hormone deficiency (endocrinology)	Cetrotide® (*in vitro* fertilization)

	Non-peptide LHRH antagonists (endometriosis & urology)			
Partners				
		Perifosine: **Keryx** North America **Handok** Korea (oncology)	Perifosine: **Keryx** North America **Handok** Korea (oncology)	Cetrotide®: **Merck Serono** (World ex-Japan) **Nippon Kayaku / Shionogi** Japan

Table of Contents

ONCOLOGY

SIGNAL TRANSDUCTION INHIBITORS

Perifosine

Perifosine is an alkylphosphocholine compound with structural similarity to phospholipids, which are the main constituents of cellular membranes, and it is an active ingredient with anti-tumor capacities. In tumor cells, perifosine has demonstrated interactions with vital signal transduction mechanisms and induction of programmed cell death (apoptosis).

Perifosine exerts a marked cytotoxic effect in animal and human tumor cell lines. The most sensitive cancer cell lines were larynx carcinoma, breast, small cell lung, prostate and colon. Based on the *in vitro* trials, the mode of action of perifosine appears to be fundamentally different from that of currently available cytotoxics. Pharmacodynamic data have demonstrated that perifosine possesses anti-tumor activity, including tumor models that are resistant to currently available agents for cancer therapy. This activity is based on a direct and relatively specific action on tumors.

In preclinical and clinical Phase 1 trials (solid tumors), this orally administered agent has been found to have good tolerability. Five Phase 1 trials have been conducted on perifosine, including one trial of perifosine in combination with radiotherapy.

Based on findings in various tumor models, the U.S. National Cancer Institute, along with our North American partner, Keryx, investigated additional dosage regimens of perifosine in oncology patients. A number of screening Phase 2 studies examined perifosine as a single agent or in combination in several tumor types. Encouraging results lead to further development in specific indications.

Perifosine, the first-in-class AKT inhibitor in multiple Phase 2 studies, is being developed as an orally active anti-cancer agent.

Table of Contents

Perifosine Anti-cancer agent

Perifosine Multiple myeloma (MM)

In June and December 2007, Keryx announced preliminary positive Phase 1 and Phase 2 data on perifosine in patients with relapsed/refractory MM. Data demonstrated clinical activity of perifosine in combination with bortezomib and dexamethasone, and with lenalidomide plus dexamethasone.

In December 2008, Keryx presented final results of the Phase 1 clinical trial in which patients with relapsed or refractory MM were administered a combination of perifosine + lenalidomide and dexamethasone. Four cohorts of ≥ 6 patients each were enrolled and perifosine dose was 50 or 100 mg (daily), lenalidomide dose was 15 or 25 mg for days 1 to 21 and dexamethasone dose was 20 mg (for days 1-4; 9-12; and 17-20 for 4 cycles, followed by 20 mg for days 1-4) in 28-day cycles. To limit dexamethasone-related toxicities, the protocol was amended to use weekly dexamethasone (40 mg), applying to cohorts 3, 4, and the Maximal Tolerated Dose (MTD) cohort. Dose Limiting Toxicity (DLT) was defined as grade (G) 3 non-hematologic toxicity, G4 neutropenia for 5 days and/or neutropenic fever, or platelets <25,000/mm3 on >1 occasion despite transfusion. Response was assessed by modified EBMT criteria. To be enrolled, patients had to have received at least one but no more than four prior therapies. Patients refractory to lenalidomide/dexamethasone were excluded. 32 patients (17 men and 15 women, median age 61 years old, range 37-80) were enrolled; 6 patients in cohort 1 (Perifosine 50 mg, lenalidomide 15 mg, Dexamethasone 20 mg); 6 patients in cohort 2 (Perifosine 50 mg, lenalidomide 25 mg, Dexamethasone 20 mg); 8 patients in cohort 3 (Perifosine 100 mg, lenalidomide 15 mg, Dexamethasone 40mg/week); 6 patients in cohort 4 (Perifosine 100 mg, lenalidomide 25 mg, Dexamethasone 40 mg/week) and 6 patients at MTD (Cohort 4). Median prior lines of treatment was 2 (range 1-4). Prior therapy included dexamethasone (94%), thalidomide (83%), bortezomib (47%), and stem cell transplant (47%). 37% of patients had progressed on prior Thalidomide/Dexamethasone. Two patients did not complete one full cycle (non-compliance and adverse event not related to study drugs both in cohort 3) and were not included in the safety and efficacy analysis. Of the 30 patients evaluable for safety, the most common (≥ 10%) grade 1 / 2 events included nausea (13%); diarrhea (17%); weight loss (17%); upper respiratory infection (23%); fatigue (30%); thrombocytopenia (20%); neutropenia (20%); hypophosphatemia (23%); increased creatinine (23%); anemia (36%); hypercalcemia (47%). Grade 3 / 4 adverse events ≥ 5% included neutropenia (20%); hypophosphatemia (17%); thrombocytopenia (13%); anemia (10%), fatigue (7%). There was one reported DLT in cohort 3 (nausea). Lenalidomide was reduced in 8 patients, Perifosine reduced in 8 patients and Dexamethasone reduced in 6 patients. All 30 patients in the analysis were evaluable for response, with best response as follows:

Response: N = 30	**N (%)**	**Duration (wks)**	**ORR (≥PR)**
Near Complete Response (nCR)	2 (7%)	79+, 15+	
Very Good Partial Response (VGPR)	3 (10%)	62+, 34, 17	15 (50%)
Partial Response (PR)	10 (33%)	26+ (range 11 54+)	
Minimal Response (MR)	6 (20%)	17+ (range 9 - 30+)	
Stable Disease (SD)	7 (23%)	14+ (range 8 19)	
Progression (PD)	2 (7%)	8, 4	
stable disease: < 25% reduction in M-protein			

Patients have tolerated the treatment regimen of Perifosine + Lenalidomide + Dexamethasone well with manageable toxicity, and with encouraging clinical activity demonstrated by an overall response rate (ORR) (> PR) of 50%.

Updated results of this study were presented in February 2009 at the 12th International Multiple Myeloma Meeting by our partner Keryx. Results indicated that Perifosine in combination with Lenalidomide (Revlimid) + dexamethasone continues to be well tolerated, with a median

progression-free survival in responding patients of 10.9 months. Median overall survival still has not been reached now at 17 months. Nine patients remain on active treatment.

Also in December 2008 during the meeting of the American Society of Hematology, Keryx presented results of a Phase 1/2 multicenter trial of perifosine + bortezomib in patients with relapsed or relapsed/refractory MM who were previously relapsed from or refractory to bortezomib ± dexamethasone. The Phase I stage of the study enrolled a total of 18 patients in 4 cohorts of 3 patients each with dosing of Perifosine 50 mg or 100 mg (daily) and bortezomib 1.0 or 1.3 mg/m2 (on day 1, 4, 8, 11) in 21-day cycles. The selected dose for Phase 2 was perifosine 50 mg once daily + bortezomib 1.3 mg/m2 (on day 1, 4, 8, 11) in 21-day cycles, with a planned enrollment of 64 patients. Dexamethasone 20 mg (on day of and after each bortezomib dose) could be added in patients with progressive disease (PD). For the Phase 1 portion, Dose limiting toxicity (DLT) was defined as any grade (G) 3 non-hematologic toxicity, G4 neutropenia for 5 day and/or neutropenic fever, or platelets <10,000/mm3 on more than one occasion despite transfusion. Response was assessed by modified EBMT and Uniform criteria. A total of 76 patients have been enrolled (18 patients in Phase 1 and 58 patients in Phase 2) comprised of 45 men and

Table of Contents

31 women, median age 63 years old, (range 41-89). 84% of patients had relapsed/refractory MM, with a median of 6 lines of prior treatment (range 2-13). Prior therapy included bortezomib (100%), dexamethasone (95%), thalidomide (79%), lenalidomide (71%) and stem cell transplant (57%). 63 patients have completed at least one cycle and were evaluable for safety (13 patients are currently not evaluable; 3 were removed in cycle 1 and 10 are too early in their treatment). Most common (>10%) grade 1 / 2 events were nausea, diarrhea, fatigue and myelosuppression, which were manageable with supportive care and growth factors. Grade 3 / 4 adverse events >5% included thrombocytopenia (40%); lymphopenia (36%); neutropenia (21%); anemia (14%); hyponatremia (13%); leukopenia (11%); proteinuria (8%), and upper respiratory infection (6%). No deep vein thrombosis has been seen, and only one worsening peripheral neuropathy from grade 1 to 3 has been reported to date. Two patients had perifosine reduced to 50 mg (nausea, fatigue) in the Phase 1 cohort, and 7 patients had bortezomib dose reductions primarily due to hematologic toxicity. 57 patients have completed at least 2 cycles and are evaluable for response, with best response to perifosine + bortezomib (+/- dexamethasone) as follows:

		CR		PR		MR		ORR		SD	
All Patients: Best Response	**N=57**	**2**	**4%**	**7**	**12%**	**14**	**25%**	**23**	**40%**	**23**	**40%**
perifosine + bortezomib	57	1	2%	5	9%	8	14%	14	24%	17	30%
With dexamethasone added*	31	1	2%	2	3%	6	11%	9	16%	6	11%

(* as a subset of the evaluable population)

9 of 76 patients (12%) rapidly progressed without response or stable disease, including 6 patients in whom dexamethasone was also added. As of August 2008, the median time to progression (TTP) for patients achieving ≥ PR is 34 weeks, and for all patients achieving ≥ MR is 33 weeks. Perifosine in combination with bortezomib (+/- dexamethasone) was generally well tolerated and is remarkably active in a heavily pre-treated Bortezomib-exposed patient population, with an ORR of 40%, including an ORR of 37% and a median TTP of 9.25 months in responding but previously bortezomib-refractory patients.

Updated data for the effect of perifosine in combination with bortezomib +/- dexamethosone were reported at the 12th International Multiple Myeloma Meeting in February 2009 by our partner Keryx. Eighty-four patients were enrolled in a combined Phase I/II study (18 patients in the Phase I component and 66 patients in the Phase II component). At the time of this analysis, 73 patients were evaluable for response. Median prior lines of therapy was 5 (range 1 - 13), including; 100% of patients had been treated with bortezomib (50% of the patients were previously treated with at least 2 bortezomib-based therapies and 81% were previously treated with bortezomib plus dexamethasone); 98% of patients were previously treated with dexamethasone; 99% of patients were previously treated with lenalidomide (Revlimid) and/or thalidomide (Thalomid); and 57% of patients had prior stem cell transplant. No unexpected adverse events have been seen. Toxicities were manageable with supportive care and/or dose reductions as required.

Best response (MR or better) and stable disease (no progression for 3 months) to either perifosine + bortezomib (+/-dexamethasone) for patients previously relapsed from or refractory to prior bortezomib treatment was as follows:

Evaluable Patients	**CR**		**PR**		**MR**		**ORR**		**SD > 3 mos**	
Bortezomib Relapsed (n=20)	2	10%	6	30%	3	15%	11	55%	9	45%
Bortezomib Refractory (n=53)	1	2%	6	11%	10	19%	17	32%	24	45%
All Evaluable Patients (n=73)	3	4%	12	16%	13	18%	28	38%	33	45%

Patients who had previously relapsed on a bortezomib-based treatment had a median time to progression (TTP) of 8.5 months. The median TTP for all 73 evaluable study patients (both bortezomib relapsed and refractory) was 6.4 months. As stated in Keryx s February 26, 2009 press release, there were 16 patients remain on active treatment.

Updated efficacy and safety data as well as new survival data on the clinical activity of perifosine in combination with bortezomib (Velcade®) +/- dexamethasone in patients with relapsed/refractory multiple myeloma were presented by our partner Keryx during the ASH 2009 meeting in December 2009. Of the 73 evaluable patients, 53 patients (73%) were previously refractory to bortezomib (defined as progression on or within 60 days of treatment to a bortezomib-based regimen), including 44 patients who were refractory to the combination of bortezomib + dexamethasone. Twenty evaluable patients (27%) were relapsed to a prior bortezomib-based regimen. Best response for all 73 evaluable patients was as follows:

Table of Contents

Evaluable Patients	CR /nCR*		PR		MR		ORR		SD**	
All Evaluable Patients (n=73)	3	4%	13	18%	14	19%	30	41%	30	41%
Bortezomib Relapsed (n=20)	2	10%	7	35%	4	20%	13	65%	7	35%
Bortezomib Refractory (n=53)	1	2%	6	11%	10	19%	17	32%	23	43%

* nCR = Near Complete Response is defined as meeting the criteria for CR (non-detectable monoclonal protein by serum and urine), except with detectable monoclonal protein by immunofixation.

** SD = Stable Disease for a minimum of 3 months.

Approximately 60% (45 / 73) of patients demonstrated progression (or SD for 4 cycles) at some point in their treatment and received 20 mg dexamethasone, four times per week, in addition to perifosine plus bortezomib. Responses occurred both with patients taking perifosine in combination with bortezomib and with patients receiving the combination plus dexamethasone. Best response for each group was as follows:

Best Response	CR /nCR		PR		MR		ORR		SD	
Perifosine + Bortezomib (n=73)	2	3%	10	14%	6	8%	18	25%	19	26%
Dexamethasone added (n=45)	1	2%	6	13%	10	23%	17	38%	14	31%

Five patients achieved an initial response on perifosine + bortezomib alone, and subsequently responded again with the addition of dexamethasone. Three additional patients achieved stable disease on perifosine + bortezomib alone, and subsequently achieved stable disease again with the addition of dexamethasone.

Reported for the first time was median Progression-Free Survival (PFS) and Overall Survival (OS) data for all evaluable patients, as follows:

Evaluable Patients	Median PFS*	Median OS**
All Evaluable Patients (n=73)	6.4 months	25 months
	95% CI (5.3, 7.1)	95% CI (15.5, NR)

NR = Not Reached

* Median PFS and median TTP were identical, as no patient deaths occurred prior to progression.

** Kaplan Meier methodology was used to determine overall survival figures.

Of particular interest was the comparison of evaluable patients who were previously refractory and the patients who were relapsed to a bortezomib-based regimen. Median PFS and OS for bortezomib relapsed vs. refractory were as follows:

Bortezomib Relapsed vs. Refractory	Median PFS*	Median OS**
Bortezomib Relapsed (n=20)	8.8 months 95% CI (6.3, 11.2)	Not Reached at 38+ months 95% CI (25, NR)
Bortezomib Refractory (n=53)	5.7 months 95% CI (4.3, 6.4)	22.5 months 95% CI (12.3, NR)

* Median PFS and median TTP were identical, as no patient deaths occurred prior to progression.

** Kaplan Meier methodology was used to determine overall survival figures.

No unexpected adverse events have been observed. Toxicities were manageable with supportive care.

In August 2009, our partner Keryx announced that it has reached an agreement with the FDA regarding a Special Protocol Assessment (SPA) on the design of a Phase 3 trial for perifosine, in relapsed or relapsed/refractory multiple myeloma patients previously treated with bortezomib (Velcade®). The SPA provides agreement that the Phase 3 study design adequately addresses objectives in support of a regulatory submission. The study, entitled, A Phase 3 Randomized Study to Assess the Efficacy and Safety of Perifosine Added to the Combination of Bortezomib and Dexamethasone in Multiple Myeloma Patients Previously Treated with Bortezomib , will be a double-blind, placebo-controlled study comparing the efficacy and safety of perifosine vs. placebo when combined with bortezomib and dexamethasone. The trial, powered at 90%, will enroll approximately 400 patients with relapsed or relapsed/refractory multiple myeloma (patients can be relapsed from and refractory to all non-bortezomib based therapies, however, patients can only be relapsed (progressed > 60 days after

Table of Contents

discontinuing therapy) from prior bortezomib-based therapies). The primary endpoint is progression-free survival and secondary endpoints include overall response rate, overall survival and safety. The Phase 3 trial is a randomized (1:1), double-blind trial comparing the efficacy and safety of perifosine to placebo when combined with bortezomib and dexamethasone. Patients must have been previously treated with both bortezomib (Velcade®) and an immunomodulatory agent (Revlimid® or Thalidomid®) and previously treated with one to four prior lines of therapy. The primary endpoint is progression-free survival and secondary endpoints include overall response rate, overall survival and safety. We announced the initiation, by our partner Keryx, of the enrollment of patients for this Phase 3 trial on December 16, 2009. Enrolled patients will be randomized to bortezomib (Velcade®) at 1.3 mg/m2 days 1, 4, 8 and 11 every 21 days in combination with dexamethasone 20 mg on the day of and day after bortezomib (Velcade®) treatment, and either perifosine 50 mg daily or placebo. We expect a patient recruitment period of approximately 16-18 months, with study completion expected within approximately 20-22 months from today. Approximately 265 events (defined as disease progression or death) will trigger the un-blinding of the data.

In September 2009, our partner Keryx announced that it had received orphan-drug designation for perifosine from the FDA for the treatment of multiple myeloma. Orphan-drug designation is granted by the FDA Office of Orphan Drug Products to novel drugs or biologics that treat a rare disease or condition affecting fewer than 200,000 patients in the U.S. The designation provides the drug developer with a seven-year period of U.S. marketing exclusivity if the drug is the first of its type approved for the specified indication or if it demonstrates superior safety, efficacy or a major contribution to patient care versus another drug of its type previously granted the designation for the same indication.

On December 2, 2009, we announced that the FDA had granted Fast Track designation for perifosine for the treatment of relapsed/refractory multiple myeloma. The Fast Track program of the FDA is designed to facilitate the development and expedite the review of new drugs that are intended to treat serious or life-threatening conditions and that demonstrate the potential to address unmet medical needs. Fast Track designated drugs ordinarily qualify for priority review, thereby expediting the FDA review process.

In March 2010, we announced that we had received a positive opinion for orphan medicinal product designation for perifosine from the Committee for Orphan Medicinal Products of the European Medicines Agency, for the treatment of multiple myeloma. Orphan medicinal product designation is granted by the European Commission, following a positive opinion from the COMP, to a medicinal product that is intended for the diagnosis, prevention or treatment of a life-threatening or a chronically debilitating condition affecting not more than five in 10,000 persons in the European Community when the application for designation is submitted.

Orphan medicinal product designation provides the sponsor with access to the Centralized Procedure for the application for marketing authorization, protocol assistance, up to a 100% reduction in fees related to a marketing authorization application, pre-authorization inspection and post-authorization activities, and could provide ten years of market exclusivity in EU, once approved for the treatment of multiple myeloma.

Competitors for Perifosine in Multiple Myeloma Indication

Products on the market:

Major products available on the market for the treatment of multiple myeloma are the following:

Velcade® (bortezomib manufactured by Millenium: The Takeda Oncology Company), a proteasome inhibitor approved in combination with melphalan (Alkeran® - manufactured by Celgene) and prednisone as a 1st-line treatment and as a monotherapy for 2nd-line treatment in both U.S. and E.U. Millennium reported more than $1 billion in global Velcade® sales in 2008. [Velcade® is co-developed by Millennium Pharmaceuticals, Inc. and Johnson & Johnson Pharmaceutical Research & Development, L.L.C. Millennium is responsible for commercialization of VELCADE in the U.S., Janssen-Cilag is responsible for commercialization in Europe and the rest of the world. Janssen Pharmaceutical K.K. is responsible for commercialization in Japan.]

Caelyx®/Doxil® (pegylated liposomal doxorubicin manufactured by Schering Plough), a topoisomerase II inhibitor and DNA intercalating agent, is approved as a 2nd-line treatment in combination with Velcade® in patients with advanced multiple myeloma.

Table of Contents

Thalomid® (thalidomide manufactured by Celgene), an antiangiogenic compound has been approved by the FDA for use in combination with dexamethasone for the treatment of patients with newly diagnosed multiple myeloma. The Australian Therapeutic Goods Administration, or TGA, approved a supplemental filing granting Thalomid® marketing approval for use in combination with melphalan and prednisone for patients with untreated multiple myeloma or ineligible for high-dose chemotherapy, and also granted Thalomid® marketing approval in combination with dexamethasone for induction therapy prior to high-dose chemotherapy with autologous stem cell rescue, for the treatment of patients with untreated multiple myeloma. In addition, Thalomid® was granted full marketing authorization by the European Commission, or EC, for use in combination with melphalan and prednisone as a treatment for patients with newly diagnosed multiple myeloma. Internationally, Thalomid® is also distributed under mandatory risk-management distribution programs tailored to meet local competent authorities specifications to help ensure the safe and appropriate distribution and use of Thalomid®. According to Celgene s 2009 Annual Report, Thalomid® sales were down 13.4% to approximately $436.9 million in 2009.

Revlimid® (lenalidomide manufactured by Celgene): Revlimid® is an oral immunomodulatory drug approved by the FDA and a number of other regulatory agencies in Europe, Latin America, Middle East and Asia/Pacific for treatment in combination with dexamethasone for multiple myeloma patients who have received at least one prior therapy and in Australia and New Zealand in combination with dexamethasone for the treatment of patients whose disease has progressed after one therapy. Revlimid® is distributed internationally under mandatory risk-management distribution programs tailored to meet local competent authorities specifications to help ensure the safe and appropriate distribution and use of Revlimid®. Revlimid® continues to be evaluated in numerous clinical trials worldwide either alone or in combination with one or more other therapies in the treatment of a broad range of hematological malignancies, including multiple myeloma, MDS, non-Hodgkin s lymphoma, or NHL, chronic lymphocytic leukemia, or CLL, other cancers and other diseases. According to Celgene s 2009 Annual Report, Revlimid® sales were up 28.8% to approximately $1.7 billion in 2009.

Products in Phase 3 development:

Panobinostat (LBH5893) Novartis: Panobinostat is a highly potent pan-deacetlyase inhibitor (pan-DACi) developed by Novartis. Panobistat s mechanism of action involves disrupting aggresome function, promoting accumulation of cytotoxic misfolded protein aggregates and triggering of myloma cell death. Combination of pan-DAC and protease inhibition by co-treatment with panobinostat and bortezomib as demonstreated synergistic cytotoxicity *in vitro* and *in vivo* in preclinical experiments. Clinical experience in advanced multiple myeloma patients treated by oral panobinostat and i.v. bortezomib +/- dexamethasone showed efficacy and manageable toxicity profile. Panobinostat is currently in Phase 3 trial in patients with relapsed multiple myeloma in combination with Bortezomib.

Idamycin (Idarubicin) Pfizer: Idarubicin is an oral anthracyclines and an analogue of daunorubicin (but 5 to 6 times more potent than daunorubicin) developed by Pfizer. The mechanism of action of anthracyclines is poorly understood and cytotoxicity is generally attributed to intercalation of the drug into DNA and inhibition of DNA topoisomerase II activity resulting in double and single strand DNA breaks. Idarubicin is already approved in Canada for Acute lymphocytic leukemia in adults and children as a second-line treatment and in Acute non-lyphocytic leukemia in adults as a front-line treatment or for refractory/relapsed disease. Idarubicin is currently in Phase 3 clinical trial for patients with Stage I or Stage II multiple myeloma in combination with dexamethasone.

Zolinza (vorinostat MK0683) Merck: Zolanza is an oral histone deacetylase (HDAC) inhibitor developed by Merck. Zolinza works by inhibiting the enzymatic activity of HDAC1, HDAC2, HDAC3 (Class 1) and HDAC6 (Class II). Inhibition of HDAC may result in anti-cancer effects since HDAC inhibitors, like zolinza, have the ability to induce antiproliferative effects including cyto-differentiation, cell cycle growth arrest or apoptosis in various cancer cell lines. The exact mechanism of the anticancer effect of Zolinza has not been fully characterized. Phase 1 results showed early anti-tumor activity in patients with releaspsed and/or refractory multiple myeloma when zolenza was administered in combination with bortezomib, including in patients previously treated with and no longer responding to bortezomib. A Phase 3 randomized, double-blind, placebo-controlled trial of zolinza in combination with bortezomib in patients with relapsed and/or refractory multiple myeloma is

currently enrolling patinents. Pulmonary embolism and deep vein thrombosis have been reported as adverse reactions following treatment with zolenza.

Carfilzomib Onyx PharmaceuticalsCarfilzomib is the first in a new class of selective, irreversible proteasome inhibitors being developed by Proteolix (now part of Onyx Pharmaceuticals) for the treatment of hematologic malignancies and solid tumors. Carfilzomib produces specific and sustained inhibition of the proteasome, leading to apoptosis in cancer cells with minimal off-target effects. In Phase 1 and Phase 2 clinical trials, carfilzomib has demonstrated single-agent activity in hematologic malignancies and solid tumors, including multiple myeloma, Waldenstrom s macroglobulinemia, mantle cell lymphoma and renal cell carcinoma. Carfilzomib was generally well tolerated and toxicities were manageable. A Phase 3 international randomized trial evaluating the efficacy of carfilzomib in combination with lenalidomide and dexamethasone

Table of Contents

versus lenalidomide and dexamethasone as a potential treatment option for patients with relapsed multiple myeloma is expected to begin in April 2010. Orphan Drug designation was granted by EMA in June 2008 for the treatment of multiple myeloma.

Multiple myeloma is the second most-common hematologic cancer, representing 1% of all cancer diagnoses and 2% of all cancer deaths.

According to the International Myeloma Foundation, more than 85,000 men and women in Europe underwent treatment for multiple myeloma in 2007 and 25,000 people were expected to die from multiple myeloma in 2007. According to the American Cancer Society, an estimated 20,580 new cases of multiple myeloma were diagnosed in the United States and 10,500 people were expected to die from multiple myeloma in the United States in 2009.

Perifosine Colon Cancer

In June 2009, our partner Keryx presented results of a randomized Phase 2 study of perifosine in combination with capecitabine versus capecitabine alone in patients with second- or third-line metastatic colon cancer.

This randomized, double-blind, placebo-controlled study was conducted at 11 centers across the United States. Patients with 2nd or 3rd line metastatic colon cancer were randomized to receive capecitabine (Xeloda®), an approved drug for metastatic colon cancer, at a dose of 825 mg/m2 BID (total daily dose of 1650 mg/m2) on days 1 - 14 every 21 days, plus either perifosine or placebo at 50 mg daily. Treatment was continued until progression. The study enrolled a total of 38 patients, 34 of which were third-line or greater. Of the 38 patients enrolled, 35 were evaluable for response (20 patients on the capecitabine + perifosine arm and 15 patients on the capecitabine + placebo arm). The three patients not evaluable for response were all in the capecitabine + placebo arm; 2 patients were inevaluable due to toxicity (days 14, 46) and 1 patient was inevaluable due to a new malignancy on day 6. All patients in the perifosine + capecitabine arm were evaluable for response.

The patients in the study were heavily pre-treated, with the arms well-balanced in terms of prior treatment regimens. The median number of prior treatment regimens for all 38 patients was two, with prior treatment regimens as follows: 91% of the patients received prior FOLFIRI (Irinotecan + 5FU + Leucovorin); 74% prior FOLFOX (Oxaliplatin + 5FU + Leucovorin); 63% were previously treated with both FOLFIRI and FOLFOX; 77% received prior Avastin; and 43% prior Erbitux®. Prior treatment with single agent capecitabine was excluded.

The primary endpoints of this study were to measure 1) Time to Progression (TTP); 2) Overall Response Rate (ORR), defined as the percentage of patients achieving a Complete Response (CR) or Partial Response (PR) by RECIST, and 3) Clinical Benefit Rate (CBR) defined as the percentage of patients on treatment for greater than three months with at least stable disease. Safety of perifosine + capecitabine vs. capecitabine + placebo in this patient population was evaluated as a secondary endpoint. Perifosine in combination with capecitabine was well tolerated with hand/foot syndrome (14%) and anemia (11%) as the highest reported grade 3/4 adverse events.

Best response and median time to progression of capecitabine + perifosine vs. capecitabine + placebo were as follows:

Group	N	CR N(%)	PR N(%)	ORR N(%)	SD > 12 wks N(%)	CBR N(%)	Median TTP (wks)
Capecitabine + Perifosine	20	1 (5%)	3 (15%)	4 (20%)	11 (55%)	15 (75%)	28.9 weeks {95% CI (13, 48.1)}
Capecitabine + Placebo	15	0	1 (7%)	1 (7%)	5 (33%)	6 (40%)	11 weeks {95% CI (9, 15.9)}

Perifosine + capecitabine more than doubled time to progression vs. capecitabine + placebo with a statistically significant p-value = 0.0006. In addition, perifosine + capecitabine more than doubled the ORR and almost doubled the Clinical Benefit Rate vs. capecitabine + placebo.

Table of Contents

Although not a primary endpoint in the study, overall survival was analyzed with results as follows:

Group	Median Overall Survival*(months)	% change
Capecitabine + Perifosine	22 {95% CI (12.1, NR)}	26% Increase**
Capecitabine + Placebo	16.3 {95% CI (5.3, 17.1)}	

---

* Survival calculated from date of randomization until date of death from any cause, whether or not additional therapies were received after removal from treatment.

** As of May 2009, median overall survival in the perifosine + capecitabine patient group is ongoing with 10 of the 20 patients in this arm still alive.

Updated results of this Phase 2 study were presented in January 2010 by our partner Keryx during the ASCO Gastrointestinal Cancers symposium. The primary endpoint of this study was to measure TTP. ORR, defined as CR+PR by RECIST, and overall survival (OS) was measured as a secondary endpoint. Updated results demonstrated a statistically significant advantage in the combination arm of perifosine + capecitabine for TTP and OS, as well as for the percentage of patients achieving Stable Disease (SD) lasting 12 or more weeks or better, as compared to the capecitabine arm. The perifosine + capecitabine arm demonstrated a greater than 60% improvement in OS, a more than doubling of median TTP, and almost a doubling of the percentage of patients achieving SD or better. In addition, the ORR was 20% (including one CR, and durable responses) in the perifosine + capecitabine arm vs 7% in the capecitabine arm. The updated efficacy results for all evaluable patients are as follows:

Group	N	ORR % CR / PR (Duration of Response)	> SD (min 12 wks) N (%) p=0.036	Median TTP Weeks p=0.0012	Median OS* Months p=0.0136
Perifosine + Capecitabine	20	20% 1 CR (34 mos - ongoing) 3 PR (21, 19, 11 mos)	15 (75%)	28 [95% CI (12-48)]	18 [95% CI (10.8-25.7)]
Capecitabine	15	7% 1 PR (7 mos)	6 (40%)	11 [95% CI (9-15.9)]	11 [95% CI (5.3-16.9)]

Of notable interest, and for the first time presented, were data showing a highly statistically significant benefit in median OS (more than doubling) and TTP for the subset of patients who were refractory to a 5-FU (Fluorouracil) chemotherapy-based treatment regimen. 5-FU is a core component of the standard of care FOLFIRI and FOLFOX regimens, and capecitabine is a 5-FU pro-drug. These results are shown below:

Group	5-FU Ref N (%)	> SD (min 12 wks) N (%) p=0.066	Median TTP Weeks p=0.0004	Median OS Months p=0.0088
Perifosine + Capecitabine	14 (70%)	1 PR / 8 SD (64%)	18 [95% CI (12-36)]	15.3 [95% CI (8.4-26)]
Capecitabine	11 (73%)	0 PR / 3 SD (27%)	10 [95% CI (6.6-11)]	6.8 [95% CI (4.8-11.7)]

All 38 patients were evaluable for safety. The perifosine + capecitabine combination was well-tolerated with Grade 3 and Grade 4 adverse events of > 10% incidence for perifosine + capecitabine arm versus capecitabine arm as follows: anemia (15% vs. 0%), fatigue (0% vs. 11%), abdominal pain (5% vs. 11%) and hand-foot syndrome (30% vs. 0%). Of note, incidence of Grade 1 and Grade 2 hand-foot syndrome was similar in both the perifosine + capecitabine and capecitabine arms (25% vs. 22%, respectively). Hand-foot syndrome is a reported adverse event with capecitabine monotherapy. Patients who remained on treatment longer in the Phase 2 study had a greater chance to develop hand-foot syndrome as illustrated by a median time to onset of Grade 3 and Grade 4 hand-foot syndrome in the perifosine + capecitabine arm of 19 weeks.

On February 3, 2010, our partner Keryx announced that it had reached an agreement with the FDA regarding a SPA on the design of a Phase 3 trial for perifosine in patients with refractory metastatic colorectal cancer. The Phase 3 X-PECT (Xeloda® + Perifosine Evaluation in Colorectal cancer Treatment) trial will be a randomized (1:1), double-blind trial comparing the efficacy and safety of perifosine + capecitabine (Xeloda®) vs. placebo + capecitabine in approximately 430 patients with refractory metastatic colorectal cancer. Patients must have failed available therapy including 5-fluorouracil, oxaliplatin (Eloxatin®), irinotecan, bevacizumab (Avastin®) and, if K-Ras wild-type, failed therapy with prior cetuximab (Erbitux®) or panitumumab (Vectibix®). For oxaliplatin-based therapy, failure of therapy will also include patients who discontinued due to toxicity. The primary endpoint is overall survival, with secondary endpoints including overall response rate (complete

Table of Contents

responses + partial responses), progression-free survival and safety. Approximately 40 to 50 U.S. sites will participate in the study. The study is expected to begin in 2Q 2010, and enrollment is expected to take approximately 12 months, with study completion expected in 2H 2011. Dr. Johanna Bendell, Director of GI Oncology Research for the Sarah Cannon Research Institute, Nashville, Tennessee, will lead the Phase 3 investigational team.

Competitors for Perifosine in colon cancer indication:

Products on the market:

Standard 1st-line therapies for treatment of colon cancer are usually the FOLFOX (5-fluorouracil; leucovorin; oxaliplatin) or the FOLFIRI (5-fluorouracil; leucovorin; irinotecan) combination.

The current therapies also include:

Xeloda® (Capecitabine manufacture by Roche) is an oral fluoropyrimidine which generates fluorouracil preferentially in tumor tissues by enzymatic cascade and is used in 1st or 2nd-line setting for treatment of metastatic colorectal or colon cancer in monotherapy and also in combination with any chemotherapy in all lines with or without Avastin. According to Roche s 2009 Annual Report, sales of Xeloda for colorectal, stomach and breast cancer increased 7% to 1.3 billion Swiss francs in 2009.

Avastin® (Bevacizumab, a humanized monoclonal antibody targeting vascular endothelial growth factor manufactured by Genentech/Roche) is also used in 1st or 2nd line treatment of metastatic colorectal cancer combined with available Standard therapy FOLFOX. According to Roche s 2009 Annual Report, sales of Avastin® for advanced colorectal, breast, lung and kidney cancer, and for relapsed glioblastoma (a type of brain tumour), rose 21% to 6.2 billion Swiss francs in 2009.

Erbitux® (Cetuximab) is a chimeric monoclonal antibody that specifically blocks the epidermal growth factor receptor (EGFR). Cetuximab is indicated for the treatment of patients with EGFR-expressing, KRAS wild-type metastatic colorectal cancer in combination with Standard chemotherapy FOLFIRI, and in patients who have failed oxaliplatin- and irinotecan-based therapy. Erbitux® is manufactured and distributed in North America by ImClone and Bristol-Myers Squibb, while in the rest of the world distribution is by Merck KGaA.

Vectibix® (Panitumumab) is a recombinant, human IgG2 kappa monoclonal antibody manufactured by Amgen that binds specifically to the human epidermal growth factor receptor (EGFR). Vectibix® is indicated as a single agent for the treatment of EGFR-expressing, metastatic colorectal carcinoma with disease progression on or following fluoropyrimidine-, oxaliplatin-, and irinotecan-containing chemotherapy regimens. There are 2 boxed warnings for Vectibix®: dermatologic toxicity and infusion reactions.

Product in Phase 3 development:

Aflibercept Sanofi + Regeneron: Aflibercept is an anti-angiogenesis inhibitor with a unique mechanism of action being developed by Sanofi and Regeneron. This fusion protein binds all forms of Vascular Endothelial Growth Factor-A (VEGF-A), as well as VEGF-B and placental growth factor (PIGF), additional angiogenic growth factors that appear to play a role in tumor angiogenesis and inflammation. Aflibercept has been shown to bind VEGF-A, VEGF-B, and PlGF with higher affinity than their natural receptors. Three Phase 3 studies are actually ongoing, each of which is currently over 70 percent enrolled:

- VELOUR study: 2nd-line metastatic colorectal cancer in combination with fluorouracil, leucovorin, and irinotecan (FOLFIRI);
- VITAL study: 2nd-line non-small cell lung cancer in combination with docetaxel;
- VENICE study: 1st-line hormone-refractory metastatic prostate cancer in combination with docetaxel and prednisone.

Aptocine Light Sciences Oncology: Aptocine is a water-soluble drug targeted by a single-use, disposable drug activator included with the drug. Aptocine has three mechanisms of action: direct tumor cytotoxicity, apoptosis caused by vascular shutdown and potential anti-tumor immune stimulation. Enrollment of a Phase 3 trial for aptocine in metastatic colorectal cancer is nearly completed. This Phase 3 trial is a 450-patient trial, conducted primarily at sites in Europe and India, to assess the progression-free survival and overall survival of patients treated with Aptocine plus chemotherapy versus chemotherapy alone.

Table of Contents

Brivanib Bristol-Myers Squibb: Brivanib, developed by Bristol-Myers Squibb, is an oral prodrug of BMS-540215, a dual tyrosine kinase inhibitor of VEGFR and FGFR signaling. Brivanib strongly binds to and inhibits VEGFR2, a tyrosine kinase receptor expressed almost exclusively on vascular endothelial cells. The inhibition of VEGFR2 may result in inhibition of tumor angiogenesis, inhibition of tumor cell growth, and tumor regression. Brivanib is currently in Phase 3 randomized trial investigating Brivanib Alaninate in combination with cetuximab (Erbitux®) vs. placebo in combination with cetuximab (Erbitux®) in patients with K-RAS tumors previously treated with combination chemotherapy for metastatic colorectal carcinoma. It is not yet known whether giving brivanib together with cetuximab is more effective than cetuximab alone in treating patients with metastatic colorectal cancer.

OncoVax Vaccinogen: OncoVax is an autologous tumour cell vaccine and prepared for each patient using the patient s own surgically removed tumor. The active specific immunotherapy falls within the classification of Advanced Therapeutic Medicinal Product (ATMP). The patient received the first of four vaccinations several weeks after surgery. The vaccine consists of a portion of the tumor cells that has been thawed and combined with a proprietary formulation of BCG that serves as an immunogenic enhancer. This formulation is also used for the 2nd inoculation. The 3rd and the final booster incolucations are prepared the same way but without the addition of BCG. Phase 3a results demonstrated efficacy of Oncovax® in Stage II colon cancer patients with a statistical significant increased 5-year overall survival rate and increased recurrence-free survival by log-rank analysis. OncoVAX® currently has a marketing authorization from Swissmedic, Switzerland s medical authority, in the category of procedes therapeutiques . A pre-submission meeting to request Scientific Advice from the EMA for submission of a Conditional Marketing Autorization was done in December 2009.

According to the American Cancer Society, colorectal cancer is the third most common form of cancer diagnosed in the United States. It is estimated that over 146,000 people were diagnosed with some form of colorectal cancer with over 49,000 patients dying from colorectal cancer in 2009. Surgery is often the main treatment for early stage colorectal cancer. When colorectal cancer metastasizes (spreads to other parts of the body such as the liver), chemotherapy is commonly used. Treatment of patients with recurrent or advanced colorectal cancer depends on the location of the disease. Chemotherapy regimens (i.e. FOLFOX or FOLFIRI either with or without bevacizumab) have been shown to increase survival rates in patients with metastatic/advanced colorectal cancer. Currently, there are seven approved drugs for patients with metastatic colorectal cancer: 5-fluorouracil (5-FU), capecitabine (Xeloda®), irinotecan (Camptosar®), oxaliplatin (Eloxatin®), bevacizumab (Avastin®), cetuximab (Erbitux®), and panitumumab (Vectibix®). Depending on the stage of the cancer, two or more of these types of treatment may be combined at the same time or used after one another. For example, FOLFOX combines 5-FU, leucovorin and oxaliplatin, and FOLFIRI combines 5-FU, leucovorin and irinotecan. Bevacizumab, a VEGF monoclonal antibody, is commonly administered with chemotherapy. Typically, patients who fail 5-FU, oxaliplatin, irinotecan, and bevacizumab-containing therapies, and who have wild-type KRAS status receive EGFR monoclonal antibody therapy with either cetuximab or panitumumab. Once patients progress on these agents, there are no further standard treatment options.

Perifosine Waldenstrom s Macroglubulinemia

Results of a Phase 2 study on perifosine in patients with Waldenstrom s Macroglubulinemia (WM) were presented by Keryx in June 2008 at ASCO and in December 2008 during the ASH meeting. Perifosine showed clinical activity as a single agent in patients with relapsed/refractory WM, with an ORR (partial response [PR] + minimal response [MR]) of 36%. PR occurred in 2 patients (6%), with a median duration of response of 9+ and 18+ months, MR occurred in 11 patients (30%), with a median duration of response of 7 months (2-21+ months). Stable disease [SD] occurred in 21 patients (58%) and progressive disease [PD] in 2 patients (6%) at 2 and 4 months. The most common adverse events were GI toxicities (nausea, vomiting and diarrhea) with grade 1 and 2 in 36% of the patients. Grade 3 and 4 events included anemia (9%) and leucopenia (9%). Grade 3 arthritis occurred in 9% of the patients; was considered likely related to therapy, (especially in rapidly responding patients), and reversed with symptomatic treatment as well as dose reduction. Dose reductions to 100 mg occurred in a total of 36% of the patients and were otherwise due to GI toxicity or cytopenias. Perifosine monotherapy induces a prolonged time to progression in relapsed or refractory WM, with a promising response rate of 36%, stabilization of disease in 58% of patients, and manageable toxicity, as well as the convenience of oral administration. Future clinical trials in combination with rituximab are planned.

In January 2010, we announced that an article entitled *Clinical and Translational Studies of a Phase II Trial of the Novel Oral Akt Inhibitor Perifosine in Relapsed or Relapsed/Refractory Waldenstrom s Macroglobulinemia,* reporting Phase 2 data demonstrating the single agent activity of perifosine for the treatment of advanced Waldenstrom s Macroglobulinemia, appeared in the February 1, 2010 issue of the Journal of Clinical Cancer Research. Dr. Irene Ghobrial, Assistant Professor of Medicine, Bing Center for Waldenstrom s Macroglobulinemia at Dana-Farber Cancer Institute, led the Phase 2 study, in which 37 patients were treated with perifosine 150 mg daily for 6 cycles. In this study, 41% of the patients had 3 or more lines of prior therapy and 78% had 2 or more prior lines of therapy. Such prior therapies include nucleoside analogues,

Table of Contents

bortezomib, alkylating agents and rituximab, which are not approved for, but are often used in the treatment of Waldenstrom s. Stable or responding patients were allowed to continue therapy until progression. Of the 37 patients, 4 achieved a partial response (11%), 9 achieved a minimal response (24%), and 20 showed stable disease (54%). Overall, 89% (33/37) of patients treated with single agent perifosine were reported to have stable disease or better, while 11% (4 patients) demonstrated progression. The median progression-free survival in the study was 12.6 months (90% C.I. (10.2, 22.7)), with a median overall survival of 26 months (90% C.I. (26 upper limit not reached)). Perifosine was generally well tolerated with gastrointestinal symptoms and fatigue reported as the most common adverse events related to therapy.

Perifosine Renal Cell Carcinoma

In June 2006, we announced positive data of perifosine in patients with advanced renal cell carcinoma (RCC). Keryx disclosed results from an interim analysis performed at the end of the first year of accrual, from a Phase 2, multi-center trial of perifosine that included multiple types of tumor and the results of the RCC group met protocol requirements for expansion of this cohort. Of the 13 patients with RCC, seven were evaluable for response. Three of them (43%) had a partial response and an additional two patients (29%) achieved long-term stable disease. Two patients (29%) had progressive disease. Results of a Phase 1 multicenter trial of perifosine in combination with sorafenib or in combination with sunitinib for patients with advanced cancers including RCC were disclosed by Keryx in June 2007 during the ASCO meeting and in November 2007. The trial was designed to accrue 3-6 patients in each of four cohorts. Response by RECIST criteria was a secondary endpoint. Perifosine was escalated from 50 mg once per day to 50 mg three times per day; sorafenib dose was escalated from 400 mg once per day to 400 mg twice per day; and sunitinib dose was escalated from 25 mg to 50 mg once per day for 4 weeks of treatment out of 6. Dose limiting toxicity (DLT) was defined as grade (G) 3 non-hematologic or G4 hematologic toxicity. Maximal tolerated dose (MTD) was the dose below that at which 2 out of 6 patients experienced a DLT.

For the combination perifosine + sorafenib, 20 patients were enrolled (12 males / 8 females, median age 64 (range 44-87)) with a median number of 2 prior therapies (range 1-4). Three patients were inevaluable due to rapid disease progression. Diagnosis was as follows; RCC (11 pts), sarcoma (5), colorectal (2), hepatocellular (1) and neuroendocrine (1). 17 patients were evaluable for toxicity: no drug related Grade 4 adverse events (AE) were seen. Suspected DLT of hand-foot syndrome was seen in cohort 4 and additional patients were enrolled. There was no increase in hand-foot syndrome compared to sorafenib alone. Of interest, 6/9 evaluable RCC patients (67%) had stable disease (SD) >12 weeks (median 26 weeks, range 12-62+). One hepatocellular patient had SD for 36 weeks. The combination of perifosine + sorafenib was well tolerated with no increased hand-foot syndrome compared to sorafenib alone. Six out of 9 RCC patients (67%) achieved SD up to 62+ weeks. Future studies are currently in development.

For the combination perifosine + sunitinib, 14 patients (8 males / 6 females; media range 62 years old, range 28-81) were enrolled. Disease type was as follows: RCC (3), Sarcoma (3), Other (8). Six patients were evaluable for response. After 2 treatment cycles, one patient had a partial response (PR), 3 patients showed a SD and 2 patients had disease progression (PD). In the sub-group RCC, three out of three patients were evaluable for response: one patient had a PR, 1 patient showed a SD and 1 patient had a PD. Results indicated that patients to date have tolerated well the treatment combination of perifosine + sunitinib with no unexpected toxicities and clinical activity has been noted within the first 3 cohorts with 4 of 6 (67%) evaluable patients with advanced cancer achieving at least SD for more than 6 months.

Results from a Phase II trial of perifosine in patients with advanced RCC who have failed tyrosine kinase inhibitors (TKI) were also presented at the ASCO meeting in June 2009 by our partner Keryx. The goal of this multi-center Phase II trial was to determine the safety and efficacy of perifosine in patients with advanced RCC refractory to VEGFR TKI.

The study enrolled a total of 50 patients, of which 46 patients were evaluable for response. Evaluable patients were defined as those who had greater than 7 days of treatment. The primary endpoint of this study was clinical benefit, defined as response rate (RECIST), and progression-free survival (PFS) in RCC patients who failed a prior VEGF receptor inhibitor (sunitinib or sorafenib). Safety of perifosine in this patient population was evaluated as a secondary endpoint. The best response to single-agent perifosine was as follows:

Group	N	PR N (%)	SD > 12 wks N (%)	CBR* N (%)	Median PFS (SD or >)
All Pts	46	5 (11%)	16 (35%)	21 (46%)	33 weeks [95% CI (24, 60)]

* CBR: Clinical Benefit Rate defined as patients with Stable Disease or Partial Response

Table of Contents

The median PFS for all 46 patients was 12.5 weeks [95% CI (11.9, 19)]. The median overall survival has not been reached with 33 of 46 patients (72%) still alive.

Also of interest was the patient subgroup who had failed both a VEGF receptor inhibitor (sunitinib or sorafenib) and an mTOR inhibitor (either everolimus or temsirolimus). For this group, the best response and median PFS to single agent perifosine was as follows:

Group	N	PR N (%)	SD > 12 wks N (%)	CBR N (%)	Median PFS
VEGF + mTOR	16	1 (6%)	7 (44%)	8 (50%)	16 weeks [95% CI (11.7, 33.6)]

Three patients out of the group of patients previously treated with and failed both a VEGF and an mTOR inhibitor remain on active treatment, now out 5, 9 and 17 months.

Updated clinical results of this Phase II study of perifosine as a single-agent treatment for advanced metastatic RCC were presented in September 2009 by our partner Keryx at the 8th International Kidney Cancer Symposium. Those updated data included results from a subgroup of patients who failed both a VEGF receptor inhibitor (sunitinib or sorafenib) and an mTOR inhibitor (temsirolimus or everolimus). Evaluable patients (n=16) were defined as those who had greater than 7 days of treatment (2 additional patients withdrew consent within 7 days). Patients received 100 mg of perifosine daily until progression or unacceptable toxicity. The primary endpoint of this study was clinical benefit, defined as response rate (CR / PR by RECIST) or percent of patients progression-free for at least 3 months. Median progression-free survival (PFS) and overall survival were also analyzed for efficacy. Safety was a secondary endpoint. Perifosine was well-tolerated with the most common adverse events being gastrointestinal discomfort and fatigue. Best response to single agent perifosine was as follows:

N	PR N (%)	SD > 12 wks N (%)	PD < 12 wks N (%)	Median PFS	Overall Survival
16	1 (6%)	7 (44%)	8 (50%)	16 wks [95% CI (11.7, 28)]	Not Reached (14/16 alive)
	Median PFS for patients SD or >			33 wks [95% CI (19, NR)]	at 22+ months

Perifosine Sarcoma

In June 2007, our partner Keryx presented results of Phase 1 and 2 studies for the treatment of patients with advanced sarcoma at the ASCO meeting. The dose schedules in the Phase 1 trials were weekly 100-800mg or loading dose 300-1800mg on Day 1 followed by 50-150 mg daily for Days 2-21 every 28 days or loading dose 400-900 mg and daily 50-100 mg continuously. In the Phase 2 trial, doses were loading dose 900 mg on Day 1 and 150mg daily for days 2-21 every 28 days; loading dose 900 mg and 100 mg daily continuously; 50 mg daily continuously without a loading dose; and 900-1,500 mg weekly. 145 patients with sarcoma were entered into studies and were assessed for clinical benefit rate (CBR). Partial responses were seen, in one patient each, with chondrosarcoma, extra-skeletal myxoid chondrosarcoma, leiomyosarcoma and a desmoid tumor. At lower doses with 52 patients fully evaluable for CBR, the CBR was 52% with four partial responses and 23 stable diseases at $\geq$ 4 months. At higher doses with 30 patients fully evaluable for CBR, CBR was 53% with 16 stable diseases at $\geq$ 4 months. Toxicities were mainly gastrointestinal and/or fatigue. The percentage of patients with grade 0 nausea, vomiting, diarrhea and fatigue for lower dose perifosine (76 patients) was 46%, 49%, 38% and 55%, respectively, compared to 26%, 32%, 20%, and 58% for higher dose perifosine (69 patients). The proportion of patients with grade 2+ nausea, vomiting, diarrhea and fatigue was 20%, 13%, 15%, and 21% for lower dose perifosine and 49%, 35%, 42%, and 25% for higher dose perifosine.

In November 2007, Keryx announced positive preliminary Phase 2 data of perifosine in patients with chemo-insensitive sarcoma. Data demonstrated the tolerability and clinical activity of perifosine as a single agent with an overall clinical benefit of 40% (stable disease > 3 months) in patients with refractory rare sarcomas. Perifosine was well tolerated with the most common grade 1 & 2 adverse events reported as nausea, vomiting, diarrhea and fatigue.

Perifosine Gliomas

In November 2007, Keryx announced early results of a Phase 2 trial of perifosine as a single agent for the treatment of recurrent malignant gliomas (malignant glioblastoma and malignant anaplastic gliomas). Twenty-five patients with advanced malignant gliomas were treated with a loading dose of 600 mg (150 mg x4) followed by a 100 mg daily dose of perifosine.

Table of Contents

The median progression free survival and overall survival in the anaplastic glioma group was nine weeks (range 2-50 weeks) and 49 weeks, respectively. Toxicity was minimal with the following reported events: one grade 1 nausea, one grade 1 diarrhea, one grade 2 pain, and one grade 4 gout exacerbation. The study was designed to enroll at least 12 evaluable malignant glioblastoma patients and at least 10 evaluable malignant anaplastic gliomas patients. If at least one patient achieves six month progression free survival, the study would continue to enroll an additional subset of patients. Therefore, the malignant glioblastoma arm has been halted and the malignant anaplastic gliomas arm will continue to enroll.

Perifosine Other indications

On March 2, 2006, our North American partner, Keryx, announced the initiation of a corporate-sponsored Phase 2 trial, multi-cancer, clinical program to evaluate perifosine as a treatment for leukemia. Dr. Frank Giles, Professor, Department of Leukemia, at the MD Anderson Cancer Center in Houston, TX, is the principal investigator. This Phase 2 trial will assess the objective response rate and evaluate the pharmacokinetics and safety and tolerability of perifosine as a single agent in relapsed or refractory acute myeloid leukemia, acute lymphocytic leukemia, chronic lymphocytic leukemia, high-risk myelodysplastic syndrome and chronic myeloid leukemia in the blastic phase.

In November 2006, Keryx presented intermediary results of the Phase 2 study of imatinib plus perifosine in patients with imatinib-resistant gastrointestinal stromal tumor (GIST). The primary endpoint of this study is to evaluate the efficacy and toxicity of the combination imatinib and perifosine in patients with imatinib-resistant GIST. To date, 16 patients have been enrolled in the current study. Of the 12 patients with evaluable disease, there were two partial responses by Choi criteria (17% objective response rate (ORR)) and one partial response by RECIST criteria (8% objective response rate). Grade 3 and 4 adverse events were rare and included fatigue, myalgias, ocular toxicity and nausea/emesis. The early data from the current study suggest that the addition of perifosine to imatinib is well-tolerated and may have efficacy in the treatment of patients with imatinib-resistant GIST.

Updated results of this trial were presented in June 2009 by our partner Keryx, during the ASCO meeting. Patients with Kit (+) advanced GIST who have progressed on imatinib were eligible. Patients continued their current dose of imatinib and were randomized to one of two dosing schedules of perifosine (Arm A: 100 mg p.o. qd x 28 + imatinib or Arm B: 900 mg [300 mg p.o. tid] qweekly + qd imatinib). A Bayesian approach was utilized to assess a target response rate of 20% with an unacceptable toxicity rate of 15% or less. Response was measured every 8 weeks by RECIST and Choi criteria. The primary endpoint was to determine the efficacy of perifosine with imatinib in patients with advanced GIST who progressed while receiving imatinib. 41 patients were enrolled from August 2005 to July 2008. After 1 patient exclusion and 2 cross-overs, 22 patients were in Arm A and 18 patients in Arm B. Median age was 58 (range, 32-82), 51% were male, and median ECOG performance status was 1. The most common primary site of disease and metastasis was the stomach (29%) and liver (66%), respectively. KIT genotype was available for 22 patients (54%); 5(12%) WT, 13(32%) exon 11 mutations, and 4(10%) exon 9 mutations. The median number of cycles was 2 (range, 1-24). By Choi and RECIST, 30 patients (73%) and 36 patients (87%) were available for response, respectively. No complete response (CR) was identified but the partial response (PR) rate was 4/36 (11%) by Choi (4 PR, 9 stable disease (SD)) and 0/36 (0%) by RECIST (16 SD). 4/5 (80%) of patients with WT KIT appeared to benefit (Choi: 1 PR, 3 SD; RECIST: 4 SD). Median PFS and OS for 40 patients were 2.2 months and 18.3 months. No difference in PFS was noted for the 2 schedules. Toxicity was assessed in 39 patients; 46 grade 3 events and 4 grade 4 events (ALT elevation, blurred vision, fatigue, and mood alteration) were noted. The most common grade 3 event was fatigue (20%). Three patients (7%) were removed from the study for toxicity (Arm A:1 patient, Arm B:2 patients).

On July 14, 2009, our partner Keryx announced the initiation of a Phase 1 clinical study to evaluate perifosine as a single agent treatment for recurrent solid tumors in pediatric patients. This single-center open-label study, fully funded by an external grant provided by a private organization, will be conducted at Memorial Sloan-Kettering Cancer Center in New York City. Oren Becher, MD, Instructor, Department of Pediatrics, in coordination with Eric Holland, MD, PhD, Director of the Brain Tumor group at Memorial Sloan-Kettering Cancer Center, will act as the study s Principal Investigator. Perifosine is being evaluated as a single-agent in pediatric patients with any solid tumor that has failed

standard therapy. Patients up to 18 years of age with a performance status of greater than 40% are eligible for this study. The study has been designed as a dose escalation study to determine the maximum tolerated dose (MTD) of perifosine alone in recurrent/progressive pediatric tumors. A standard 3+3 dose escalation design will be employed with 3 to 6 patients at each dose level. All patients will receive perifosine at a loading dose on the first day, followed by a maintenance dose to start on day two until progression of disease. A minimum of 4 and a maximum of 24 patients will be required to complete the study.

On October 8, 2009, Keryx announced the initiation of a Phase 2 clinical study to evaluate perifosine as a single agent treatment for relapsed or refractory Chronic Lymphocytic Leukemia (CLL) and Small Lymphocytic Lymphoma (SLL). This externally funded Phase 2 study was designed by Daphne Friedman, MD, Instructor and Principal Investigator, in coordination with J. Brice Weinberg, Professor, and Mark Lanasa, Assistant Professor, Divisions of Medical Oncology and

Table of Contents

Hematology, Duke University Medical Center, and is open for enrollment at Duke University. The single-center, open-label, study entitled, Phase 2 Trial of Perifosine in Patients with Relapsed or Refractory Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma , will enroll approximately 30 patients. Perifosine will be given orally at a dose of 50 mg twice daily, for a total of six 28-day cycles. The patients will be formally restaged upon completion of the trial. Overall Response Rate is the primary endpoint with overall survival, progression-free survival and safety as secondary endpoints. Correlative studies will also be conducted and evaluated as a secondary endpoint.

Perifosine Radio-enhancer

A proof-of-concept Phase 1 study of perifosine in combination with radiotherapy conducted by the National Cancer Institute of the Netherlands was completed in 2004. Results from this trial were presented at ASCO 2004. A total of 21 radiotherapy-naïve patients, of whom 17 had advanced non-small cell lung cancer (NSCLC) and 14 had become refractory to prior chemotherapy, received oral perifosine doses ranging from 50 mg to 200 mg/day concurrently with standard doses of radiotherapy. The trial data demonstrated an acceptable safety and tolerability profile, with 150 mg/day established as the dose recommended for use in subsequent clinical trials. Also demonstrated was preliminary evidence of anti-tumor activity at all dosage levels, including complete or partial responses (complete disappearance and decreased tumor size, respectively), or stable disease, with a median follow-up for responders of eight months. Importantly, in the cohort of 10 patients who were treated with 150 mg/day, the established dose recommended for use in subsequent clinical trials, there were three complete responses, three partial responses and four patients with stable disease.

On September 22, 2005, we announced the initiation of a multi-center Phase 2 randomized, double-blind, placebo-controlled trial with perifosine in combination with radiotherapy for NSCLC. Patients received perifosine 150 mg daily for five to six weeks and are followed for at least 12 months. The primary endpoint of this trial is the extent and duration of local control, i.e., the absence of tumor recurrence or progression in the area that has been irradiated. The trial is being conducted in collaboration with the Netherlands Cancer Institute. The lead investigator is Marcel Verheij, M.D., Ph.D., of the Department of Radiation Oncology / Division of Cellular Biochemistry, at the Netherlands Cancer Institute in Amsterdam. We announced completion of recruitment of 160 patients with inoperable Stage III NSCLC on November 14, 2007.

We disclosed preliminary results for this European multi-center Phase 2 trial in NSCLC in June 2009. Starting one week before the onset of a 4-week course of radiotherapy (51 Gy in 17 fractions), 177 patients with non-metastatic but inoperable NSCLC, mainly Stage III, received a 5-week course of 150 mg perifosine daily or placebo. After end of radiotherapy, patients were followed up to determine the time to tumor recurrence or progression in the area that had been irradiated, the so called local control . The primary endpoint of this trial was the extent and duration of local control, specifically the proportion of patients with absence of recurrence or progression 12 months after the end of treatment. The study was planned under the basic assumption that radiotherapy alone would result in a 35% local control rate, one year after end of therapy in the placebo group. It was hypothesized that the addition of perifosine would sensitize tumor cells to the tumor-killing effect of the radiotherapy, leading to a 15% higher rate of local control. Secondary efficacy parameters included the times to loco-regional or distant/systemic failure, the tumor response rate, and overall survival. Safety investigations included the monitoring of clinical laboratory, electrocardiograms, lung function, and adverse events.

In all, 22 study sites in The Netherlands, Bulgaria, Romania, Macedonia, and Belarus participated in this trial. A total of 177 patients were randomized and treated, of whom only 26 reached the milestone of one year post-treatment follow-up without disease relapse or progression, 14 of 95 patients (14.7%) in the perifosine and 12 of 82 patients (14.6%) in the placebo control group. No difference between treatment groups could be shown for local, loco-regional and overall disease control. Also, the tumor response rate, as assessed after the end of the radiotherapy, was not different between the groups.

In contrast to the lack of an observed local effect, patients in the perifosine group, particularly the subgroup of patients who entered the study without prior chemotherapy, showed a trend towards longer survival than patients of the placebo control group despite the short duration of treatment (5-week course of 150 mg perifosine daily).

There were no safety signals that would lead to an amendment of the current safety data or risk benefit assessments of perifosine. The type and severity of side effects were in the expected range. Following these neutral results and an unchanged safety profile, we announced that we will concentrate our efforts for perifosine on the disease targets of both multiple myeloma and metastatic colon cancer.

Table of Contents

Partners for perifosine

A Cooperative Research and Development Agreement (CRADA) was put in place with the National Institute of Health/the National Cancer Institute in May 2000. A cooperation and license agreement was signed in September 2002 with Access Oncology, Inc. (AOI), for the use of perifosine as an anti-cancer agent covering the United States, Canada and Mexico. In January 2004, AOI was acquired by Keryx, which is pursuing the clinical development of perifosine under the same conditions as AOI. The agreement, in particular, provides us free access to all data from Keryx and its partner s studies, as well as milestone payments and scale-up royalties to be paid to us on future net sales of perifosine in the United States, Canada and Mexico. In April 2009 we entered into an agreement to out-license the rights of perifosine to Handok in South Korea. We own rest of the world rights to perifosine.

AEZS-127 erucylphosphocholine

On January 6, 2005, we announced the initiation of preclinical development of erucylphosphocholine (AEZS-127), an analog of perifosine which is suitable for i.v. administration. Like perifosine, AEZS-127 belongs to a new class of compounds based on alkylphosphocholines. AEZS-127 possesses distinctive reduced haemolytic activity thus allowing for i.v. injection.

On January 6, 2005, we also licensed to Keryx certain rights to develop and market AEZS-127 in North America, South Africa, Israel, Australia and New Zealand while keeping rights for the rest of the world. According to the agreement with Keryx, the preclinical development costs of AEZS-127 are shared between Keryx (50%) and us (50%). In Q4 2008, we repatriated all rights for AEZS-127 from Keryx.

In 2006, studies for acute toxicity and dose range finding of erucylphosphocholine were actively pursued. The 4-week toxicity studies in rats and dogs as well as the safety pharmacology package was completed in 2007. These preclinical data are a prerequisite for the performance of a Phase 1 clinical study.

Erk/PI3K inhibitors and dual kinase inhibitors

In addition to our activities with alkylphosphocholines, we are screening small molecules for activity as agonists and antagonists to lipid-protein signaling interactions, which are seen as new and potentially important therapeutic targets.

We are focusing our efforts on single and dual inhibitors of Ras-Raf-Mek-Erk and PI3K-Akt pathways. The Ras-Raf-Mek-Erk and the PI3K-Akt pathways are constitutively activated in many cancer types, and influence both tumor development and progression.

Both signaling pathways represent promising therapeutic targets for the treatment of tumors. We have now identified a new compound class with inhibitory activity against both the Erk and PI3K kinases. These small molecules inhibit the kinases at nanomolar concentrations in a

dose-dependent manner by competing directly at the ATP binding site. In a broad kinase panel, the molecules are very selective against other kinases. In cellular experiments the compounds inhibit the activation of downstream targets Akt and Rsk1, and can stop the proliferation of various human cancer cell lines. Moreover, a new generation of aniline-substituted pyridopyrazine-urea derivative shows highly selective PI3K inhibition. We are currently performing *in vivo* studies with front-runner compounds in four mouse xenograft models (HCT116, U87, A549 and PC3) as well as pharmacokinetic studies in rodents using an oral pre-formulation. On the basis of these studies, AEZS-126 was selected as a preclinical development candidate for *in vivo* pharmacology and pharmacokinetic studies.

AEZS-126

The first *in vitro* and *in vivo* data for AEZS-126 were presented in April 2009 at the AACR meeting. The first poster, entitled, AEZS-126, a new orally bioavailable PI3K inhibitor with antitumor effects , focuses on ADMET and safety profiling of the compound, as well as *in vivo* pharmacokinetic experiments and mouse xenograft antitumor studies. Results indicated that AEZS-126 was identified as a potent inhibitor of class I PI3Ks in biochemical and cellular assays and demonstrated favorable properties in early *in vitro* ADMET screening including microsomal stability, plasma stability and screening against a large safety profile composed of receptors, enzymes and cardiac ion-channels. During the course of *in vivo* pharmacokinetic experiments and mouse xenograft antitumor studies, the oral bioavailability in mice was determined to be about 60%, leading to micromolar plasma levels which are well above the nanomolar IC50 values in *vitro* studies. Significant antitumor activity was observed at 30mg/kg daily oral administration in Hct116 and A549 models. These data suggest that AEZS-126 is a promising compound for clinical intervention of the PI3K/Akt pathway in human tumors.

Table of Contents

The 2nd poster, entitled *In vitro* profiling of the potent and selective PI3K inhibitor, AEZS-126 , outlines the key *in vitro* characteristics of this compound that led to its selection for *in vivo* development. AEZS 126 inhibits PI3Ka with an IC50 value of 10nM and proved to be a potent inhibitor of Akt phosphorylation in cellular assays. Mode-of-action studies showed that AEZS-126 acts as an ATP competitive compound. The *in vitro* antiproliferative activity against different human tumor cell lines (MDA-MB 468, U87, Hct116, PC-3, A549 and others) was determined, with EC50 values in the nanomolar range.

Based on those results presenting a favorable *in vitro* pharmacologic profile for AEZS-126, further *in vivo* profiling experiment will be performed.

AEZS-129

On April 21, 2009, we presented two posters on AEZS-129, a promising compound for clinical intervention of the PI3K/ Akt pathway in human tumors, at the American Association for Cancer Research (AACR) Annual Meeting. *In vivo* and *in vitro* data showed significant antitumor activity and a favorable *in vitro* pharmacologic profile which could lead to further *in vivo* profiling.

TUMOR TARGETING CYTOTOXIC CONJUGATES AND CYTOTOXICS

Cytotoxic conjugates

In view of the non-specific toxicity of most chemotherapeutic agents against normal cells, targeting such drugs to cancerous tissue offers a potential benefit for patients with advanced or metastatic tumors. Targeted cytotoxic peptide conjugates are hybrid molecules composed of a cytotoxic moiety linked to a peptide carrier which binds to receptors on tumors. Cytotoxic conjugates are designed to achieve differential delivery, or targeting, of the cytotoxic agent to cancer vs. normal cells.

Our cytotoxic conjugates represent a novel oncological strategy to control and reduce toxicity and improve the effectiveness of cytotoxic drugs. The development strategy was to create targeted conjugates with high cytotoxic activity based on doxorubicin, an approved and commercialized product or 2-pyrrolino-doxorubicin which is 500 to 1,000 times more active than the parent compound. We are exploring several candidates in which doxorubicin or 2-pyrrolino-doxorubicin are coupled to the peptide carriers targeting LHRH (AEZS-108 & AN-207), somatostatin (AN-238 & AN-162) or bombesin (AN-215) receptors. These conjugates are less toxic and more effective *in vivo* than the respective radicals in inhibiting tumor growth in LHRH receptor positive models of human ovarian, mammary or prostatic cancer.

In AEZS-108, the most advanced of the cytotoxic conjugates, doxorubicin is chemically linked to an LHRH agonist, a modified natural hormone with affinity for the LHRH receptor. This design allows for the specific binding and selective uptake of the cytotoxic conjugate by LHRH receptor positive tumors. Potential benefits of this targeted approach include a more favorable safety profile with lower incidence and severity of side effects, as normal tissues are spared from toxic effects of doxorubicin. In addition, the targeted approach may enable treatment of LHRH receptor positive cancers that have become refractory to doxorubicin which has been administered in its non-targeted form.

Table of Contents

In preclinical studies conducted to date in several animal models of LHRH receptor positive human cancer cell lines, AEZS-108 anti-tumor activity and tolerability were shown to be superior to that of doxorubicin. As would be expected, AEZS-108 was not active or was significantly less active than doxorubicin in LHRH receptor negative cancer cell lines. On January 18, 2005, we announced the initiation of a company-sponsored Phase 1 dose-ranging study with the targeted anti-cancer agent AEZS-108.

In June 2006, we announced positive Phase 1 results for AEZS-108 in patients with gynaecological and breast cancers which showed that the compound has a good safety profile and no dose-limiting toxicities. Eight patients received AEZS-108 by i.v. infusion. Infusion was well tolerated at all dosages, without supportive treatment. Pharmacokinetic analyses showed dose-dependent plasma levels of AEZS-108 and only minor (10-20%) release of doxorubicin. Stabilization of disease was observed in one out of eight patients in the ongoing Phase 1 study.

On November 27, 2006, we disclosed additional positive Phase 1 results regarding AEZS-108 in patients with gynaecological and breast cancers. Further data showed the compound s good safety profile and established the maximum tolerated dose at 267 mg/m2, which is equimolar to a doxorubicin dose of 77 mg/m2. This dose will be the recommended dose for a Phase 2 trial. The Phase 1 open-label, multi-center, dose-escalation, safety and pharmacokinetic study conducted in Europe included 17 patients suffering from breast, endometrial and ovarian cancers with proven LHRH receptor status. Evidence of anti-tumor activity was found at 160 mg/m2 and 267 mg/m2 doses of AEZS-108, where 7 out of 13 patients showed signs of tumor response, including 3 patients with complete or partial responses. The Phase 2 trials will focus on advanced or recurrent ovarian and endometrial cancers, two forms of cancer where LHRH receptors are highly expressed. Recommended dose will be 267 mg/m2 given once every three weeks.

AEZS-108 Ovarian and Endometrium Cancer

In 2007, a Phase 2 open-label, non-comparative, multicenter two indication trial stratified with two stages Simon Design was prepared. The enrollment of 82 patients is planned for this trial with up to 41 patients with either a diagnosis of platinum-resistant ovarian cancer (stratum A) or disseminated endometrial cancer (stratum B). Under coordination by Prof. Günter Emons, MD, Chairman of the Department of Obstetrics & Gynaecology at the University of Göttingen, Germany, this open-label, multi-center and multi-national Phase 2 study AGO-GYN 5 is being conducted by the German AGO Study Group (Arbeitsgemeinschaft Gynäkologische Onkologie / Gynaecological Oncology Working Group), in cooperation with clinical sites in Europe. Patients with tumors expressing LHRH receptors administered will be an i.v. infusion of 267 mg/m2 of AEZS-108 over a period of 2 hours, every Day 1 of a 21-day (3-week) cycle. The proposed duration of the study treatment is 6, 3-week cycles. Study AGO GYN 5 will be performed with 14 centers of the German Gynaecological Oncology Working Group, in cooperation with 3 clinical sites in Europe. The primary efficacy endpoint at the end of stage 2 was defined as 5 or more patients with partial or complete tumor responses according to Response Evaluation Criteria in Solid Tumors (RECIST) and/or Gynaecologic Cancer Intergroup (GCIG) guidelines. Secondary endpoints include time to progression, survival, toxicity, as well as adverse effects. On February 12, 2008, we reported that the treatment of first patients had commenced in this Phase 2 trial. In October 2008, we announced that we have entered the second stage of patient recruitment for the Phase 2 trial in platinum-resistant ovarian cancer indication. This decision was taken following the report of two partial responses among patients with a diagnosis of platinum-resistant ovarian cancer. The second stage of patient recruitment for the endometrial cancer indication was reached in November 2008 and was based on the report of one complete response and two partial responses among 14 patients with a diagnosis of disseminated endometrial cancer.

In November 2009, we announced positive efficacy data from this Phase 2 study in patients with platinum-resistant and taxane-pretreated ovarian cancer. In a personalized healthcare approach, the study selected patients with tumors expressing LHRH receptors, the key element in the targeting mechanism of AEZS-108. All 43 patients with LHRH-receptor positive ovarian cancer who entered study AGO-GYN 5 have completed their study treatment. A preliminary evaluation shows that the study met its primary efficacy endpoint of 5 or more responders in 41 evaluable patients. Responders, as well as patients with stable disease after completion of treatment with AEZS-108, will now be followed to

assess the duration of progression-free survival and, ultimately, overall survival.

We announced positive efficacy data from the Phase 2 study with the targeted cytotoxic peptide conjugate, AEZS-108, in patients with advanced or recurrent endometrial cancer on November 24, 2009. A preliminary evaluation has shown that the study AGO-GYN 5 met its predefined primary efficacy endpoint of 5 or more responder patients with endometrial cancer. The study is currently ongoing, and responders, as well as patients with stable disease after completion of treatment with AEZS-108, will be followed to assess the duration of progression-free survival and, ultimately, overall survival.

Table of Contents

AEZS-108 Prostate Cancer

In May 2009, we announced that results supporting the evaluation of AEZS-108, in prostate cancer, will be presented as a poster at the ASCO 2009 meeting. Expression of LHRH receptors was determined using immunohistochemistry and the intensity was graded on a scale from zero to 3. The expression was analyzed in three cohorts of patients: (1) 47 men with localized prostate cancer treated with radical prostatectomy with no hormone therapy, (2) 61 men with localized prostate cancer treated with neoadjuvant LHRH agonists for varying duration prior to prostatectomy, and (3) 22 men with metastatic prostate cancer who received a palliative transurethral resection of the prostate after clinical progression. In the final cohort, 15 men were treated with castration and 7 were treated with LHRH agonists. 45 of 47 hormone naïve samples (95.7%) demonstrated LHRH receptor expression. Statistical analysis revealed a correlation between strong receptor expression and higher pathologic tumor stage as well as shorter overall survival. 60 of 61 samples treated with neoadjuvant LHRH agonist therapy (98.4%) demonstrated LHRH receptor expression. All 22 samples from patients with metastatic disease demonstrated LHRH receptor expression. The majority of these samples demonstrated moderate to strong intensity. LHRH receptors are expressed on prostate cancers cells of hormone naïve and castrated patients. The expression of these receptors appears to persist despite prolonged treatment with LHRH agonists. The new results show continued expression of LHRH receptors in prostate cancer specimens after prolonged use of LHRH agonists; these data provide further support to the investigation of the drug in hormone-refractory prostate cancer, a major genitourinary cancer indication in male patients.

AEZS-105 - Lobaplatin

Lobaplatin is a platinum derivative that has demonstrated lower toxicity in preclinical studies compared with cisplatinum, specifically renal toxicity, and incomplete cross-resistance with other platinum derivatives suggesting potential therapeutic use even in tumor indications not routinely treated with platinum derivatives.

Clinically, lobaplatin was well tolerated at recommended dosages. Treatment was not associated with typical side effects often seen with cisplatinum, such as nephrotoxocity (impairment of kidney function), otoxicity (loss of hearing capacity), and neurotoxicity (effects on sensory function). In addition, vomiting was less severe than published data from both cisplatinum and carboplatinum. Characteristic toxicity of lobaplatin is a short-lasting, spontaneously reversible drop in thrombocyte count (blood platelets).

In a Phase 2 study conducted in China that included 284 patients with a broad range of solid and non-solid tumors, safety and particularly good therapeutic efficacy were demonstrated in patients with breast cancer, small cell lung cancer (SCLC), and chronic myeloid leukemia (CML) (a cancer of the hematopoietic system). The primary endpoint in solid tumor patients was the remission rate according to WHO criteria, while response in CML was assessed according to the disease-specific criteria of Talpaz. The favorable results of this study were the basis for approval of lobaplatin by the Chinese health authorities for the treatment of inoperable, advanced breast cancer, SCLC and CML.

In December 2002, we signed a contract with Hainan Chang An Pharmaceuticals Ltd. for the marketing in China of lobaplatin. The contract includes the worldwide manufacturing rights of lobaplatin by Hainan Chang An Pharmaceuticals. The technology transfer agreement provided us with a first payment upon signature and a later manufacturing-related payment.

In 2007, lobaplatin was licensed to Atani for the territory of Japan. The license agreement was terminated in 2009.

TUBULIN INHIBITORS / VASCULAR TARGETING AGENTS

AEZS-112 - Development of a low molecular weight tubulin inhibitor with anti-angiogenic properties

Tubulin is a protein found in all cells that plays an important role during cell division, in that it helps to transmit genetic information to the daughter cells. Inhibition of this process leads to the death of the affected cell. The anti-tumor agent taxol and vincristine, which are widely used in cancer therapy, are based on this principle. Both compounds are expensive natural substances and cause severe side effects when used in humans.

We are currently identifying and developing novel tubulin inhibitors which, compared with currently used products, exhibit in animal models improved efficacy, have a more acceptable side effect profile, an incomplete or no cross-resistance and are administered orally.

Table of Contents

AEZS-112 is a drug development candidate with an excellent tolerability profile showing excellent *in vivo* activity in various tumor models including mammary, colon, melanoma and leukemia cancers after oral administration. This compound acts through three mechanisms of action. Strong anti-cancer activity is combined with pro-apoptotic and anti-angiogenic properties. AEZS-112 inhibits the polymerization of cancer tubulin rather than bovine brain tubulin, it destroys the mitotic spindle of the cancer cells and it inhibits topoisomerase II activity. AEZS-112 arrests the cancer cells in the G2M phase at a nanomolar concentration and induced apoptosis. AEZS-112 is not cross-resistant to cisplatin, vincristine and doxorubicine in cell lines resistant to these drugs. Given orally once weekly, AEZS-112 proved to be a potent inhibitor of *in vivo* tumor growth in melanoma, mammary, colon, lung, renal as well as in leukemia cancers at acceptable and very well tolerated doses. Furthermore AEZS-112 showed favorable safety and toxicity profiles. No findings with respect to cardiotoxicity and neurotoxicology parameters could be observed during the toxicological evaluation in mice, rats and dogs. With this profile of activity, AEZS-112 is a promising candidate for further clinical development.

On January 8, 2007, we announced the initiation of a Phase 1 trial for AEZS-112 in patients with solid tumors and lymphoma. This open-label, dose-escalation, multi-center, intermittent treatment Phase 1 trial is being conducted in the United States with Daniel D. Von Hoff, MD, Senior Investigator at the Translational Genomics Research Institute in Phoenix, AZ, as the lead investigator. The trial includes up to 50 patients with advanced solid tumors and lymphoma who have either failed standard therapy or for whom no standard therapy exists. Patients will receive a once-a-week oral administration of AEZS-112 for three consecutive weeks, followed by a one-week period without treatment. The cycles will be repeated every four weeks based on tolerability and response, basically planned for up to four cycles, but allowing for continuation in case of potential benefit for the patient. The starting dose of AEZS-112 in this study is 13 mg/week, with doubling of doses in subsequent cohorts in the absence of significant toxicity. Primary endpoint of the Phase 1 trial focuses on determining the safety and tolerability of AEZS-112 as well as establishing the recommended Phase 2 dose and regimen. Secondary endpoints are aimed at establishing the pharmacokinetics and determining the efficacy based on standard response criteria.

Results of this Phase I study were presented in April 2009 at the AACR meeting. In part I, 22 patients (12 men / 10 women) were studied on 7 dose levels ranging from 13 to 800 mg/week. In all, 62 treatment cycles were administered. In part II, the weekly dose was split into 3 doses taken 8 hours apart. Ultimately, 22 patients (12 men / 10 women) were studied on 5 dose levels ranging from 120 to 600 (=200x3) mg/week. As of April 1, 2009, 62 treatment cycles were administered (mean 3.2/patient); treatment was ongoing in 8 patients. Stable disease (SD) for more than 12 weeks was observed in 16 patients; 4 more patients were ongoing at less than 12 weeks. Prolonged courses of SD ranging from 20 to 39+ weeks were observed in 9 patients with the following primary cancer types: trachea (39+), tongue (30+), thyroid (29+), prostate and melanoma (28), non-small cell lung cancer (26+), pancreas and 2x colorectal (20). Except for one patient with a background of gastrointestinal problems (GI) who had dose-limiting GI reactions and electrolyte loss at a dose of 200x3mg/week, no clinically relevant drug-related adverse events or changes in laboratory parameters were observed. AEZS-112 was shown to be metabolically stable in human plasma. As predicted by pharmacokinetic modelling based on data from part I of the study, the split-dose scheme leads to a higher Cmax and trough values after administration of comparable doses. Those preliminary results showed that a maximum tolerated dose for weekly dosing has not been defined so far. However, prolonged courses of stable disease in both parts of the study are an encouraging observation.

Completion of this Phase 1 trial was announced on September 21, 2009. Stable disease with time to failure ranging from 20 to 60+ weeks was achieved in 12 patients with various cancer types, including melanoma and cancers of the colon/rectum, lung, pancreas, prostate, tongue, trachea and thyroid. In several of these patients, the duration of stabilization exceeded the duration of disease control on previous treatment regimens. Except for a dose-limiting gastrointestinal reaction in a patient with pre-existing GI problems, no clinically relevant drug-related adverse events or changes in laboratory safety parameters were observed.

IMMUNOTHERAPY / VACCINES

Cellular proteins expressed by oncogenes have been recognized as a major cause of tumor development. One of the central oncoproteins involved in cancer formation are the Raf proteins. Based on these proteins, new unique therapeutic strategies, new predictive animal models and new development products have been generated to efficiently combat cancer. These consist of virulence attenuated, genetically modified bacteria expressing tumor antigens, including oncoproteins or enzymes. Such bacteria are used for vaccination as well as tumor targeting and delivery of antitumoral compounds towards the tumor tissues. Therefore, this new vaccine approach exploits the ability of bacteria to induce potent immune responses as well as direct these responses against malignancies. The immunogenicity of the vaccine will be further enhanced by the capacity of bacteria to colonize tumor tissues. This property will be used to transport substances, e.g. proteins, into the tumor tissue, which are capable of converting non-toxic pro-drugs into active drugs. The use of bacterial carriers for therapeutic vaccination against tumors and the concept of bacterial tumor targeting will be further developed with the Julius-

Table of Contents

Maximilians-University of Würzburg, including the highly recognized researchers Prof. Dr. Ulf R. Rapp, who is a member of our Scientific Advisory Board, and Prof. Dr. Werner Goebel. Prof. Rapp is a known expert in the field of cell and tumor biology and Prof. Goebel is a pioneer in the field of vaccines based on recombinant bacteria.

The preclinical proof of principle has already been shown in a transgenic animal model and is supported by several patent applications that we have filed. The most advanced products are bacterial tumor vaccines which are based on the approved human vaccine strain *Salmonella typhi* Ty21a. The principle of these recombinant vaccine strains is the secretion of the tumor antigen using a so-called Type I secretion machinery derived from *Escherichia coli*. To date, two different vaccine strains have been generated up to GMP scale production a melanoma vaccine encompassing a mutated form of the oncogene B-Raf, which is present in more than 65% of melanomas, and a prostate cancer vaccine strain expressing and secreting PSA. For both vaccines, the preclinical proof of principle has been demonstrated in distinct animal models and the immunogenicity could be further enhanced compared to our already published strains (patent application filed in November 2006).

In 2007, the PSA vaccine (AEZS-120) was selected as the first preclinical development candidate of an anti-tumor vaccine. In September, scientific advice from the Paul Ehrlich Institute, the German health authority for vaccines, was sought and the preclinical development program presented by us was in principle accepted.

A grant application was filed in Germany and was approved in 2008. In accordance with this grant, 50% of our preclinical development costs and 100% of those of our university partner will be reimbursed by the German Ministry of Science and Education. The preclinical development and manufacture of material for clinical trial was initiated in 2008.

ENDOCRINOLOGY

Growth hormone secretagogue

Ghrelin ligand AEZS-130 (ghrelin agonist)

Growth hormone secretagogues (GHS) represent a new class of pharmacological agents that directly stimulate growth hormone (GH) secretion from the pituitary gland without the involvement of growth hormone-releasing hormone (GH-RH) or somatostatin. We believe that there is currently no GHS on the pharmaceutical market. Since GH is a potent regulator of lipid, sugar and protein metabolism, the potential clinical uses of GHS are numerous. They include growth retardation in children and treatment of cachexia in AIDS patients, which are currently the only approved uses of therapy of GH. The administration of GH, which has to be injected every day, is cumbersome. Therefore, we believe that there would be a demand for new orally active drugs like GHS.

As part of our university collaboration, we accessed new peptidomimetic compounds with GH secretagogue properties. The lead development candidate, AEZS-130, is a novel peptidomimetic GHS with potent and selective GH-releasing activity in humans. AEZS-130 underwent limited clinical pharmacology tests that demonstrated a potent stimulation of the GH secretion after oral administration in human volunteers. This product has been licensed to Ardana Bioscience Ltd. (Ardana) (ARD-07), which initiated an open, randomized, placebo-controlled Phase 1

dose-ranging study in April 2004. Thirty-six healthy subjects were included in this study to receive either the reference hormone GH RH by i.v. route or one of the following dose levels of AEZS-130: 0.005, 0.05 or 0.5 mg/kg by oral route. AEZS-130 at the dose of 0.5 mg/kg orally caused an increase in growth hormone release equivalent to that induced by GH RH i.v.. The compound was well tolerated and no other hormones showed a significant modification after any dose of AEZS-130.

In June 2006, Ardana presented results regarding AEZS-130 at the 2006 Endo Convention. These results referred to the Phase 1 trial regarding the stimulating effects of AEZS-130 on growth hormone following both oral and intra-duodenal administration in healthy males. This study showed that AEZS-130 was well tolerated by the 36 volunteers enrolled and no adverse events were reported. Administration of AEZS-130 either orally or via intra-duodenal infusion results in increased levels of growth hormone in the blood. This stimulation of growth hormone appears to be selective as no other hormones/analytes that were measured (cortisol, ghrelin, prolactin, insulin, glucose and ACTH (adrenocorticotropic hormone)) were affected in a dose-dependent or statistically significant way by administration of AEZS-130 either orally or via intra-duodenal infusion.

Table of Contents

In May 2007, Ardana gained orphan drug status for AEZS-130 (Solorel™) as a diagnostic for growth hormone deficiency in adults. The clinical development and toxicology programs for this indication are ongoing and Ardana announced the commencement in the United States of the planned pivotal registration study and the enrolment of the first patient in August 2007.

In June 2008, Ardana announced that the company stopped its operations and entered into voluntary administration. Consequently, the clinical study of AEZS-130 (Solorel™) as a diagnostic test for adult growth hormone deficiency (AGHD) was suspended.

We announced the recovery of worldwide rights from Ardana for the compound AEZS-130 in the third quarter of 2008. Future development options are currently being evaluated for the use of this compound in growth hormone deficiencies therapy. In June 2009, we reported that, after regaining from Ardana the worldwide rights to the growth hormone secretagogue, AEZS-130, we had entered into an agreement with the administrators of Ardana to acquire all Ardana assets relating to AEZS-130 for $232,000. These assets include development data, inventory of compound, regulatory authorizations, including IND and orphan drug status as a diagnostic test granted in the United States, as well as a patent application protecting the use of AEZS-130 (Solorel™) for the diagnostic of growth hormone secretion deficiency.

During the same month, the first clinical data relating to the use of AEZS-130 (Solorel™) as a simple diagnostic test for adult growth hormone deficiency were presented at the ENDO 2009 meeting by the main investigators Dr G. Merriam and Dr B.M.K. Biller. Data showed that in adult growth hormone deficient patients, the responses to the orally administered AEZS-130 (Solorel™) compound were comparable to currently validated agents and clearly separated patients from normal control subjects.

In October 2009, we announced that we have initiated activities intended to complete the clinical development of AEZS-130 (Solorel™) which could be the first oral diagnostic test approved for growth hormone deficiency (GHD). Æterna Zentaris has already assumed the sponsorship of the Investigational New Drug application (IND) and is discussing with the FDA the best way to complete the ongoing Phase 3 clinical trial, and subsequently file a New Drug Application for approval of AEZS-130 (Solorel™) as a diagnostic test for GHD in adults.

The pivotal Phase 3 trial (listed in clinicaltrials.gov, study # NCT00448747) is designed to investigate the safety and efficacy of the oral administration of AEZS-130 (Solorel™) as a growth hormone stimulation diagnostic test compared to GHRH + L-arginine, administered i.v. Currently available results from this study demonstrated no safety issues and better discrimination between adult GHD patients and normal controls with AEZS-130 (Solorel™) oral solution, compared to the currently used test with GHRH-Arginine i.v. administration.

Oral administration of AEZS-130 (Solorel™) offers more convenience and simplicity over the current GHD tests used, requiring either i.v. or i.m. administration. Additionally, AEZS-130 (Solorel™) may demonstrate a more favorable safety profile than existing diagnostic tests, some of which may be inappropriate for certain patient populations e.g. diabetes mellitus or renal failure, and have demonstrated a variety of side effects which AEZS-130 (Solorel™) has not thus far. These factors may be limiting the use of GHD testing and may enable AEZS-130 (Solorel™) to become the diagnostic test of choice for GHD. AEZS-130 (Solorel™) has been granted Orphan Drug Designation for the diagnosis of growth hormone deficiency by the FDA, and Æterna Zentaris is now the sponsor of this orphan designation.

Competition for AEZS-130

Competitors for AEZS-130 (Solorel™)

Competitors for AEZS-130 (Solorel™) as a diagnostic test for adult GHD are principally the diagnostic tests currently performed by endocrinologists. Most commonly used diagnostics tests for GHD are:

Measurement of blood levels of Insulin Growth Factor (IGF)-1, which is often used as the first test when GHD is suspected. However, this test is not used to definitively rule out GHD as many growth hormone deficient patient show normal IGF-1 levels.

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

Table of Contents

GHRH+Arginine test, which is an easier test to perform in an office setting and has a very good safety profile but is considered to be costly to administer compared to ITT and Glucagon. This test is contra-indicated in patients with renal failure. GHRH +Arginine is approved in the EU and has been proposed to be the best alternative to ITT, but it is not frequently used in the U.S. This test is administered i.v.

Glucagon test, which is simple to perform and is considered very safe by endocrinologists but is contraindicated in malnourished patients and patients who have not eaten for more than 48 hours. Since there is a suspicion that this test may cause hypoglycemia, it may not be appropriate in diabetic populations. This test is administered i.m.

Ghrelin receptor ligands

Ghrelin is a peptide predominantly produced by the stomach. Apart from a potent GH-releasing action, ghrelin has other activities including stimulation of lactotroph and corticotroph function, influence on the pituitary gonadal axis, stimulation of appetite, control of energy balance, influence on sleep and behavior, control of gastric motility and acid secretion, and influence on pancreatic exocrine and endocrine function as well as on glucose metabolism. The recent discovery of ghrelin and its receptors opens up new opportunities for the development of drugs that will treat metabolic disorders. There is indeed a possibility that ghrelin analogs, acting as either agonists or antagonists, might have a clinical impact without affecting GH level. The use of ghrelin antagonists as appetite suppressants or inhibitors of lipogenesis could open up new opportunities for the treatment of obesity and associated diseases (e.g. diabetes, cardiovascular diseases). The use of ghrelin agonists could have therapeutic benefits which are expected to offer hope for cachexic or anorexic patients.

In 2004, we established a research and license collaboration agreement with Le Centre National de la Recherche Scientifique and University Montpellier I and II, France, acting in their own names, as well as in the name and on behalf of the Laboratoire des Aminoacides, Peptides et Protéines (LAPP) (UMR 5810), directed by Dr. Jean Martinez, for the synthesis and characterization of new chemical entities acting as ghrelin receptor ligands. According to the agreement, we have the worldwide rights to develop and exploit the new compounds for any indication. Compounds with the most potent affinity for the ghrelin receptors will be investigated further through an international network of academic investigators with expertise in the field of endocrinology in order to identify clinical development candidates.

Additionally, we also established a research contract with the Department of Experimental and Environmental Medicine of the University of Milan, Italy, under the direction of Prof. Vittorio Locatelli, for the pharmacological characterization of potentially ghrelin receptor ligands.

In August 2005, we filed a first patent application to protect a series of new chemical entities characterized as ghrelin receptor ligands.

In May 2006, we established a research project agreement with the University of Montreal. This research project will focus on the characterization of ghrelin receptor ligands on fat tissue. This project is led by Huy Ong, Professor at the Faculty of Pharmacy, at the University of Montreal.

In August 2006, we also initiated a research collaboration with the Centre de recherche de l Hôpital Laval (Québec) under the direction of Dr. Denis Richard. This research collaboration will focus on the pharmacological characterization of ghrelin receptor ligands *in vivo* (e.g. the

effects in diet-induced obesity models).

In October 2006, we presented for the first time our *in vivo* data on the capacity of ghrelin antagonists of selectively inhibiting food intake. This study, using a rat model, outlined the capacity of ghrelin antagonists ability to inhibit appetite without affecting growth hormone secretion and represents evidence that ghrelin antagonist compounds can selectively inhibit food intake. It further supports the hope that ghrelin antagonist compounds have the potential to be useful for the treatment of obesity.

In 2007 and 2008, we presented at scientific meetings preclinical candidates having the interesting property to decrease body weight gain and fat accumulation in diet induced obesity models. The ongoing work will focus on the improvement of oral bioavailability.

In July 2009, new data supporting the use of AEZS-123 (JMV-2959), a ghrelin receptor antagonist, for the treatment of alcohol dependence that involved ghrelin were published. Data were published in the renowned American scientific journal, Proceedings of the National Academy of Sciences (PNAS). Data show that mice treated with ghrelin increase their alcohol consumption. When ghrelin s actions are blocked by administering ghrelin receptor antagonists such as AEZS-123, mice no longer show preference for an alcohol-associated environment - in other words, alcohol is no longer able to produce its

Table of Contents

addictive effects that include reward searching behaviour (akin to craving in alcoholic patients). The work, coordinated by Æterna Zentaris, emerged from an international collaboration between the research groups of Prof. Suzanne Dickson and Prof. Jörgen Engel who performed the pharmacology work at the Sahlgrenska Academy, Gothenburg, Sweden, and the research group of Prof. Jean Martinez who synthesized the tested compound AEZS-123 at the Institut des biomolécules Max Mousseron, Montpellier, France.

LHRH ANTAGONISTS

Cetrorelix

Cetrorelix is a peptide-based active substance which was developed in cooperation with Nobel Laureate Professor Andrew Schally presently of the United States Veterans Administration-Miami, University of Miami, and formerly of Tulane University in New Orleans. This compound is a luteinising hormone releasing hormone (LHRH, also known as GnRH) antagonist that blocks the pituitary LHRH receptors resulting in a rapid decrease of sexual hormone levels. Moreover, Cetrorelix allows the LHRH receptors on the pituitary gland to be blocked gradually. Conversely, the side effects usually associated with the use of agonists and resulting from total hormone withdrawal can be avoided in conditions that do not require a castrating degree of hormone withdrawal. Therefore, in contrast to treatment with agonists, LHRH antagonists permit dose-dependent hormone suppression which is of critical importance for the tolerability of hormonal therapy.

Cetrorelix in vitro fertilization (COS/ART)

Cetrotide®

Cetrorelix is the first LHRH antagonist which was approved for therapeutic use as part of fertilization programs in Europe and was launched on the market under the trade name Cetrotide® (cetrorelix acetate) in 1999. In women who undergo controlled ovarian stimulation for recovery of ovocytes for subsequent fertilization, Cetrotide® helps prevent premature ovulation. LHRH is a naturally occurring hormone produced by the brain to control the secretion of LH and, therefore, final egg maturation and ovulation. Cetrotide® is designed to prevent LH production by the pituitary gland and to delay the hormonal event, known as the LH surge which could cause eggs to be released too early in the cycle, thereby reducing the opportunity to retrieve the eggs for the assisted reproductive techniques procedure.

In comparison with LHRH agonists that require a much longer pre-treatment, the use of our LHRH antagonist, Cetrotide®, permits the physician to interfere in the hormone regulation of the women undergoing treatment much more selectively and within a shorter time.

The effectiveness of Cetrotide® has been examined in five clinical trials (two Phase 2 and three Phase 3 trials). Two dose regimens were investigated in these trials: either a single dose per treatment cycle or multiple dosing. In the Phase 2 studies, a single dose of 3 mg was established as the minimal effective dose for the inhibition of premature LH surges with a protection period of at least four days. When Cetrotide® is administered in a multi-dose regimen, 0.25 mg was established as the minimal effective dose. The extent and duration of LH suppression was found to be dose-dependent. In the Phase 3 program, efficacy of the single 3 mg dose regimen and the multiple 0.25 mg dose regimen was established separately in two controlled studies utilizing active comparators. A third non-comparative study evaluated only the

multiple 0.25 mg dose regimen of Cetrotide®. In the five Phase 2 and Phase 3 trials, 184 pregnancies were reported out of a total of 732 patients (including 21 pregnancies following the replacement of frozen-thawed embryos). In these studies, drug-related side effects were limited to a low incidence of injected site reactions; however, none of them was serious such as an allergic type of reaction or required withdrawal from treatment. In addition, no drug-related allergic reactions were reported from these clinical studies.

Cetrotide® is the only LHRH antagonist that is available in two dosing regimens. With an immediate onset of action, Cetrotide® permits precise control a single dose (3 mg), which controls the LH surge for up to four days, or a daily dose (0.25 mg) given over a short period of time (usually five to seven days). The treatment with Cetrotide® can be accomplished during a one-month cycle with a simplified, more convenient and shorter treatment requiring fewer injections than LHRH agonists.

Cetrotide® is marketed in a 3 mg and a 0.25 mg subcutaneous injection as Cetrorelix acetate by Merck Serono in the United States and Europe. Approval for Cetrotide® in Japan was gained in April 2006. In September 2006, we announced the launch of Cetrotide® in Japan for *in vitro* fertilization. Cetrotide® is marketed in Japan by our partner Shionogi. We receive revenue from the supply of Cetrotide® to our Japanese partners. The market competitor is ganirelix (Antagon /Orgalutran®) from

Table of Contents

Schering-Plough (Organon) indicated for the inhibition of premature LH surges in women undergoing controlled ovarian hyperstimulation.

Partners for Cetrotide®

In August 2000, we entered into a commercialization agreement with Merck Serono for Cetrotide®. Under the terms of this agreement, we granted an exclusive license to Merck Serono to commercialize Cetrotide® for IVF/COS/ART worldwide ex-Japan and we are entitled to receive fixed and sales royalties from Merck Serono. The Japanese rights for this indication are held by Shionogi whereby, according to a commercialization agreement, we received transfer pricing from Shionogi.

In December 2008, we sold our rights to royalties on future sales of Cetrotide® covered by our license agreement with Merck Serono for $52.5 million to Cowen Healthcare Royalty Partners (CHRP) less transaction costs of $1.0 million, resulting in initial net proceeds to us of $51.5 million. In addition, contingent on 2010 net sales of Cetrotide® reaching a specified level, we may receive an additional payment of $2.5 million from CHRP. Under the terms of the agreement, we agreed to make a one-time cash payment to CHRP in an amount ranging from $5 million up to a maximum of $15 million in the event Cetrorelix is approved for sale by the European regulatory authorities in an indication other than *in vitro* fertilization. The amount which would be due to CHRP will be higher the earlier the product receives European regulatory approval.

Clinical development overview of Cetrorelix in benign prostatic hyperplasia (BPH), endometriosis and uterine myoma

Cetrorelix in BPH

BPH is a hormone-driven enlargement of the male prostate gland. The prostate is located directly at the vesicle outlet in the male surrounding the first part of the urethra. The enlargement puts pressure on the urethra, causing difficulty in urinating. BPH is classified into three stages according to symptoms: 1) the irritant phase, where the patient suffers dysuria (pain when urinating) and nocturia (the urge to urinate during the night); 2) residual urine occurring in the bladder thus increasing problems during urinating; and 3) overflow of the bladder. These can result in formation of bladder stones, congestion of urine and engorged kidneys which can in turn lead to life-threatening kidney damage.

BPH clinical trials

On August 17, 2009, we reported Phase 3 results for our North American efficacy trial Z-033 (including certain sites in Europe) and safety trial Z-041 in BPH, with cetrorelix. The study Z-033 failed to achieve its primary endpoint, being an improvement in International Prostate Symptom Score (IPSS) as compared to placebo, and it demonstrated no clear differences in overall efficacy with all 3 groups showing an improvement in IPSS of approximately 4 points that was maintained throughout the 52 weeks. There was a slight advantage in favor of the main active treatment arm (Arm A) up to Week 46 of the follow-up, which was no longer demonstrated at Week 52. These differences did not achieve statistical significance. Furthermore, a statistically significant effect on the IPSS, as compared to placebo, was seen in a sub-group of patients with large prostate glands (greater than 50 cm^3) on entry to the study. Tolerability of cetrorelix in study Z-033 was very good, as evidenced by the absence of major differences to placebo with regard to both clinical adverse events and changes in laboratory parameters.

On December 7, 2009, we reported the Phase 3 results for cetrorelix from the European efficacy trial Z-036, involving 420 patients. Study Z-036 did not reach its primary endpoint. There were no clear differences in overall efficacy, with all 3 groups (including placebo) showing an improvement in IPSS of approximately 6 points that was maintained throughout the 52 weeks. There was observation of an improvement in uroflow, both maximum and mean, and in residual volume in all treatment groups. These favorable changes are reflected in an overall improvement in Quality of Life measures. Furthermore, a favorable trend on the IPSS, as compared to placebo, was seen in a sub-group of patients with large prostate glands (greater than 50 cm^3) on entry to the study. Cetrorelix was well tolerated, there were no relevant differences to placebo with regard to both clinical adverse events or changes in laboratory parameters with the exception of the anticipated hormonal changes.

On December 18, 2009, following the unsuccessful results of our Phase 3 program in BPH with cetrorelix, we announced the termination of our agreement with sanofi dated March 5, 2009, for the development, commercialization and licensing of cetrorelix in BPH for the U.S. market. Termination of the agreement took effect as of January 9, 2010.

Cetrorelix in endometriosis and uterine myoma

There is no active program ongoing at present.

Table of Contents

Partners for Cetrorelix

We previously licensed Cetrorelix to Solvay worldwide (ex-Japan) for all indications with the exception of IVF/COS/ART, which rights belong to Merck Serono and Japanese rights are held by Shionogi. In the BPH indication, for which we regained exclusive worldwide (ex-Japan) rights, Japanese rights are held by Shionogi. On May 8, 2007, we and Solvay announced the termination of the license and cooperation agreement for Cetrorelix for all remaining indications, including endometriosis, effective on that date, as a result of which we regained exclusive worldwide (ex-Japan) rights for Cetrorelix in all indications without any financial compensation payable to Solvay.

On March 22, 2007, we announced that Nippon Kayaku had terminated its development agreement pertaining to Cetrorelix pamoate to focus solely in oncology.

We signed a license and cooperation agreement for the commercialization of Cetrorelix (BPH indication) with Handok for the Korean market during the third quarter of 2008.

On March 5, 2009, we entered into a development, commercialization and license agreement with sanofi-aventis for the development, registration and marketing of Cetrorelix in BPH for the US market. Under the terms of the agreement, sanofi-aventis made an initial upfront payment to us of $30.0 million. Following the announcement of the negative results for the efficacy trial in North America (study Z-033) and in Europe (study Z-036), we announced the termination of our agreement with sanofi-aventis dated March 5, 2009 for the development, commercialization and licensing of Cetrorelix in BPH for the U.S. market. Termination of the agreement was effective January 9, 2010.

Following the negative Phase 3 results for cetrorelix in BPH, our Japanese partner, Shionogi, also agreed with the Company to cease the development of cetrorelix in this indication.

Ozarelix

Ozarelix is a modified LHRH antagonist which is a linear decapeptide sequence. Ozarelix is a fourth-generation LHRH antagonist aiming at extended suppression of testosterone levels that does not require a sophisticated depot formulation for long-lasting activity.

On August 12, 2004, we entered into a licensing and collaboration agreement with Spectrum for Ozarelix and its potential to treat hormone-dependent cancers as well as benign proliferative disorders, such as BPH and endometriosis. Under the terms of the agreement, we granted an exclusive license to Spectrum to develop and commercialize Ozarelix for all potential indications in North America (including Canada and Mexico) and India while keeping the rights for the rest of the world. In addition, Spectrum is entitled to receive 50% of upfront and milestone payments and royalties received from our Japanese partner, Nippon Kayaku, that are generated in the Japanese market for oncological indications. During the third quarter of 2008, we entered into a commercialization agreement with Handok for Ozarelix (BPH indication) for the Korean market.

BPH clinical trials

In October 2006, we announced positive and highly statistically significant Phase 2 results for Ozarelix in BPH. The primary efficacy endpoint of improving clinical symptoms of BPH at week 12, as measured by significant changes in IPSS, was achieved at all dosage regimens. Secondary efficacy parameters such as uroflow, residual urinary volume, quality of life and circulating testosterone levels were also measured and showed good results. The outcome of the trial demonstrated an excellent safety profile with Ozarelix as patients had no serious side effects. The erectile function was also not affected at any dose regimens.

On May 23, 2007 and September 5, 2007, Spectrum disclosed detailed Phase 2 results for Ozarelix in BPH at two medical conferences. Results indicate that Ozarelix was well tolerated and demonstrated statistically significant as well as clinically meaningful efficacy in the treatment of LUTS secondary to BPH.

On January 3, 2007, Spectrum announced the FDA s acceptance of an IND for Ozarelix in BPH. Spectrum initiated a Phase 2b study in January 2007. On April 22, 2008, our partner Spectrum released the nine-month Phase 2b results for ozarelix. Spectrum indicated that ozarelix demonstrated sufficient clinical activity to justify its continued development in BPH. Based on these results, Spectrum initiated in September 2008 the recruitment of 860 patients for a new BPH study, as mentioned on the www.clinicaltrials.gov website. In January 2010, Spectrum Pharmaceuticals announced the discontinuation of Ozarelix development in BPH, stating that the mixed results of their Phase 2b study and the recently announced negative results of our Phase 3 registrational trial of Cetrorelix in BPH does not support continued development of Ozarelix in this indication.

Table of Contents

Prostate cancer clinical trials

In August 2006, we announced positive Phase 2 results for Ozarelix in hormone-dependent inoperable prostate cancer. This open-label, randomized-controlled dose-finding trial enrolled 64 patients receiving different IM dosage regimens of Ozarelix to assess its safety and efficacy. The study achieved its primary endpoint of defining a tolerable dosage regimen of Ozarelix that would ensure continuous suppression of testosterone at castration level for a three-month test period. A secondary efficacy endpoint aimed at assessing tumor response as determined by a 50% or greater reduction of serum PSA level, compared to baseline, was also achieved. The best results regarding the primary endpoint of continuous suppression were obtained with a dose of 130 mg per cycle where all patients remained suppressed to castration until at least day 85. In patients with continuous testosterone suppression below castration level, tumor response as measured by PSA levels was 97%. Following these results, we, in collaboration with Spectrum, initiated an additional Phase 2 study in European centers to verify and optimize the findings derived from the cohort of patients having received 130 mg of Ozarelix per cycle.

On August 3, 2006, we announced a licensing and collaboration agreement with Nippon Kayaku for Ozarelix. Under the terms of the agreement, we granted Nippon Kayaku an exclusive license to develop and market Ozarelix for all potential oncological indications in Japan. In return, we received an upfront payment upon signature and are eligible to receive payments upon achievement of certain development and regulatory milestones, in addition to low double-digit royalties on potential net sales. Spectrum is entitled to receive 50% of the upfront, milestone payments and royalties received from Nippon Kayaku.

Non-peptide LHRH antagonists

As outlined above, the LHRH receptor plays an important role in a number of benign and malignant tumors. Our drug discovery unit searches for small, non-peptide molecules which have the same effect on the receptor. Their advantage lies in the potential for oral administration.

AEZS-115 is a new orally bioavailable LHRH antagonist with LHRH-receptor binding affinity in the nanomolar range which is developed for hormone therapy of endocrinological disorder and of benign and malignant tumors. The compound demonstrates excellent selectivity to LHRH-receptor and has advanced to a preclinical stage where the *in vivo* activity has been confirmed. Major advantages are the dose-dependent reduction of sexual hormones without flare-up effect whereas no decrease down to castration level is necessary and therefore side effects are reduced.

In January 2006, we regained the exclusive worldwide rights to develop and commercialize AEZS-115 from Solvay. Attractive *in vivo* activity of this orally available peptidomimetic LHRH-antagonist was demonstrated with a single, oral administration (20mg/kg) in rats which led to efficient and revocable suppression of plasma testosterone levels for up to 12 hours. Furthermore, a repeat of the dosing of AEZS-115 increased the suppression time without accumulation in the plasma.

In 2007, an oral formulation was selected and pharmacokinetic data were obtained.

First preclinical results were presented at the 2008 San Antonio Breast Cancer Symposium on December 12, 2008 and showed substantial anti-tumor activity of AEZS-115 in human ovarian and breast cancer cell lines, as evidenced by exposure of human cell lines SKOV3, Ovcar 3 (human ovarian cancer cell lines) and MDA-MB 468 (human breast cancer cell line) to increasing concentrations of AEZS-115, peptidic GnRH-antagonist Cetrorelix and GnRH-agonist Triptorelin (1, 10, and 100 µM) for 48 days. The number of viable cells was determined by crystal violet staining as well as by ATP-dependent luminometric assays. Results showed that both GnRH-antagonists dose-dependently inhibited growth of all three cell lines, while GnRH-agonist Triptorelin showed marginal growth inhibition. Cell growth was inhibited by 40-60% following exposure to a concentration of 10 µM of AEZS-115 and by 60-80% when cells were exposed to 100 µM. Inhibition with Cetrorelix at 100 µM ranged from 20-40%, while only minor effects on cell growth were seen at 10µM. Optimization is ongoing.

RAW MATERIALS

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

Table of Contents

DISTRIBUTION

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. 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.

REGULATORY COMPLIANCE

Governmental authorities in Canada, the United States, Europe and other countries extensively regulate the preclinical and clinical testing, manufacturing, labeling, storage, record keeping, advertising, promotion, export, marketing and distribution, among other things, of our product candidates. In Canada, the Canadian Therapeutic Products Directorate is the Canadian federal authority that regulates pharmaceutical drugs and medical devices for human use. Prior to being given market authorization, a manufacturer must present substantive scientific evidence of a product s safety, efficacy and quality as required by the Food and Drugs Act and other regulations. In the United States, the FDA under the Federal Food, Drug, and Cosmetic Act, the Public Health Service Act and other federal statutes and regulations, subject pharmaceutical products to rigorous review. For more information about the regulatory risks associated with the Company s business operations, see Item 3 Key Information Risk Factors .

DRUG DISCOVERY

There is an increasing demand on the world market for active substances. Our internal drug discovery unit provides an important prerequisite for the provision of new patented active substances, which can then be developed further or licensed to third parties.

Our drug discovery unit concentrates on the search for active substances for innovative targets which open the door to the introduction of new therapeutic approaches. Further, this unit searches for new active substances having improved properties for clinically validated targets for which drugs are already being used in humans and which produce inadequate effects, cause severe side effects, are not economical or are not available in a patient-friendly form.

To this end, we possess an original substance library for the discovery of active compounds with a comprehensive range of promising natural substances which can serve as models for the construction of synthetic molecules. The initial tests involve 120,000 samples from our internal substance library in the form of high-throughput screening. The hits, i.e. the first active compounds found in the library, are tested further and built up specifically into potential lead structures. Based on two to three lead structures, they are then optimized in a further step to potential development candidates.

INTELLECTUAL PROPERTY PATENTS

We believe that we have a solid intellectual property portfolio that covers compounds, manufacturing processes, compositions and methods of medical use for our lead drugs and drug candidates. Our patent portfolio consists of about 55 owned and in licensed patent families (issued, granted or pending in the United States, Europe and other jurisdictions). Independent from the original patent expiry date additional exclusivity is possible in the United States, Europe and several other countries by data protection for new chemical entities, by orphan drug designation, or by patent term extension respective supplementary protection certificate.

Of the issued or granted patents, the protective rights described below form the core of our patent portfolio with regard to our lead drugs and drug candidates.

Perifosine:

- U.S. patent 6,172,050 provides protection in the United States for the compound perifosine and other related alkyl phospholipid derivatives, pharmaceutical compositions comprising the compounds as well as their medical use for the treatment of tumors. This U.S. patent expires in July 2013. A patent term extension of up to five years may be possible and will be requested upon receiving marketing approval of perifosine.

Table of Contents

- European patent 0 579 939 provides protection in European countries for the compound perifosine and other related alkyl phospholipid derivatives, pharmaceutical compositions comprising the compounds as well as their medical use for the treatment of tumors. This European patent expires in June 2013. A patent term extension of up to five years by SPC may be possible and will be requested upon receiving marketing approval of perifosine.

- Japanese patent 3 311 431 provides protection in Japan for the compound perifosine and other related alkyl phospholipid derivatives. This Japanese patent expires in July 2013. A patent term extension of up to five years may be possible and will be requested upon receiving marketing approval of perifosine

AEZS-108:

- U.S. patent 5,843,903 provides protection in the United States for the compound AN-152 and other related targeted cytotoxic anthracycline analogs, pharmaceutical compositions comprising the compounds as well as their medical use for the treatment of tumors. This U.S. patent expires in November 2015. A patent term extension of up to five years may be possible and will be requested upon receiving marketing approval of AEZS-108.

AEZS-130:

- U.S. patent 6,861,409 protects the compound AEZS-130 and U.S. patent 7,297,681 protects other related growth hormone secretagogue compounds, pharmaceutical compositions comprising the compounds as well as their medical use for elevating the plasma level of growth hormone. This U.S. patent 6,861,409 expires in August 2022. A patent term extension of up to five years may be possible and will be requested upon receiving marketing approval of AEZS-130.

- European patent 1 289 951 protects the compound AEZS-130 and European patent 1 344 773 protects other related growth hormone secretagogue compounds, pharmaceutical compositions comprising the compounds as well as their medical use for elevating the plasma level of growth hormone. This European patent 1 289 951 expires in June 2021. A patent term extension of up to five years by supplementary protection certificates (SPC) may be possible and will be requested upon receiving marketing approval of AEZS-130.

- Japanese patent 3 522 265 protects the compound AEZS-130 and pharmaceutical compositions comprising the compounds as well as their medical use for elevating the plasma level of growth hormone. This Japanese patent expires in June 2021. A patent term extension of up to five years may be possible and will be requested upon receiving marketing approval of AEZS-130.

Cetrorelix:

- U.S. patent 5,198,533 provides protection in the United States for the compound cetrorelix and other LHRH antagonists. This U.S. patent will expire in October 2010 pursuant to a granted request for patent term extension.

- European patent 0 299 402 provides protection in European countries for the compound cetroelix and other LHRH antagonists. This patent will expire in July 2013 pursuant to granted requests for SPC.

- U.S. patent 6,828,415 protects a method for preparing sterile lyophilizate formulations of cetrorelix. It specifically protects the lyophilization process used to manufacture Cetrotide. This U.S. patent will expire in December 2021.

- European patent 0 611 572 protects a method for preparing sterile lyophilizate formulations of cetrorelix. It specifically protects the lyophilization process used to manufacture Cetrotide. This patent will expire in February 2014.

- U.S. patent 7,005,418 is a method-of-use patent covering the therapeutic management of extrauterine proliferation of endometrial tissue (endometriosis), chronic pelvic pain and/or fallopian tube obstruction by administering an LHRH antagonist in the form of a short-term induction treatment for a period of about 4 to 12 weeks. The U.S. patent will expire in August 2022.

Table of Contents

AEZS-112:

- U.S. patent 7,365,081 provides protection in the United States for the compound AEZS-112 and other related indole derivatives, and medicaments comprising them. This U.S. patent will expire in July 2021. A patent term extension of up to five years may be possible and will be requested upon receiving marketing approval of AEZS-112.

Ozarelix:

- U.S. patent 6,627,609 provides protection in the United States for the compound ozarelix and related third-generation LHRH antagonists and pharmaceutical compositions comprising them. This U.S. patent will expire in March 2020. A patent term extension of up to five years may be possible and will be requested upon marketing approval of ozarelix.

The table below lists some of our issued or granted patents in the United States and Europe:

Patent No.	Title	Country	Expiry Date*
Perifosine			
U.S. 6,172,050	Phospholipid derivatives	United States	2013-07-07*
AEZS-108			
U.S. 5,843,903	Targeted cytotoxic anthracycline analogs	United States	2015-11-27*
AEZS-130			
U.S. 6,861,409	Growth hormone secretagogues	United States	2022-08-01*
Cetrorelix			
EP 0 299 402	LHRH antagonists	Germany, United Kingdom, France, Switzerland and others	2013-07-10
U.S. 5,198,533	LHRH antagonists	United States	2010-10-24
EP 0 611 572	Process to prepare a cetrorelix lyophilised composition	Germany, United Kingdom, France, Switzerland and others	2014-02-04*
U.S. 6,828,415	Oliogopeptide lyophilisate, their preparation and use	United States	2021-12-07*
U.S. 6,716,817	Method of treatment of female infertility	United States	2014-02-22*
U.S. 6,863,891	Oligopeptide lyophilisate, their preparation and use	United States	2014-02-22*
U.S. 6,867,191	Preparation and use of oligopeptide lyophilisate for gonad protection	United States	2014-02-22*
EP 1 309 607	Method for producing LHRH antagonists	Germany, United Kingdom, France, Switzerland and others	2021-08-09*

U.S. 6,780,972	Method for the synthesis of peptide salts, their use and the pharmaceutical preparations, containing peptide salts	United States	2021-08-24*
U.S. 5,773,032	Long-acting injection suspensions and a process for their preparation	United States	2014-11-25*
AEZS-112			
U.S. 7,365,081	Indole derivatives and their use as medicaments	United States	2021-07-20*
Ozarelix			
U.S. 6,627,609	LHRH antagonists having improved solubility properties	United States	2020-03-14*

* excluding any Patent Term Extension

Table of Contents

C. Organizational structure

The following chart presents our corporate structure, the jurisdiction of incorporation of our direct and indirect subsidiaries and the percentage of shares that we held in those subsidiaries as of December 31, 2009.

Æterna Zentaris Inc.
(Canada)

100%

Æterna Zentaris GmbH
(Germany)

100%

Zentaris IVF GmbH

(Germany)

100%

Æterna Zentaris, Inc
(Delaware)

D. Property, plants and equipment

Our corporate head office and facilities are located in Quebec City, Province of Quebec, Canada. The following table sets forth information with respect to our main facilities as of March 22, 2010.

Location	Use of space	Square Footage	Type of interest
1405 Parc Technologique Blvd. Quebec City (Quebec), Canada	Fully occupied for management, R&D and administration	4,400	Leased
20 Independence Blvd Warren, New Jersey, United States	Partially occupied for management, R&D and business development	10,741(1)	Leased
Weismüllerstr. 50		46,465	Leased

D-60314 Frankfurt-am-Main, Germany	Fully occupied for management, R&D, business development and administration

(1) Æterna Zentaris, Inc. sub-lets out to a sub-tenant approximately 7,500 square feet of adjacent premises.

Item 4A. Unresolved Staff Comments

None.

Table of Contents

Item 5. Operating and Financial Review and Prospects

Highlights

Perifosine

- June 1, 2009: Positive Phase 2 data on perifosine in advanced metastatic colon cancer and in advanced renal cell carcinoma were presented at the American Society of Clinical Oncology s (ASCO) annual meeting. The data demonstrated perifosine s anti-cancer activity and efficacy both as a single agent and in combination therapy. Data were generated by our North American partner, Keryx Biopharmaceuticals (Keryx).

- August 3, 2009: An agreement was reached with the United States Food and Drug Administration (FDA) regarding a Special Protocol Assessment (SPA) on the design of a double-blind, placebo-controlled Phase 3 trial with perifosine in relapsed or relapsed/refractory multiple myeloma patients previously treated with bortezomib (Velcade®). The Phase 3 trial is to be conducted by Keryx.

- September 16, 2009: Perifosine was granted Orphan Drug designation from the FDA for the treatment of multiple myeloma.

- December 2, 2009: Perifosine was granted Fast Track designation by the FDA for the treatment of relapsed/refractory multiple myeloma.

- December 7, 2009: Updated positive Phase 2 efficacy and safety data, as well as new survival data for perifosine in combination with bortezomib (Velcade®) (+/- dexamethasone) in patients with relapsed/refractory multiple myeloma, were presented at the American Society of Hematology s (ASH) annual meeting. Results showed that the overall response rate was 41% and median overall survival was reported at 25 months for all evaluable patients. The combination therapy maintained an acceptable safety profile and no unexpected adverse events were reported. Data were presented by Keryx.

- December 16, 2009: The Phase 3 registration clinical trial with perifosine in relapsed/refractory multiple myeloma was initiated by Keryx.

AEZS-108

- May 31, 2009: Presentation at the ASCO s Annual Meeting of results supporting the evaluation of AEZS-108 in prostate cancer.

- November 2, 2009: Disclosure of positive preliminary results for the Phase 2 study with AEZS-108 in patients with platinum-resistant and taxane-pretreated ovarian cancer.

- November 24, 2009: Disclosure of positive efficacy data from a Phase 2 study with AEZS-108 in patients with advanced or recurrent endometrial cancer.

AEZS-112

- September 21, 2009: Disclosure of results from a Phase 1 study with AEZS-112 in patients with advanced solid tumors or lymphoma. Results showed prolonged courses of stable disease, excellent tolerability and potential for long-term use as a combination treatment for cancer.

AEZS-130

- June 11, 2009: Poster presentation on AEZS-130 (Solorel™) at the annual meeting of the Endocrine Society, reporting the first clinical data relating to the use of AEZS-130 (Solorel™) as a simple diagnostic test for adult growth hormone deficiency.

Table of Contents

Cetrorelix

- August 17, 2009: Disclosure of results from two Phase 3 studies with cetrorelix in BPH. The efficacy study Z-033 (mainly conducted in North America) did not achieve its primary endpoint. Results from the safety study Z-041 were positive and exhibited a similar level of efficacy as the previously disclosed Phase 2 studies.

- December 7, 2009: Disclosure of Phase 3 results for our European efficacy trial Z-036 in BPH with cetrorelix. The study did not reach its primary endpoint.

Corporate Developments

- June 23, 2009: Completion of a registered direct offering of $10.0 million to certain U.S. institutional investors.

- October 23, 2009: Completion of a $5.5 million registered direct offering with U.S. institutional investors.

- December 9, 2009: Appointment of Pierre Lapalme to our Board of Directors.

Cetrorelix Development, Commercialization and License Agreement

- March 4, 2009: Announcement of a development, commercialization and licensing agreement with sanofi-aventis U.S. LLC (sanofi) for the development, registration and marketing of cetrorelix in BPH for the U.S. market. The agreement provided us with a $30.0 million gross upfront payment.

- December 18, 2009: Announcement of the termination of our agreement with sanofi for the development, commercialization and licensing of cetrorelix in BPH for the U.S. market, subsequent to negative Phase 3 results.

Subsequent to Year-End

January 22, 2010: Notification from NASDAQ indicating that we were not in compliance with the minimum closing bid price rule.

January 25, 2010: Updated results of a Phase 2 study of perifosine in the treatment of advanced metastatic colon cancer showing a statistically significant benefit in survival, were reported by Keryx.

January 27, 2010: Our partner, Spectrum Pharmaceuticals, Inc. (Spectrum) announced the discontinuation of its development program for ozarelix in BPH.

January 29, 2010: A publication in the February 2010 issue of the *Journal of Clinical Cancer Research* reported positive Phase 2 results for perifosine as a single agent for the treatment of advanced Waldenstrom s macroglobulinemia.

February 3, 2010: The FDA granted a SPA for the Phase 3 trial of perifosine in combination with capecitabine (Xeloda®) in refractory metastatic colorectal cancer. The trial is to be conducted by Keryx.

March 1, 2010: Disclosure that the Committee for Orphan Medicinal Products of the European Medicines Agency issued a positive opinion for orphan medicinal product designation for perifosine for the treatment of multiple myeloma.

March 12, 2010: We filed a Canadian short-form base shelf prospectus, as well as a registration statement on Form F-3 with the United States Securities and Exchange Commission (SEC), which were declared effective by both the Canadian authorities and the SEC, and which would permit us to issue up to $60.0 million of freely tradeable common shares and warrants to purchase common shares.

Table of Contents

Introduction

The following Management s Discussion and Analysis (MD&A) provides a review of the results of operations, financial condition and cash flows of Æterna Zentaris Inc. for the year ended December 31, 2009. In this MD&A, the Company , we , us , and our mean Æterna Zentaris Inc. and its subsidiaries. This discussion should be read in conjunction with the information contained in the Company s consolidated financial statements and related notes as at and for the years ended December 31, 2009, 2008 and 2007. Our consolidated financial statements, reported in United States dollars (US dollars), except where otherwise noted, have been prepared in accordance with Canadian Generally Accepted Accounting Principles (Canadian GAAP) for financial information, which differ in certain respects from United States Generally Accepted Accounting Principles (US GAAP). The recognition, measurement and disclosure differences as they relate to the Company are described in note 26 to our 2009 consolidated financial statements included elsewhere in this annual report.

About Forward-Looking Statements

This document contains forward-looking statements, which reflect our current expectations regarding future events. Forward-looking statements may include words such as anticipate, believe, could, expect, goal, guidance, intend, may, objective, outlook, plan, seek, should, strive, target and will.

Forward-looking statements involve risks and uncertainties, many of which are discussed in this MD&A. Results or performance may differ significantly from expectations. For example, the results of current clinical trials cannot be foreseen, nor can changes in policy or actions taken by such regulatory authorities as the FDA, the Therapeutic Products Directorate of Health Canada or any other organization responsible for enforcing regulations in the pharmaceutical industry.

Given these uncertainties and risk factors, readers are cautioned not to place undue reliance on any forward-looking statements. We disclaim any obligation to update any such factors or to publicly announce any revisions to any of the forward-looking statements contained herein to reflect future results, events or developments, unless required to do so by a governmental authority or by applicable law.

About Material Information

This MD&A includes the information we believe to be material to investors after considering all circumstances, including potential market sensitivity. We consider information and disclosures to be material if they result in, or would reasonably be expected to result in, a significant change in the market price or value of our shares, or where it is quite likely that a reasonable investor would consider the information and disclosures to be important in making an investment decision.

The Company is a reporting issuer under the securities legislation of all of the provinces of Canada and its securities are registered with the United States Securities and Exchange Commission and is therefore required to file or furnish continuous disclosure documents such as interim and annual financial statements, an MD&A, a Proxy Circular, an Annual Report on Form 20-F, material change reports and press releases with the appropriate securities regulatory authorities. Copies of these documents may be obtained free of charge on request from the office of the

Secretary of the Company or on the Internet at the following addresses: www.aezsinc.com, www.sedar.com and www.sec.gov.

Company Overview

Æterna Zentaris Inc. (TSX: AEZ, Nasdaq: AEZS) is a late-stage drug development company specialized in oncology and endocrine therapy.

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 (Solorel™) as a growth hormone (GH) stimulation test for the diagnosis of GH deficiency in adults (AGHD).

Table of Contents

Key Developments for the Year Ended December 31, 2009

Drug Development

Status of our drug pipeline as at December 31, 2009

Discovery	Preclinical	Phase 1	Phase 2	Phase 3	Commercial
120,000 compound library	AEZS-120 Prostate cancer vaccine (oncology)	AEZS-112 (oncology)	Perifosine • Metastatic colon cancer	Perifosine • Multiple myeloma	Cetrotide® (*in vitro* fertilization)
	AEZS-129 Erk & PI3K Inhibitors (oncology)	AEZS-130 Therapeutic in tumor induced cachexia (endocrinology)	• Kidney cancer	AEZS-130 (SolorelTM)	
	AEZS-127 ErPC (oncology)		AEZS-108 • Ovarian cancer • Endometrial cancer	• Diagnostic in adult growth hormone deficiency (endocrinology)	
	AEZS-123 Ghrelin receptor antagonist (endocrinology)				
	AEZS-115 Non-peptide LHRH antagonists (endometriosis & urology)				
Partners					
			Perifosine: **Keryx** North America	Perifosine: **Keryx** North America	Cetrotide®: **Merck Serono** (World

			ex-Japan)
	Handok Korea (oncology)	**Handok** Korea (oncology)	**Nippon Kayaku / Shionogi** Japan

ONCOLOGY

Perifosine

Perifosine is the first orally active Akt inhibitor in a Phase 3 trial for multiple myeloma, as well as in multiple Phase 2 trials for other types of cancer. The compound modulates several key signal transduction pathways, including Akt, MAPK, and JNK that have been shown to be critical for the survival of cancer cells. Perifosine has demonstrated single agent antitumor activity in Phase 1 and Phase 2 studies and is currently being studied as a single agent and in combination with several forms of anti-cancer treatments for various forms of cancer.

In June 2009, our partner Keryx reported positive Phase 2 results in metastatic colon cancer and advanced renal cell carcinoma, which demonstrated perifosine s anti-cancer activity and efficacy both as a single agent and in combination therapy.

Table of Contents

On July 14, 2009, our partner Keryx announced the initiation of a Phase 1 clinical study to evaluate perifosine as a single agent treatment for recurrent solid tumors in pediatric patients. This single-center open-label study, fully funded by an external grant provided by a private organization, will be conducted at Memorial Sloan-Kettering Cancer Center in New York City. Oren Becher, MD, Instructor, Department of Pediatrics, in coordination with Eric Holland, MD, Ph.D., Director of the Brain Tumor group at Memorial Sloan-Kettering Cancer Center, will act as the study s Principal Investigator. Perifosine is being evaluated as a single-agent in pediatric patients with any solid tumor that has failed standard therapy. Patients up to 18 years of age with a performance status of greater than 40% are eligible for this study. The study has been designed as a dose escalation study to determine the maximum tolerated dose (MTD) of perifosine alone in recurrent/progressive pediatric tumors. A standard 3+3 dose escalation design will be employed with 3 to 6 patients at each dose level. All patients will receive perifosine at a loading dose on the first day, followed by a maintenance dose to start on day two until progression of disease. A minimum of 4 and a maximum of 24 patients will be required to complete the study.

On August 3, 2009, we announced that Keryx had reached an agreement with the FDA regarding a SPA on the design of a Phase 3 registration trial for perifosine, in relapsed or relapsed/refractory multiple myeloma patients previously treated with bortezomib (Velcade®). Under the SPA, it is agreed with the FDA that the Phase 3 study design adequately addresses objectives in support of a regulatory submission. The study, entitled *A Phase 3 Randomized Study to Assess the Efficacy and Safety of Perifosine Added to the Combination of Bortezomib and Dexamethasone in Multiple Myeloma Patients Previously Treated with Bortezomib* and powered at 90%, is a randomized (1:1), double-blind trial comparing the efficacy and safety of perifosine to placebo when combined with bortezomib and dexamethasone in approximately 400 patients with relapsed or relapsed/refractory multiple myeloma. The primary endpoint is progression-free survival and secondary endpoints include overall response rate, overall survival and safety.

In addition, in September 2009, perifosine received Orphan Drug designation from the FDA for the treatment of multiple myeloma, which provides a seven-year period of U.S. marketing exclusivity for perifosine if the drug is the first of its type approved for the specified indication or if it demonstrates superior safety, efficacy, or a major contribution to patient care versus another drug of its type previously granted the designation for the same indication.

On September 29, 2009, we also reported updated clinical results from the Phase 2 study of perifosine from renal cell cancer patients who failed both a VEGF receptor inhibitor [sunitinib (Sutent®) or sorafenib (Nexavar®)] and an mTOR inhibitor [temsirolimus (Torisel®) or everolimus (Afinitor®)]. Evaluable patients (n=16) were defined as those who had greater than 7 days of treatment (2 additional patients withdrew consent within 7 days). Patients received 100 mg of perifosine daily until progression or unacceptable toxicity. The primary endpoint of this study was clinical benefit, defined as response rate (complete/partial by RECIST) or percentage of patients progression-free for at least 3 months. Median progression-free survival (PFS) and overall survival were also analyzed for efficacy. Safety was a secondary endpoint. Perifosine was well tolerated with the most common adverse events being gastrointestinal discomfort and fatigue. Fifty percent (50%) of evaluable patients had a partial response or a stable disease with a progression for survival of 16 weeks.

On October 8, 2009, Keryx also announced the initiation of a Phase 2 single-center, open-label, clinical study entitled *Phase 2 Trial of Perifosine in Patients with Relapsed or Refractory Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma* to evaluate perifosine as a single agent treatment for relapsed or refractory Chronic Lymphocytic Leukemia (CLL) and Small Lymphocytic Lymphoma (SLL). This Phase 2 study was designed by Daphne Friedman, MD, Instructor and Principal Investigator, in coordination with J. Brice Weinberg, Professor, and Mark Lanasa, Assistant Professor, Divisions of Medical Oncology and Hematology, Duke University Medical Center, and is currently open for enrollment at Duke University. In this study, which will enroll approximately 30 patients, perifosine will be given orally at a dose of 50 mg twice daily, for a total of six 28-day cycles. The patients will be formally restaged upon completion of the trial. Overall Response Rate is the primary endpoint with overall survival, progression-free survival and safety as secondary endpoints. Correlative studies will also be conducted and evaluated as a secondary endpoint.

On November 9, 2009, we announced the publication of a scientific article in the renowned Journal of Urology, supporting the development of perifosine for the treatment of cancer. The article outlines the pivotal role of PI3K and Akt signalling pathways in renal cell carcinoma pathogenesis thus, representing an ideal target for therapeutic intervention. Perifosine is described as the most advanced PI3K/Akt pathway inhibitor, which has already proved to be clinically active, as well as an ideal compound to combine with other anticancer agents.

On December 2, 2009, we announced that the U.S. Food and Drug Administration (FDA) had granted Fast Track designation for perifosine for the treatment of relapsed/refractory multiple myeloma. The Fast Track program is designed to facilitate the development and expedite the review of new drugs that are intended to treat serious or life-threatening conditions and that demonstrate the potential to address unmet medical needs. Fast Track designated drugs ordinarily qualify for priority review, thereby expediting the FDA review process.

Table of Contents

On December 7, 2009, we announced that Keryx had reported updated Phase 2 efficacy and safety data as well as new survival data on the clinical activity of perifosine in combination with bortezomib (Velcade®) (+/- dexamethasone) in patients with relapsed/refractory multiple myeloma at the 51st annual meeting of the American Society of Hematology. Reported for the first time for all 73 evaluable patients, was median progression-free survival (6.4 months/95% CI (5.3, 7.1) and overall survival (25 months/95% CI (15.5, not reached). Of particular interest was the comparison of evaluable patients who were previously refractory and the patients who were relapsed to a bortezomib-based regimen. Median progression-free survival (PFS) and overall survival (OS) for bortezomib relapsed vs. refractory were as follows:

Bortezomib Relapsed vs. Refractory	**Median PFS***	**Median OS****
Bortezomib Relapsed (n=20)	8.8 months	Not Reached at 38+ months
	95% CI (6.3, 11.2)	95% CI (25, NR)
Bortezomib Refractory (n=53)	5.7 months	22.5 months
	95% CI (4.3, 6.4)	95% CI (12.3, NR)

* Median PFS and median TTP were identical, as no patient deaths occurred prior to progression.

** Kaplan Meier methodology was used to determine overall survival figures.

On December 16, 2009, we announced the initiation, by Keryx, of the Phase 3 registration clinical trial with perifosine in relapsed/refractory multiple myeloma which will involve approximately 400 patients. It is a double-blind, placebo-controlled trial comparing the efficacy and safety of perifosine vs. placebo when combined with bortezomib (Velcade®) and dexamethasone. The primary endpoint is progression-free survival and secondary endpoints include overall response-rate, overall survival and safety. The trial is being conducted pursuant to a SPA granted by the FDA.

On January 25, 2010, we announced that Keryx reported a statistically significant benefit in survival from updated results of a Phase 2 study of perifosine in the treatment of advanced metastatic colon cancer. Results showed improvement in both time to tumor progression and overall survival in the perifosine + capecitabine arm versus placebo + capecitabine arm. Of notable interest, and for the first time presented, were data showing a statistically significant benefit in median overall survival (15.3 months vs. 6.8 months p=0.0088) and time to progression (18 weeks vs. 10 weeks p=0.0004) for the subset of patients who were refractory to a 5-FU (Fluorouracil) chemotherapy-based treatment regimen.

On January 29, 2010, we announced the publication of positive Phase 2 results for perifosine as a single agent for the treatment of advanced Waldenstrom s macroglobulinemia in the February 2010 issue of the Journal of Clinical Cancer Research. Data demonstrated a 35% overall response rate with a median progression-free survival of 12.6 months in patients with relapsed or relapsed/refractory Waldenstrom s macroglobulinemia.

On February 3, 2010, we announced that Keryx had reached another SPA with the FDA for the Phase 3 trial of perifosine in refractory metastatic colorectal cancer.

March 1, 2010: Disclosure that the Committee for Orphan Medicinal Products of the European Medicines Agency issued a positive opinion for orphan medicinal product designation for perifosine for the treatment of multiple myeloma.

AEZS-108

AEZS-108 represents a new targeting concept in oncology using a cytotoxic peptide conjugate which is a hybrid molecule composed of a synthetic peptide carrier and a well-known cytotoxic agent, doxorubicin. The design of this product allows for the specific binding and selective uptake of the cytotoxic conjugate by LHRH-receptor-positive tumors. Phase 2 studies with AEZS-108, involving up to 82 patients with advanced endometrial cancer and advanced ovarian cancer, are being conducted and final results are expected in 2010.

On May 31, 2009, we presented results supporting the evaluation of AEZS-108 in prostate cancer at the American Society of Clinical Oncology (ASCO) Annual Meeting, which was held in Orlando, Florida.

On November 2, 2009, we disclosed positive preliminary results for the ongoing Phase 2 study in ovarian cancer. All 43 patients with LHRH-receptor positive ovarian cancer who entered study AGO-GYN-5 finished their study treatment, and a preliminary evaluation showed that the study met its primary efficacy endpoint of 5 or more responders in 41 evaluable patients. Responders, as well as patients with stable disease after completion of treatment with AEZS-108, are being followed to assess the duration of progression-free survival and, ultimately, overall survival. More detailed analyses, which will also

Table of Contents

include efficacy data from post-treatment follow-up, are currently in preparation and will be presented at forthcoming scientific conferences.

On November 24, 2009, we disclosed positive efficacy data from a Phase 2 study with AEZS-108, in patients with advanced or recurrent endometrial cancer. The study met its predefined primary efficacy endpoint of 5 or more responder patients. This open-label, multi-center and multi-national Phase 2 study AGO-GYN 5, is being conducted by the German AGO Study Group (Arbeitsgemeinschaft Gynäkologische Onkologie /Gynaecological Oncology Working Group; www.ago-ovar.de), in cooperation with clinical sites in Europe.

AEZS-112

AEZS-112 is an anticancer drug in development with three mechanisms of action involved, including tubulin and topoisomerase II inhibition. AEZS-112 also expresses actions such as pro-apoptotic and antiangiogenic properties.

On April 22, 2009, we presented a poster at the Annual Meeting of the American Association of Cancer Research (AACR) which outlined Phase 1 results for AEZS-112 in patients with advanced solid tumors or lymphoma, which may potentially provide a new therapeutic approach for the treatment of cancer.

On September 21, 2009, we announced the completion of the Phase 1 study of AEZS-112. This open-label, dose escalation, multi-center, intermittent treatment Phase 1 study included patients with advanced solid tumors and lymphoma who had either failed standard therapy or for whom no standard therapy existed.

Patients received a once-a-week oral administration of AEZS-112 for three consecutive weeks, followed by a one-week period without treatment. The cycles were repeated every four weeks based on tolerability and response, basically planned for up to four cycles, but allowing for continuation in case of potential benefit for the patient. The starting dose of AEZS-112 in this study was 13 mg/week, with doubling of doses in subsequent cohorts in the absence of significant toxicity. The study was performed in two parts and included 42 patients overall. In Part I, 22 patients were studied on doses ranging from 13 to 800 mg/week. In Part II, the weekly dose was split into 3 doses taken 8 hours apart, and ultimately, 20 patients received doses from 120 to 600 mg/week. Stable disease with time to failure ranging from 20 to 60+ weeks was achieved in 12 patients with various cancer types, including melanoma and cancers of the colon/rectum, lung, pancreas, prostate, tongue, trachea and thyroid. In several of these patients, the duration of stabilization exceeded the duration of disease control on previous treatment regimens. Except for a dose-limiting gastrointestinal (GI) reaction in a patient with pre-existing GI problems, no clinically relevant drug-related adverse events or changes in laboratory safety parameters were observed.

AEZS-129

On April 21, 2009, we presented two posters on AEZS-129, a promising compound for clinical intervention of the PI3K/ Akt pathway in human tumors, at the American Association for Cancer Research (AACR) Annual Meeting. *In vivo* and *in vitro* data showed significant antitumor activity and a favorable *in vitro* pharmacologic profile which could lead to further *in vivo* profiling.

ENDOCRINOLOGY

AEZS-130

AEZS-130, 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 growth hormone (GH).

A Phase 3 clinical trial of AEZS-130 (Solorel™, proposed trademark for diagnostic use), to establish it as a diagnostic test for GHD in adults, was initiated in the United States by our former licensee, Ardana; however, the trial was suspended before completion because of Ardana s insolvency.

On June 5, 2009, we entered into an agreement with the administrators of Ardana to acquire all of Ardana s assets relating to AEZS-130 for $0.2 million.

On June 11, 2009, we presented a poster on AEZS-130 (Solorel™) at the annual meeting of the Endocrine Society (ENDO), reporting the first clinical data relating to the use of AEZS-130 (Solorel™) as a simple diagnostic test for adult growth hormone deficiency.

Table of Contents

On October 19, 2009, we announced that we had initiated activities intended to complete the clinical development of AEZS-130 (Solorel™), which could be the first oral diagnostic test approved for growth hormone deficiency (GHD).

We have already assumed the sponsorship of the Investigational New Drug application and are discussing with the FDA the best way to complete the ongoing Phase 3 clinical trial, and subsequently file a New Drug Application (NDA) for approval of AEZS-130 (Solorel™) as a diagnostic test for GHD in adults.

The pivotal Phase 3 trial (listed in www.clinicaltrials.gov study # NCT00448747) is designed to investigate the safety and efficacy of the oral administration of AEZS-130 (Solorel™) as a growth hormone stimulation diagnostic test compared to GHRH + L-arginine, administered intravenously. Currently available results from this study, previously reported by G. Merriam *et al*. (Poster P2-749, ENDO 09, June 2009), demonstrated no safety issues and better discrimination between adult GHD patients and normal controls with AEZS-130 (Solorel™) oral solution, compared to the currently used test with GHRH-Arginine intravenous administration.

Oral administration of AEZS-130 (Solorel™) offers more convenience and simplicity over the current GHD tests used, requiring either intravenous or intramuscular administration. Additionally, AEZS-130 (Solorel™) may demonstrate a more favorable safety profile than existing diagnostic tests, some of which may be inappropriate for certain patient populations e.g. diabetes mellitus or renal failure, and have demonstrated a variety of side effects which AEZS-130 (Solorel™) has not thus far. These factors may be limiting the use of GHD testing and may enable AEZS-130 (Solorel™) to become the diagnostic test of choice for GHD.

AEZS-130 (Solorel™) has been granted Orphan Drug designation for the diagnosis of growth hormone deficiency by the FDA, and we are now the sponsor of this orphan designation. Orphan Drug Designation confers a number of advantages to the further development of the drug, such as additional exclusivity for the molecule and the potential of waiving User fees at the time an NDA is filed.

Cetrorelix

Cetrorelix is a peptide with unique modes of action in BPH, which was the object of Phase 3 clinical trials applying an intermittent treatment schedule for treating symptoms associated with BPH, encompassing one safety trial (Z-041) and two efficacy trials (Z-033, Z-036) involving more than 1,600 patients in North America and Europe. Furthermore, the program also included another safety study (Z-043) TQT to assess the impact of cetrorelix on cardiac QT interval.

On August 17, 2009, we reported Phase 3 results for our North American efficacy trial Z-033 (including certain sites in Europe) and safety trial Z-041 in BPH, with cetrorelix.

The study Z-033 failed to achieve its primary endpoint, being an improvement in International Prostate Symptom Score (IPSS) as compared to placebo, and it demonstrated no clear differences in overall efficacy with all 3 groups showing an improvement in IPSS of approximately 4 points that was maintained throughout the 52 weeks. There was a slight advantage in favor of the main active treatment arm (Arm A) up to Week 46 of the follow-up, which was no longer demonstrated at Week 52. These differences did not achieve statistical significance.

Furthermore, a statistically significant effect on the IPSS, as compared to placebo, was seen in a sub-group of patients with large prostate glands (greater than 50 cm(3)) on entry to the study. Tolerability of cetrorelix in study Z-033 was very good, as evidenced by the absence of major differences to placebo with regard to both clinical adverse events and changes in laboratory parameters.

The multi-center safety study Z-041 was an open-label, single-armed study involving 528 patients in North America. Cetrorelix was generally well tolerated. Adverse events were mostly mild and transient in intensity. Serious adverse events occurred in 12 patients, but none of these was assessed as possibly drug-related. The most frequently reported adverse experiences included hot flushes, nasopharyngitis, injection site pain, and headache. Hot flushes were reported by 49 patients and were mild and of short duration in the majority of patients. Only one patient experienced a severe episode.

Furthermore, in study Z-041, efficacy was assessed using the IPSS which showed an improvement from a mean score of 21.2 at baseline to 15.6 at Week 26. In 63% of the patients, the improvement was by at least 3 points. Notably, the 46% of patients who had received previous treatment for BPH showed a mean improvement of 5 points, which is only slightly less than the 6 point improvement seen in treatment-naïve patients. Maximum uroflow improved by 25%, from 10.3 to 12.5 ml/sec, and also the mean uroflow showed a similar improvement.

Table of Contents

On September 30, 2009, we reported the results of our safety TQT study on cetrorelix. Results showed that the study met its primary endpoint and cetrorelix did not increase heart rate-corrected QT interval (QTc) at either the time of observed maximal concentration of cetrorelix ($Cetro_{max}$) or at the time of minimum level of serum testosterone ($Test_{min}$).

On December 7, 2009, we reported the Phase 3 results for cetrorelix from the European efficacy trial Z-036, involving 420 patients. Study Z-036 did not reach its primary endpoint. There were no clear differences in overall efficacy, with all 3 groups (including placebo) showing an improvement in IPSS of approximately 6 points that was maintained throughout the 52 weeks. There was observation of an improvement in uroflow, both maximum and mean, and in residual volume in all treatment groups. These favorable changes are reflected in an overall improvement in Quality of Life measures. Furthermore, a favorable trend on the IPSS, as compared to placebo, was seen in a sub-group of patients with large prostate glands (greater than 50 cm(3)) on entry to the study. Cetrorelix was well tolerated, there were no relevant differences to placebo with regard to both clinical adverse events or changes in laboratory parameters with the exception of the anticipated hormonal changes.

On December 18, 2009, following the unsuccessful results of our Phase 3 program in BPH with cetrorelix, we announced the termination of our agreement with sanofi dated March 5, 2009, for the development, commercialization and licensing of cetrorelix in BPH for the U.S. market. Termination of the agreement took effect as of January 9, 2010.

Ozarelix

Ozarelix is a luteinizing hormone-releasing hormone agonist. Mechanistically, LHRH antagonists exert rapid inhibition of luteinizing hormone and follicle stimulating hormone with an accompanying rapid decrease in sex hormones and would therefore be expected to be effective in a variety of hormonally dependent disease states including ovarian cancer, prostate cancer, BPH, infertility, uterine myoma and endometriosis.

On January 27, 2010, our partner, Spectrum Pharmaceuticals, announced the decision to discontinue the development of ozarelix in BPH. Spectrum reported that the mixed results of an earlier Phase 2b study and the recently announced failure of a large Phase 3 registrational trial of cetrorelix (another LHRH antagonist) in this indication do not support continued development in BPH.

AEZS-123

AEZS-123 is a ghrelin receptor antagonist. Since its discovery, ghrelin has emerged as one of the most promising targets in the field of obesity and other potential indications.

On July 7, 2009, we announced the publication in the renowned American scientific journal, *Proceedings of the National Academy of Sciences*, of new data supporting the use of our ghrelin receptor antagonist compound, AEZS-123, for the treatment of alcohol dependence that involves ghrelin.

Corporate Developments

Registered Direct Offerings

On June 23, 2009, we completed a registered direct offering of 5,319,149 units, with each unit consisting of one common share and a warrant to purchase 0.35 of a common share at a price of $1.88 per unit (the First Offering). The related warrants represent the right to acquire an aggregate of 1,861,702 common shares, as discussed below. We also granted warrants to the sole placement agent engaged in connection with the First Offering, as discussed below.

Total proceeds raised through the First Offering amounted to $10.0 million, less cash transaction costs of approximately $0.8 million and non-cash transaction costs of approximately $0.7 million, which represent previously deferred charges incurred in connection with the filing of a shelf prospectus. The purchasers in the offering were comprised of US institutional investors, and the securities described above were offered pursuant to a shelf prospectus dated September 27, 2007 and a prospectus supplement dated June 18, 2009.

We granted a total of 5,319,149 warrants (the First Investor Warrants) to the institutional investors who participated in the First Offering. Each First Investor Warrant entitles the holder to purchase 0.35 of a common share at an exercise price of $2.06 per share. The First Investor Warrants are exercisable between September 23, 2009 and December 23, 2011, and, upon complete exercise, would result in the issuance of an aggregate of 1,861,702 of our common shares.

Table of Contents

We estimated the fair value attributable to the First Investor Warrants of approximately $1.6 million as of the date of grant by applying the Black-Scholes pricing model, to which the following additional assumptions were applied: a risk-free annual interest rate of 1.74%, expected volatility of 90.6%, an expected term of 2.5 years, dividend yield of 0.0% and an issue-date market share price of $1.75. Transaction costs allocated to the First Investor Warrants amounted to approximately $0.2 million.

The First Investor Warrants may be exercised, at the option of the holder, by cash payment of the exercise price or, upon the existence of certain conditions, by cashless exercise , which means that in lieu of paying the aggregate exercise price for the shares being purchased upon exercise of the warrants in cash, the holder would receive the number of shares underlying the warrants equal to the quotient obtained by applying a formula, as defined by the terms of each First Investor warrant. We will not receive additional proceeds to the extent that warrants are exercised by cashless exercise.

The exercise price and number of common shares issuable on exercise of the First Investor Warrants may be adjusted in certain circumstances, including stock dividends or splits, subsequent rights offerings, pro-rata distributions and pursuant to transactions involving the merger or consolidation of the Company with another entity or other Fundamental Transaction, as defined in the warrant.

Additionally, and notwithstanding anything to the contrary, in the event of any type of Fundamental Transaction, as defined in the warrant, the Company or any successor entity shall, at our option, have the right to require the holders thereof to exercise the First Investor Warrants, or, at the holder s option, purchase the First Investor Warrants from the holders by paying the holders an amount of cash equivalent to the Black-Scholes value, as defined, of the remaining unexercised portion of the First Investor Warrant on the date of the consummation of an aforementioned Fundamental Transaction.

We granted a total of 820,668 warrants (the First Compensation Warrants) to the sole placement agent and its designated representatives engaged in connection with the First Offering. Each First Compensation Warrant entitles the holder to purchase 0.35 of a common share at an exercise price of $2.35 per share. The First Compensation Warrants are exercisable between December 23, 2009 and December 23, 2011, and, upon complete exercise, would result in the issuance of 287,234 of our common shares.

We estimated the fair value attributable to the First Compensation Warrants of approximately $0.2 million as of the date of grant by applying the Black-Scholes pricing model, to which the following additional assumptions were applied: a risk-free annual interest rate of 1.74%, expected volatility of 90.6%, an expected term of 2.5 years, dividend yield of 0.0% and an issue-date market share price of $1.75. The initial fair value of the First Compensation Warrants has been accounted for as additional transaction costs, since the instruments were granted to the sole placement agent as part of the terms of the underlying engagement and in recognition of the efforts made in connection with the First Offering.

The terms of the First Compensation Warrants, with the exception of the exercise price and period of exercise, are substantially the same as those contained in the First Investor Warrants discussed above.

On October 23, 2009, we completed a second registered direct offering of 4,583,335 units, with each unit consisting of one common share and a warrant to purchase 0.40 of a common share, at a price of $1.20 per unit (the Second Offering). The related warrants represent the right to acquire an aggregate of 1,833,334 common shares, as discussed below. We also granted warrants to the sole placement agent engaged in connection with the Second Offering, as discussed below.

Total proceeds raised through the Second Offering amounted to $5.5 million, less cash transaction costs of approximately $0.4 million. The purchasers in this offering were new and existing institutional investors, and the securities described above were offered by the Company pursuant to a shelf prospectus dated September 27, 2007 and a prospectus supplement dated October 19, 2009.

We granted a total of 4,583,335 warrants (the Second Investor Warrants) to the institutional investors who participated in the Second Offering. Each Second Investor Warrant entitles the holder to purchase 0.40 of a common share at an exercise price of $1.25 per share. The Second Investor Warrants are exercisable between October 23, 2009 and October 23, 2014, and, upon complete exercise, would result in the issuance of an aggregate of 1,833,334 common shares.

We estimated the fair value attributable to the Second Investor Warrants of approximately $1.3 million as of the date of grant by applying the Black-Scholes pricing model, to which the following additional assumptions were applied: a risk-free annual interest rate of 2.46%, expected volatility of 84.3%, an expected term of 5 years, dividend yield of 0.0% and an issue-date market share price of $1.09. Transaction costs allocated to the Second Investor Warrants amounted to approximately $0.1 million.

Table of Contents

The Second Investor Warrants may be exercised, at the option of the holder, by cash payment of the exercise price or, upon the existence of certain conditions, by cashless exercise , as defined and discussed above. We will not receive additional proceeds to the extent that warrants are exercised by cashless exercise.

The exercise price and number of common shares issuable on exercise of the Second Investor Warrants may be adjusted in certain circumstances, including stock dividends or splits, subsequent rights offerings, pro-rata distributions and pursuant to transactions involving the merger or consolidation of the Company with another entity or other Fundamental Transaction, as defined in the warrant.

Additionally, and notwithstanding anything to the contrary, in the event of any type of Fundamental Transaction, as defined in the warrant, the Company or any successor entity shall, at our option, have the right to require the holders thereof to exercise the Second Investor Warrants, or, at the holder s option, purchase the Second Investor Warrants from the holders by paying the holders an amount of cash equivalent to the Black-Scholes value, as defined, of the remaining unexercised portion of the Second Investor Warrant on the date of the consummation of an aforementioned Fundamental Transaction.

We granted a total of 320,832 warrants (the Second Compensation Warrants) to the sole placement agent engaged in connection with the Second Offering. Each Second Compensation Warrant entitles the holder to purchase 0.40 of a common share at an exercise price of $1.50 per share. The Second Compensation Warrants are exercisable between April 23, 2010 and October 23, 2012, and, upon complete exercise, would result in the issuance of 128,333 common shares.

We estimated the fair value attributable to the Second Compensation Warrant of approximately $0.1 million as of the date of grant by applying the Black-Scholes pricing model, to which the following additional assumptions were applied: a risk-free annual interest rate of 1.57%, expected volatility of 103.4%, an expected term of 3 years, dividend yield of 0.0% and an issue-date market share price of $1.09. The initial fair value of the Second Compensation Warrants has been accounted for as additional transaction costs, since the instruments were granted to the sole placement agent as part of the terms of the underlying engagement and in recognition of the efforts made in connection with the Second Offering.

The terms of the Second Compensation Warrants, with the exception of the exercise price and period of exercise, are substantially the same as those contained in the Second Investor warrants discussed above.

Cetrorelix Development, Commercialization and License Agreement

On March 4, 2009, we entered into a development, commercialization and license agreement with sanofi for the development, registration and marketing of cetrorelix in BPH for the U.S. market. Under the terms of the agreement, sanofi made an upfront nonrefundable license fee payment to us of $30.0 million. Also per the agreement, we would have been entitled to receive certain payments upon achieving certain pre-established regulatory and commercial milestones as well as escalating double-digit royalties on future net sales of cetrorelix for BPH in the United States.

On December 18, 2009, and following the announcement that our Phase 3 study with cetrorelix in BPH did not reach its primary endpoint, we disclosed that we had received notice from sanofi to terminate the underlying agreement, as discussed above. As a result, we fully recognized the aforementioned upfront payment, as the culmination of the earnings process was deemed to be complete.

As a result of entering into the agreement with sanofi, we paid a royalty to the Tulane Educational Fund (Tulane) pursuant to a license agreement whereby we obtained licenses to use Tulane s patents to develop, manufacture, market and distribute various compounds, including cetrorelix. This royalty, amounting to $3.0 million, was charged in full to selling expenses during 2009 as a result of sanofi s decision to terminate the related agreement.

Finally, as a result of both the aforementioned negative results and sanofi s decision to terminate the related agreement, we determined that certain intangible assets and certain items of property, plant and equipment were no longer recoverable, and therefore impaired, as discussed below.

Table of Contents

Consolidated Results of Operations

Quarterly Consolidated Results of Operations Information

(in thousands, except for per share data)

(unaudited)

		Quarters ended		
	December 31, 2009	September 30, 2009 $	June 30, 2009 $	March 31, 2009 $
Revenues	**40,182**	8,565	8,379	6,111
Earnings (loss) from operations	**11,511**	(9,789)	(12,238)	(13,442)
Net earnings (loss)	**12,032**	(11,288)	(13,080)	(12,388)
Net earnings (loss) per share				
Basic and diluted	**0.19**	(0.19)	(0.24)	(0.23)

		Quarters ended		
	December 31, 2008	September 30, 2008 $	June 30, 2008 $	March 31, 2008 $
Revenues	**7,244**	11,029	10,457	9,748
Loss from operations	**(16,315)**	(12,386)	(19,525)	(14,158)
Net loss	**(14,493)**	(13,879)	(20,579)	(10,866)
Net loss per share				
Basic and diluted	**(0.27)**	(0.26)	(0.39)	(0.20)

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

Fourth Quarter 2009 Results

Revenues were $40.2 million for the quarter ended December 31, 2009, compared to $7.2 million for the same quarter in 2008. The significant increase in revenues is due primarily to our having recognized the remaining unamortized portion, or approximately $30.4 million, of the upfront payment received from sanofi. Additionally, the increase is attributable to the recognition of remaining deferred revenues, amounting to approximately $1.8 million, associated with agreements related to the use of ozarelix, as intangible assets that, like cetrorelix, we deemed to be fully impaired in December 2009, as discussed in greater detail below.

Selling, general and administrative (SG&A) expenses were $6.2 million for the quarter ended December 31, 2009, compared to $3.0 million for the same quarter in 2008. The increase in SG&A expenses is predominantly related to the expensing of the remaining unamortized portion, or approximately $3.0 million, of the royalty paid to Tulane in connection with the agreement entered into with, and subsequently terminated by, sanofi, as discussed above.

Net research and development (R&D) expenses were $10.6 million for the quarter ended December 31, 2009, compared to $12.2 million for the same quarter in 2008. The decrease in R&D expenses primarily relates to lower costs having been incurred in connection with our Phase 3 program for cetrorelix in BPH, given the progressive completion through the end of 2009 of efficacy and safety studies associated with that compound.

Depreciation and amortization expenses for the quarter ended December 31, 2009 amounted to $8.1 million, compared to $3.4 million for the same quarter in 2008. The comparative increase is attributable to the fact that, in December 2009, and following our announcements that our second Phase 3 study with cetrorelix in BPH had not reached its primary endpoint and

Table of Contents

that sanofi had decided to terminate the related development, commercialization and license agreement (discussed above), we recognized an impairment charge equivalent to the remaining carrying value of cetrorelix, or approximately $3.9 million, as part of amortization expense. Also in December 2009, we determined that certain items of property, plant and equipment, utilized exclusively in the development activities related to cetrorelix, were also no longer recoverable. As a result, we recorded an impairment charge, as part of depreciation expense, of approximately $1.9 million. Lastly, in December 2009, we determined that ozarelix another luteinizing hormone-releasing antagonist that, despite its different formulation, works on the same mechanism of action as cetrorelix also was no longer recoverable. Further, in January 2010 and as noted above, Spectrum, to whom we had granted an exclusive license to develop and commercialize ozarelix for all potential indications in North America and India, announced that it had terminated its development program with ozarelix in BPH. Consequently, we recognized an impairment charge of approximately $1.4 million as part of amortization expense.

The aforementioned quarter-over-quarter increases were offset in large proportion by an impairment charge in the fourth quarter of 2008, amounting to approximately $2.4 million, related to teverelix, an intangible asset that had been determined to be impaired in December 2008.

Net earnings were $12.0 million, or $0.19 per basic and diluted share, for the quarter ended December 31, 2009, compared to a net loss of $14.5 million, or $0.27 per basic and diluted share, for the same quarter in 2008. The significant increase in net earnings is largely attributable to the significant increase in license fee revenues, combined with lower comparative R&D expenses, as discussed above, partly offset by increased SG&A expenses and depreciation and amortization charges, as discussed above.

We expect that the net loss for the first quarter of 2010, excluding any impact of foreign exchange gains or losses, will return to a level that is more aligned with pre-fourth quarter 2009 operational results.

Table of Contents

Consolidated Statements of Operations

(in thousands, except per share data)	Years ended December 31, 2009 $	2008 $	2007 $
Revenues			
License fees	**42,221**	8,504	12,843
Sales and royalties	**20,957**	29,462	28,825
Other	**59**	512	400
	63,237	38,478	42,068
Operating expenses			
Cost of sales, excluding depreciation and amortization	**16,501**	19,278	12,930
Research and development costs	**44,217**	57,448	39,248
R&D tax credits and grants	**(403)**	(343)	(2,060)
Selling, general and administrative expenses	**16,040**	17,325	20,403
Depreciation and amortization			
Property, plant and equipment	**3,285**	1,515	1,562
Intangible assets	**7,555**	5,639	4,004
Impairment of long-lived assets held for sale			735
	87,195	100,862	76,822
Loss from operations	**(23,958)**	(62,384)	(34,754)
Other income (expenses)			
Interest income	**349**	868	1,904
Interest expense	**(5)**	(118)	(85)
Foreign exchange gain (loss)	**(1,110)**	3,071	(1,035)
Other		(79)	(28)
	(766)	3,742	756
Loss before income taxes from continuing operations	**(24,724)**	(58,642)	(33,998)
Income tax (expense) recovery		(1,175)	1,961
Net loss from continuing operations	**(24,724)**	(59,817)	(32,037)
Net loss from discontinued operations			(259)
Net loss for the year	**(24,724)**	(59,817)	(32,296)
Net loss per share from continuing operations			
Basic and diluted	**(0.43)**	(1.12)	(0.61)
Net loss per share from discontinued operations			
Basic and diluted			
Net loss per share			
Basic and diluted	**(0.43)**	(1.12)	(0.61)

Table of Contents

Revenues are derived primarily from license fees, as well as from sales and royalties. Sales are derived from the manufacturing of Cetrotide® (cetrorelix acetate solution for injection), marketed for reproductive health assistance for *in vitro* fertilization and, prior to March 2008, from Impavido® (miltefosine), marketed for the treatment of leishmaniasis, as well as from active pharmaceutical ingredients. Royalties are derived from Cetrotide® and, prior to the fourth quarter of 2008, were payable by our partner, ARES Trading S.A. (Merck Serono). Beginning on October 1, 2008, royalty revenues derived from Merck Serono s net sales of Cetrotide® are recognized via the periodic amortization, under the units-of-revenue method, of proceeds received in connection with the sale in December 2008 of the underlying future royalty stream to Cowen Healthcare Royalty Partners L.P. (Cowen).

License fees are derived from non-periodic milestone payments, R&D contract fees and upfront payments (and related amortization thereof) received from our licensing partners.

License fee revenues increased to $42.2 million for the year ended December 31, 2009, compared to $8.5 million and $12.8 million for each of the years ended December 31, 2008 and 2007, respectively. The significant increase from 2008 to 2009 is almost exclusively attributable to the upfront payment received from sanofi, as well as from the full recognition of other previously deferred revenues associated with ozarelix, as discussed above.

The decrease in license fee revenues from 2007 to 2008 is mainly attributable to non-recurring milestone payments received in 2007 from Ardana and from Keryx. Also, the decrease is related to the termination of our licensing agreement with Solvay Pharmaceuticals BV (Solvay) in 2007. We regained the worldwide ex-Japan rights for endometriosis from Solvay during 2007.

License fee revenues are expected to decrease substantially in 2010, due to the known absence of future amortization of deferred revenues related to upfront payments already received.

Sales and royalties decreased to $21.0 million for the year ended December 31, 2009, compared to $29.5 million and $28.8 million for each of the years ended December 31, 2008 and 2007, respectively. The decrease from 2008 to 2009 is mainly related to lower royalty revenues having been recognized in 2009 in connection with our agreement with Merck Serono. Amortization of the proceeds received from Cowen for the year ended December 31, 2009 was lower than the royalty revenues generated and payable directly by Merck Serono during 2008. Additionally, sales volumes of Cetrotide® were slightly lower during the year ended December 31, 2009, as compared to 2008.

The increase in sales and royalties from 2007 to 2008 is mainly attributable to a large increase in sales of Cetrotide®, partly offset by lower sales of Impavido®.

Excluding the impact of foreign exchange rate fluctuations,sales and royalties are expected to decrease slightly in 2010.

Operating Expenses

Cost of sales decreased to $16.5 million for the year ended December 31, 2009 from $19.3 million and $12.9 million for each of the years ended December 31, 2008 and 2007, respectively. The decrease from 2008 to 2009 is largely attributable to the absence of Impavido® sales during the first three months of 2009, compared to the same period in 2008, while the increase in cost of sales from 2007 to 2008 is directly related to an overall increase in sales and royalties, as discussed above.

Cost of sales as a percentage of sales and royalties increased to 79% in 2009 from 65% in 2008, and from 45% in 2007. The increase in cost of sales as a percentage of sales and royalties from 2008 to 2009 is largely attributable to the comparative decrease in royalty revenues, as discussed above, while the higher percentage of cost of sales in 2008 compared to 2007 is largely related to the product mix, which includes a high concentration of sales related to Cetrotide®, a product that is more expensive to produce. In addition, we wrote down certain elements of our inventory to their net realizable value at the end of 2008, which contributed approximately $0.7 million to the increase in cost of sales compared to 2007.

We expect cost of sales as a percentage of sales and royalties to decrease to approximately 75% in 2010 due to a slight increase in our sales pricing, coupled with an overall reduction in production costs due to an expected favourable change in product mix that will result in additional third-party cost savings.

Table of Contents

R&D costs were $44.2 million for the year ended December 31, 2009, compared to $57.4 million and $39.2 million for each of the years ended December 31, 2008 and 2007, respectively. The decrease in R&D costs from 2008 to 2009 is largely attributable to a lower volume of expenses having been incurred in 2009 related to the continued advancement during the first nine months of 2009, followed by the winding down of our development activities linked to cetrorelix in BPH subsequent to our announcements that our related Phase 3 studies did not reach their primary endpoints.

The increase in R&D costs for the year 2008 compared to 2007 is mainly attributable to the advancement of our Phase 3 program with cetrorelix in BPH.

The following table summarizes primary third-party R&D costs, by product, incurred by the Company during the years ended December 31, 2009 and 2008.

(in thousands, except percentages)

(unaudited)

Product	Status	Indication	Year ended December 31, 2009		Year ended December 31, 2008	
			$	%	$	%
Cetrorelix	Phase 3*	BPH*	23,812	82.3	25,697	71.1
AEZS-130 (Solorel™)	Phase 3	Endocrinology (diagnostic)	592	2.0		
Perifosine	Phases 2 and 3	Oncology	304	1.1	2,425	6.7
Ozarelix	Phase 2*	BPH*	366	1.3	253	0.7
AEZS-108	Phase 2	Oncology	409	1.4	1,259	3.5
AEZS-112	Phase 1	Cancer	430	1.5	981	2.7
AEZS-129 / Erk PI3K	Preclinical	Cancer	1,151	4.0	1,609	4.5
AEZS-123 / Ghrelin receptor	Preclinical	Endocrinology and oncology	530	1.8	1,154	3.2
AEZS-115 / LHRH antagonist	Preclinical	Endocrinology and oncology	235	0.8	843	2.3
Other	Preclinical	Multiple	1,096	3.8	1,913	5.3
			28,925	100.0	36,134	100.0

* Development activities terminated in the last quarter of 2009 and beginning of 2010.

We expect our overall R&D investments to decrease significantly during 2010, largely due to the expected minimum costs associated with the winding down of our program with cetrorelix in BPH.

R&D tax credits and grants were $0.4 million for the year ended December 31, 2009, compared to $0.3 million and $2.1 million for each of the years ended December 31, 2008 and 2007, respectively. The decrease in R&D tax credits and grants in 2008 compared to 2007 is attributable to our having utilized only Quebec provincial tax credits in 2008, while in 2007, we also reduced our income tax payable by more than

$1.6 million, following the elimination of income taxes related to the distribution made to our shareholders in connection with our disposal of Atrium Biotechnologies Inc., now Atrium Innovations Inc. (Atrium).

SG&A expenses decreased to $16.0 million for the year ended December 31, 2009, compared to $17.3 million and $20.4 million for each of the years ended December 31, 2008 and 2007, respectively. The decrease from 2008 to 2009 is related to comparative Euro-to-US dollar exchange rate fluctuations and to the absence in 2009 of certain non-recurring corporate expenses due to cost-saving measures that were implemented beginning in the second quarter of 2008, despite the additional selling expenses charged during 2009 as pertaining to the royalty paid to Tulane, as discussed above.

The decrease in SG&A expenses in 2008 compared to 2007 is primarily related to the organizational changes and cost-saving measures that were implemented beginning in the second quarter of 2008.

We expect our SG&A expenses to decrease in 2010 by approximately $5.0 million, compared to 2009, given the absence of future amortization of the royalty paid to Tulane of $3.0 million related to our agreement with sanofi and given additional cost-saving measures, including workforce reduction and associated savings due to the expected overall decrease in development activities.

Table of Contents

Depreciation and amortization expenses increased to a combined $10.8 million for the year ended December 31, 2009, compared to $7.2 million and $5.6 million for each of the years ended December 31, 2008 and 2007, respectively.

The increase in depreciation and amortization expenses from 2008 to 2009 is attributable to the impairment charges related to cetrorelix, ozarelix and certain items of property, plant and equipment utilized exclusively in the development activities related to cetrorelix, as discussed above. This year-over-year increase was offset in large proportion by the impairment charge of $2.4 million recorded in 2008 related to teverelix, as discussed below.

The increase from 2007 to 2008 was primarily related to an impairment charge of approximately $2.4 million, recorded as amortization expense, taken in the fourth quarter of 2008 and related to teverelix, which had been determined to be impaired following Ardana s entering into voluntary administration. Ardana is party to an assignment agreement upon which the cash recoverability of teverelix depends, and, as such, this customer s entering into voluntary administration has triggered the likelihood that no future cash flows will be received by the Company in connection with the aforementioned license agreement. This increase in amortization expense was partially offset by reductions in depreciation and amortization expenses related to long-lived assets held for sale, including the Quebec City building and land, and Impavido®, on which depreciation and amortization ceased during the final months of 2007. The underlying assets were sold in 2008, as discussed above.

Impairment of long-lived assets held for sale amounted to $0.7 million for the year ended December 31, 2007. This impairment was related to the building and land held for sale for which the estimated fair value had been based on offers received by third parties.

Loss from operations amounted to $24.0 million for the year ended December 31, 2009, compared to $62.4 million and $34.8 million for each of the years ended December 31, 2008 and 2007, respectively.

The significant decrease in loss from operations is due to the significant year-over-year increase in license fee revenues, associated mainly with agreements for cetrorelix and ozarelix, combined with lower comparative R&D and SG&A expenses, partly offset by increased depreciation and amortization expenses and by a lower comparative manufacturer margin, as discussed above.

The increase in loss from operations in 2008 as compared to 2007 is largely attributable to a combination of lower license fee revenues, lower manufacturing margins, higher depreciation and amortization and higher R&D costs, partly offset by lower SG&A expenses.

We foresee our loss from operations to increase in 2010, as compared to 2009, mainly as a result of the expected non-recurrence of license fee amortization of previously deferred revenues associated with cetrorelix and ozarelix, as discussed above, partly offset by an anticipated reduction in R&D and SG&A costs.

Other income (expenses)

Interest income amounted to $0.3 million for the year ended December 31, 2009, compared to $0.9 million and $1.9 million for each of the years ended December 31, 2008 and 2007, respectively. Interest income is derived from our cash, cash equivalents and short-term investments, which, excluding restricted balances, totalled $38.1 million as at December 31, 2009, $49.7 million as at December 31, 2008 and $41.4 million as at December 31, 2007.

The decrease in interest income from 2007 to 2008 is due to the fact that less cash had been invested during 2008, with the exception of a large portion of the proceeds received in connection with our sale of rights to future royalties to Cowen, though only in December 2008.

Foreign exchange loss amounted to $1.1 million for the year ended December 31, 2009, compared to a gain of $3.1 million and a loss of $1.0 million for each of the years ended December 31, 2008 and 2007, respectively. The increased foreign exchange loss reported for the year ended December 31, 2009 is attributable to the comparative weakening of the US dollar vis-à-vis both the Canadian dollar and the euro since December 31, 2008, as presented below.

The increase in foreign exchange gains in 2008 is mainly attributable to advances to our German subsidiary, denominated in euros, and with our US-based subsidiary, denominated in US dollars, and the corresponding strengthening of the euro and the US dollar compared to the Canadian dollar. Since January 1, 2009, all foreign currency exposure risk on intra-group transactions has been eliminated, since the Company and all of its subsidiaries now use the euro as their functional currency

Table of Contents

due to a change in economic facts and circumstances. This change did not result in any significant impact on our consolidated financial statements.

The year-end conversion rates from the euro and Canadian dollar to the US dollar can be summarized as follows:

	As at December 31,		
1 US dollar equivalent to:	**2009**	**2008**	**2007**
	$	**$**	**$**
Euro	**0.7007**	0.7145	0.6870
Canadian dollar	**1.0510**	1.2180	0.9913

Income tax (expense) recovery was $nil for the year ended December 31, 2009, compared to ($1.2 million) and $2.0 million for each of the years ended December 31, 2008 and 2007, respectively.

The increase in income tax expense from 2007 to 2008 is largely attributable to a minimum tax payable in Germany due to the tax accounting ramifications of the sale of future royalties to Cowen, referred to above, and to the utilization, in 2007, of some of our future income tax assets following the non-recurring taxable capital gain realized in connection with our disposal of Atrium.

In 2010, we do not expect to record any significant income tax recovery or expense in our foreign or domestic entities.

Net loss from continuing operations was $24.7 million for the year ended December 31, 2009, compared to $59.8 million and $32.0 million for each of the years ended December 31, 2008 and 2007, respectively. The significant decrease in net loss from continuing operations is due to the significant year-over-year increase in license fee revenues, associated mainly with agreements for cetrorelix and ozarelix, combined with lower comparative R&D, SG&A and income tax expenses, partly offset by lower comparative sales and royalties and increased depreciation and amortization expenses and foreign exchange losses, as discussed above.

The increase in net loss from continuing operations from 2007 to 2008 is largely attributable to a combination of lower license fee revenues, an increase in R&D costs related to the advancement of our Phase 3 program with cetrorelix in BPH, lower manufacturing margins, higher depreciation and amortization and higher income tax expense in 2008, partly offset by lower SG&A expenses and higher net foreign exchange gains.

Net loss from discontinued operations represents the results of operations related to Echelon Biosciences, Inc. (Echelon), which we disposed of in November 2007 and whose results were included in our consolidated statements of operations for the year ended December 31, 2007.

Net loss was $24.7 million, or $0.43 per basic and diluted share for the year ended December 31, 2009, compared to $59.8 million, or $1.12 per basic and diluted share and $32.3 million, or $0.61 per basic and diluted share, for each of the years ended December 31, 2008 and 2007, respectively.

The significant decrease in net loss is due to the significant year-over-year increase in license fee revenues, associated mainly with agreements for cetrorelix and ozarelix, combined with lower comparative R&D, SG&A and income tax expenses, partly offset by lower comparative sales and royalties and increased depreciation and amortization expenses and foreign exchange losses, as discussed above.

The increase in net loss in 2008 as compared to 2007 is attributable to a combination of lower license fee revenues, lower manufacturing margins, higher depreciation and amortization, higher income tax expense and higher R&D costs, partly offset by lower SG&A expenses and higher net foreign exchange gains.

We expect that the net loss for the year 2010 will increase, together with our expected loss from operations, as discussed above.

The weighted average number of shares outstanding used to calculate basic net loss per share for the years ended December 31, 2009, 2008 and 2007 was 56.9 million shares, 53.2 million shares and 53.2 million shares, respectively.

Table of Contents

Consolidated Balance Sheet Information

(Unaudited)

(in thousands)	As at December 31, 2009 $	2008 $	2007 $
Cash and cash equivalents	**38,100**	49,226	10,272
Short-term investments		493	31,115
Accounts receivable and other current assets	**10,913**	12,005	18,193
Restricted cash	**878**		
Property, plant and equipment, net	**4,358**	6,682	7,460
Other long-term assets	**32,013**	39,936	56,323
Total assets	**86,262**	108,342	123,363
Accounts payable and other current liabilities	**19,211**	22,121	21,480
Current portion of long-term debt and payable	**57**	49	775
Long-term payable	**143**	172	
Non-financial long-term liabilities*	**57,625**	64,525	12,517
Total liabilities	**77,036**	86,867	34,772
Shareholders equity	**9,226**	21,475	88,591
Total liabilities and shareholders equity	**86,262**	108,342	123,363

* Comprised mainly of deferred revenues and employee future benefits.

2009 compared to 2008

The decrease in cash and cash equivalents as at December 31, 2009, compared to December 31, 2008 is due primarily to recurring cash flows used in operating activities and by the reduction of currently available cash due to a transfer of funds to a restricted account, as discussed below, largely offset by the receipt of proceeds from sanofi and to the receipt of net proceeds in connection with the two registered direct offerings, as discussed above.

The decrease in property, plant and equipment as at December 31, 2009, compared to December 31, 2008 is due largely to the impairment charge that was taken against certain items utilized exclusively in the development activities related to cetrorelix, as discussed above.

The decrease in other long-term assets primarily includes the reduction to intangible assets, which in turn was attributable to the impairment charges taken on cetrorelix and ozarelix, as discussed above. Additionally, the reduction is attributable to deferred charges amounting to approximately $0.7 million, which were deferred in 2007 and 2008, but which were included as a reduction to share capital in connection with the First Offering, as discussed above.

The reduction in non-financial long-term liabilities mainly is attributable to deferred revenues, which in 2009 were lower following both the ongoing amortization of the proceeds received from Cowen and the full recognition of previously deferred amounts associated with license and development agreements related to the use of ozarelix, as discussed above.

The decrease in shareholders equity from 2008 to 2009 is attributable to the increase in consolidated deficit due to the current year s net loss and to the decrease in accumulated other comprehensive income, offset in large proportion by the increase in share capital and warrants following the two registered direct offerings discussed above.

2008 compared to 2007

The increase in cash and cash equivalents and the decrease in short-term investments from 2007 to 2008 are discussed in more detail below. The decrease in accounts receivable and other current assets from 2007 to 2008 is largely attributable to lower customer billings in December 2008 compared to the same period in 2007, lower grants receivable at the end of 2008 and the write-down to net realizable value of certain components of inventory in December 2008, as discussed above.

The decrease in other long-term assets is primarily due to the disposal, in 2008, of the long-lived assets which had been reported as held for sale as at December 31, 2007, as discussed above and the impairment charge that was taken relative to teverelix in the fourth quarter of 2008, partially offset by a net increase in deferred charges, due mainly to the capitalization of financial advisory, legal and other costs incurred in connection with the sale of our rights to future royalties to Cowen. The

Table of Contents

increase in non-financial long-term liabilities is primarily attributable to the increase in deferred revenues following the receipt of proceeds from Cowen, as well as an increase in employee future benefits related mainly to employees in our German subsidiary.

The decrease in shareholders equity from 2007 to 2008 is almost entirely attributable to the increase in consolidated deficit due to the 2008 net loss and the decrease in accumulated other comprehensive income, which in turn is largely made up of cumulative translation adjustments.

Financial Liabilities, Obligations and Commitments

We have certain contractual obligations and commercial commitments. Commercial commitments mainly include R&D services and manufacturing agreements related to the production of Cetrotide® and to other R&D programs. The following table summarizes future cash requirements with respect to these obligations.

		Payments due by period			
(in thousands)	**Carrying amount $**	**Less than 1 year $**	**1 to 3 years $**	**4 to 5 years $**	**After 5 years $**
Long-term payable	200	57	114	29	
Operating leases	12,721	2,008	4,038	3,894	2,781
Commercial commitments	6,801	5,256	1,545		
Total	19,722	7,321	5,697	3,923	2,781

Outstanding Share Data

As at March 23, 2010, there were 63,089,954 common shares issued and outstanding and there were 6,213,922 stock options outstanding. Warrants outstanding as at March 23, 2010 represent a total of 4,110,603 equivalent common shares.

Capital disclosures

Our objective in managing capital is to ensure sufficient liquidity to fund our R&D activities, SG&A expenses, working capital and capital expenditures.

We endeavour to manage our liquidity to minimize dilution to our shareholders. Non-dilutive activities have included the sale of non-core assets and rights to future royalties, collection of investment tax credits and grants, interest income, licensing fees, service and royalties. More recently, however, we raised additional capital via the registered direct offerings discussed above.

During 2008, we fulfilled our obligation on the loan from the federal and provincial governments with a nominal value of CAN$800,000.

In connection with the sale of the Quebec City building and land discussed above, we entered into a long-term lease agreement with the principal tenant of the building. As part of the agreement, we agreed to pay the principal tenant CAN$300,000 (approximately $285,000) as an incentive and service fee. The resulting payable is non-interest bearing and is due in bi-annual installments of CAN$30,000 (approximately $28,500) over the next five years.

Our capital management objective remains the same as that of previous years. The policy on dividends is to retain cash to keep funds available to finance the activities required to advance our product development pipeline.

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

It is important to note that historical patterns of expenditures cannot be taken as an indication of future expenditures. The amount and timing of expenditures and availability of capital resources vary substantially from period to period, depending on the level of research and development activity being undertaken at any one time and on the availability of funding from investors and prospective commercial partners.

Table of Contents

Liquidity, Cash Flows and Capital Resources

Our operations and capital expenditures have been financed mainly through cash flows from operating activities, the selling of non-core assets and other non-dilutive activities, except for the two registered direct offerings completed during the year ended December 31, 2009, as discussed above.

Our cash, cash equivalents and short-term investments amounted to $38.1 million as at December 31, 2009, compared to $49.7 million as at December 31, 2008. Possible additional operating losses and/or possible investments in the acquisition of complementary businesses or products may require additional financing. As at December 31, 2009, cash, cash equivalents and short-term investments of the Company included CAN$2.6 million and 6.3million.

Based on our assessment, which took into account the cash received in connection with the 2008 sale of rights to future royalties to Cowen, the upfront payment received from sanofi and the net proceeds received in connection with the two registered direct offerings discussed above, as well as our strategic plan and corresponding budgets for 2010 and projections for 2011 and 2012, and despite the announcement of negative results associated with our Phase 3 studies with cetrorelix in BPH, we believe that the Company has sufficient financial resources to fund planned expenditures and other working capital needs for at least, but not limited to, the next 12-month period from the balance sheet date.

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

The variation of our liquidity by activity is explained below, not considering any cash flows used in or provided by discontinued operations.

Operating Activities

Cash flows used in our continuing operating activities amounted to $24.1 million for the year ended December 31, 2009, compared to $1.3 million and $25.7 million for each of the years ended December 31, 2008 and 2007, respectively.

The significant increase in cash used in our continuing operating activities from 2008 to 2009 is attributable to the receipt of cash proceeds of $52.5 million in 2008 from Cowen, as discussed below, compared to the lower cash proceeds of $30.0 million from sanofi in 2009, as discussed above. Also, operating cash payments for prepaid expenses and accounts payable were higher during 2009 as compared to 2008.

The significant decrease in cash used in operating activities from 2007 to 2008 relates in large proportion to the net cash proceeds received from Cowen, as discussed above, in addition to higher upfront payments received from certain customers and higher cash collections of trade accounts receivable. These cash inflows were partially offset by increased cash expenditures that contributed to the increase in our net loss, as well as by

payments made, which were mainly related to financial advisory, legal and other costs incurred in connection with the transaction with Cowen, as well as to a higher volume of trade accounts payable settlements.

We expect net cash used in continuing operating activities to increase significantly in 2010, as compared to 2009, largely given the comparative absence of net proceeds associated with our agreement with sanofi, which has been terminated, as discussed above.

Financing Activities

Net cash provided by (used in) continuing financing activities was $14.2 million for the year ended December 31, 2009, compared to ($1.2 million) and ($1.1 million) for each of the years ended December 31, 2008 and 2007, respectively. The significant increase in net cash provided by financing activities in 2009 is attributable to the registered direct offerings discussed above, while the funds in 2008 and 2007 were used mainly for the repayments of our long-term debt and payable, as well as in connection with the filing of a shelf prospectus.

Investing Activities

Cash (used in) provided by continuing investing activities (excluding the changes in short-term investments) amounted to ($1.7 million) for the year ended December 31, 2009, compared to $13.6 million and ($3.0 million) for each of the years ended December 31, 2008 and 2007, respectively. These fluctuations relate in large proportion to the disposals of the

Table of Contents

building and land in Quebec City and of Impavido®, both of which had been reported as long-lived assets held for sale as at December 31, 2007 and sold in 2008.

Also, as discussed above, during 2009, we transferred approximately $0.9 million to a restricted cash account. Changes to restricted cash balances, including any interest earned thereon, are reported in the statement of cash flows as investing activities.

Critical Accounting Policies and Estimates

Our consolidated financial statements are prepared in accordance with Canadian GAAP. A summary of significant and pertinent measurement and disclosure differences between Canadian and US GAAP is provided in note 26 to our 2009 consolidated financial statements. The preparation of financial statements in accordance with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosures of contingent assets and liabilities at the date of the financial statements, as well as the reported amounts of revenues and expenses during the reporting years. Significant estimates are generally made in connection with the calculation of revenues, research and development expenses, stock-based compensation costs, as well as in determining the allowance for doubtful accounts, future income tax assets and liabilities, the useful lives of property, plant and equipment and intangible assets with finite lives, the valuation of intangible assets and goodwill, the fair value of stock options and warrants granted, employee future benefits and certain accrued liabilities. We base our estimates on historical experience, where relevant, and on various other assumptions that we believe to be reasonable under the circumstances. Actual results could differ from those estimates.

The following summarizes our critical accounting policies and other policies that require the most significant judgment and estimates in the preparation of our consolidated financial statements.

Revenue Recognition and Deferred Revenues

We are currently in a phase in which potential products are being further developed or marketed jointly with strategic partners. Existing licensing agreements usually foresee one-time payments (upfront payments), payments for research and development services in the form of cost reimbursements, milestone payments and royalty receipts for licensing and marketing product candidates. Revenues associated with those multiple-element arrangements are allocated to the various elements based on their relative fair value.

Agreements containing multiple elements are divided into separate units of accounting if certain criteria are met, including whether the delivered element has stand-alone value to the customer and whether there is objective and reliable evidence of the fair value of the undelivered obligation(s). The consideration received is allocated among the separate units based on each unit s fair value and the applicable revenue recognition criteria are applied to each of the separate units.

License fees representing non-refundable payments received upon the execution of license agreements are recognized as revenue upon execution of the license agreements when we have no significant future performance obligations and when collectibility of the fees is assured. Upfront payments received at the beginning of licensing agreements are not recorded as revenue when received but are amortized based on the progress

to the related research and development work. This progress is based on estimates of total expected time or duration to complete the work, which is compared to the period of time incurred to date in order to arrive at an estimate of the percentage of revenue earned to date.

Milestone payments, which are generally based on developmental or regulatory events, are recognized as revenue when the milestones are achieved, collectibility is assured, and when there are no significant future performance obligations in connection with the milestones.

Royalty revenue, based on a percentage of sales of certain declared products sold by third parties, is recorded when we have fulfilled the terms in accordance with the contractual agreement and have no future obligations, the amount of the royalty fee is determinable and collection is reasonably assured.

Proceeds received in connection with the sale of rights to future royalties are deferred and recognized over the life of the license agreement pursuant to the units-of-revenue method, as discussed above.

Revenues from sales of products are recognized, net of estimated sales allowances and rebates, when title passes to customers, which is at the time goods are shipped, when there are no future performance obligations, when the purchase price is fixed and determinable, and collection is reasonably assured.

Table of Contents

Impairment of Long-Lived Assets and Goodwill

Property, plant and equipment and intangible assets with finite lives are reviewed for impairment when events or circumstances indicate that carrying values may not be recoverable. Impairment exists when the carrying value of the asset is greater than the undiscounted future cash flows expected to be provided by the asset. The amount of impairment loss, if any, is the excess of its carrying value over its fair value, which in turn is determined based upon discounted cash flows or appraised values, depending of the nature of assets.

Goodwill, which represents the excess of the purchase price over the fair values of the net assets of entities acquired at the respective dates of acquisition, is tested for impairment annually, or more frequently if events or changes in circumstances indicate that the carrying value of the reporting unit to which the goodwill is assigned may exceed the fair value of the reporting unit.

In the event that the carrying amount of a reporting unit, including goodwill, exceeds its fair value, an impairment loss is recognized in an amount equal to the excess. Fair value of goodwill is estimated in the same way as goodwill is determined at the date of the acquisition in a business combination, that is, the excess of the fair value of the reporting unit over the fair value of the identifiable net assets of the reporting unit.

Income Taxes

We operate in multiple jurisdictions, and our earnings are taxed pursuant to the tax laws of these jurisdictions. Our effective tax rate may be affected by changes in, or interpretations of, tax laws in any given jurisdiction, utilization of net operating losses and tax credit carry-forwards, changes in geographical mix of income and expense, and changes in management s assessment of matters, such as the ability to realize future tax assets. As a result of these considerations, we must estimate our income taxes in each of the jurisdictions in which we operate. This process involves estimating our actual current tax exposure, together with assessing temporary differences resulting from differing treatment of items for tax and accounting purposes. These differences result in future tax assets and liabilities, which are included in our consolidated balance sheet. We must then assess the likelihood that our future tax assets will be recovered from future taxable income and establish a valuation allowance if, based on available information, it is more likely than not that some or all of the future income tax assets will not be realized.

Significant management judgment is required in determining our provision for income taxes, our income tax assets and liabilities, and any valuation allowance recorded against our net income tax assets. The valuation allowance is based on our estimates of taxable income by jurisdiction in which we operate and the period over which our income tax assets will be recoverable. In the event that actual results differ from these estimates or we adjust these estimates in future periods, we may need to amend our valuation allowance, which could materially impact our financial position and results of operations.

Stock-Based Compensation Costs

We account for all forms of employee stock-based compensation using the fair value-based method. This method requires that we make estimates about the risk-free interest rate, the expected volatility of our shares and the expected life of the awards.

New Accounting Standards

Impact of accounting standards adopted in 2009

In February 2008, the Canadian Institute of Chartered Accountants (CICA) issued Handbook Section 3064, *Goodwill and Intangible Assets*. This standard provides guidance on the recognition of intangible assets and the criteria for asset recognition, clarifying the applications of the concept of matching revenues and expenses, whether these assets are separately acquired or are developed internally. The standard applies to our interim and annual financial statements for periods beginning on January 1, 2009. Adoption of this standard has not had any impact on our consolidated financial statements.

In January 2009, the CICA issued Handbook Section 1582, *Business Combinations*, which replaces the existing standards. This section establishes the standards for accounting for business combinations and states that all assets and liabilities of an acquired business will be recorded at fair value. Obligations for contingent considerations and contingencies will also be recorded at fair value at the acquisition date. The standard also states that acquisition-related costs will be expensed as incurred and that restructuring charges will be expensed in the periods after the acquisition date. We have early adopted this standard effective January 1, 2009 and will apply the provisions thereof prospectively to future business combinations.

Table of Contents

In January 2009, the CICA issued Handbook Section 1601, *Consolidated Financial Statements*, which replaces the existing standards and establishes the standards for preparing consolidated financial statements and is effective for 2011. We have early adopted this standard effective January 1, 2009 and will apply the provisions thereof prospectively, where applicable.

In January 2009, the CICA issued Handbook Section 1602, *Non-controlling Interests*, which establishes standards for accounting for non-controlling interests of a subsidiary in the preparation of consolidated financial statements subsequent to a business combination. We have early adopted this standard effective January 1, 2009 and have applied the provisions thereof retrospectively, without any impact on our consolidated financial statements.

In January 2009, the CICA s Emerging Issue Committee (EIC) issued Abstract EIC-173, Credit Risk and the Fair Value of Financial Assets and Liabilities , which requires entities to take both counterparty credit risk and their own credit risk into account when measuring the fair value of financial assets and liabilities, including derivatives. We adopted EIC-173 on January 1, 2009, and such adoption did not have a material impact on our consolidated financial statements.

In July 2009, the CICA amended Handbook Section 1506, *Accounting Changes*, to exclude from its scope changes in accounting policies upon the complete replacement of an entity s primary basis of accounting. The amendments apply to interim and annual financial statements relating to years beginning on or after July 1, 2009. We early adopted these amendments on July 1, 2009, and such adoption did not have any impact on our consolidated financial statements.

In June 2009, the CICA amended Handbook Section 3862, *Financial Instruments Disclosures*, to include additional disclosure requirements about fair value measurements of financial instruments and to enhance liquidity risk disclosure requirements for publicly accountable enterprises. The amendments apply to annual financial statements for years ending after September 30, 2009. We have adopted these amendments, and there has been no significant impact on our consolidated financial statements. Additional required disclosures have been made where applicable.

Accounting standards not yet adopted

In December 2009, the EIC issued abstract EIC-175, Multiple Deliverable Revenue Arrangements (EIC-175), which requires a vendor to allocate arrangement consideration at the inception of an arrangement to all deliverables using the relative selling price method. EIC-175 also changes the level of evidence of the standalone selling price required to separate deliverables when more objective evidence of the selling price is not available. Given the requirement to use the relative selling price method of allocating arrangement consideration, EIC-175 prohibits the use of the residual method. EIC-175 may be applied prospectively and is applicable to revenue arrangements with multiple deliverables entered into or materially modified in the first annual fiscal period beginning on or after January 1, 2011, with early adoption permitted. We are currently evaluating the impact that this guidance may have on our consolidated financial statements.

International Financial Reporting Standards (IFRS)

We are currently evaluating the potential impact that could result from preparing our consolidated financial statements in accordance with IFRS, given that the Canadian Accounting Standards Board confirmed that IFRS will replace current Canadian standards and interpretations as Canadian GAAP for publicly accountable enterprises. The adoption of IFRS will have an impact on our consolidated financial statements, as well as on certain operational and performance measures, beginning on January 1, 2011.

As previously disclosed, we have developed a formal plan for IFRS conversion and the related transition from current standards. To date, we have completed a full diagnostic, in which all existing international standards were examined in comparison with corresponding Canadian guidance, and significant differences between IFRS and Canadian GAAP were documented in order to plan for more detailed analysis, which is the focus of our conversion project s solutions development phase, currently underway.

Solutions development activities include, but are not limited to, the following key activities:

- Performance of a more detailed review of relevant IFRS standards in order to identify differences as compared to our current accounting policies;

- Performance of quantitative and qualitative impact analyses pursuant to the application of current international guidance to financial information;

- Preparation of mock financial statements and notes in accordance with IFRS in order to establish a model for required presentation, format and disclosures;

Table of Contents

- Selection or modification of accounting policies, where required or appropriate, including those available under IFRS 1, *First-time Adoption of International Financial Reporting Standards* (IFRS 1), as discussed below;
- Identification of any necessary changes relative to information-gathering activities and processes, including systems;
- Identification of impact on other internal and external stakeholders; and
- Providing training to selected personnel.

Our solutions development activities completed to date have allowed us to conclude that the adoption of certain international standards likely will result in a significant change to current accounting policies, reported financial statement amounts or disclosures. With the exception of IFRS 1, selected areas of international guidance examined to date that are relevant to our business, and the corresponding expected impact that likely will result from the application thereof, are presented below.

Accounting topic		Accounting difference and expected impact
Financial instruments provisions	contingent settlement	IAS 32, *Financial Instruments: Disclosure and Presentation* (IAS 32), provides more precise guidance than Canadian GAAP with respect to the classification of financial instruments, including share purchase warrants, with contingent settlement provisions. Under Canadian GAAP, we have classified all outstanding share purchase warrants as shareholders equity, where the instruments are reported at their grant-date fair value. Under the provisions of IAS 32, these warrants would be classified as liabilities and marked to market at each reported balance sheet date, and any changes to fair value would be recognized in the consolidated statement of operations. This treatment is similar to current US GAAP requirements, which are discussed in note 26 to our 2009 consolidated financial statements.

It should be noted that the differences shown above are not a complete list of topics that are or could become pertinent to our business. As such, as we advance our solutions development activities, we may identify other areas that could result in significant quantitative or qualitative impacts upon IFRS adoption or thereafter in comparison to currently applied Canadian GAAP.

As we continue to analyze any potential quantitative adjustments and policy decisions that need to be made upon full conversion to IFRS, we have reached some key preliminary conclusions related to the application of IFRS 1.

IFRS 1 provides authoritative guidance for use in the conversion of a set of financial statements (and interim financial reports for part of that period) from another basis of accounting to IFRS. The basic concept of IFRS 1 is that the adoption of IFRS should be applied retrospectively, meaning that an entity should present its first financial statements using IFRS as if IFRS had been applied and effective from the date of the entity s inception. However, due to the fact that full retrospective application is unlikely to be achievable in a cost-effective manner, IFRS 1 offers certain optional exemptions to first-time preparers of IFRS financial statements. Any, all or none of these exemptions may be taken.

Table of Contents

Presented below are our preliminary conclusions with respect to some key IFRS 1 optional exemptions, as applicable to our business.

Accounting topic	IFRS 1 exemption explained	Preliminary conclusion
Business combinations	IFRS 1 allows first-time adopters to elect not to restate business combinations that have occurred prior to the date of transition (January 1, 2010) in accordance with IFRS 3, *Business Combinations* (IFRS 3).	We will elect to apply this exemption and apply IFRS 3 only to any business combinations that may occur after the date of transition, without restating any prior business combinations.
Valuation of property, plant and equipment	IFRS 1 permits first-time adopters to measure selected assets at fair value and use that fair value as deemed cost of those assets in the transition date balance sheet.	We will not utilize this optional exemption and continue to use the cost model for property, plant and equipment as of the date of transition to IFRS.
Foreign currency translation adjustments	IFRS 1 permits first-time adopters to eliminate the cumulative translation adjustment (CTA) balance (a component of accumulated other comprehensive income) at the date of transition.	We will eliminate our date of transition CTA balance by adjusting our opening accumulated deficit.

Other IFRS 1 exemptions will be considered as we continue to make progress in our conversion activities.

We will continue, on a quarterly basis, to provide information regarding the timing, status and impact of the aforementioned activities and of other key elements inherent in our IFRS conversion plan.

Outlook for 2010

Perifosine

We expect to continue the development of perifosine in North America (US, Canada and Mexico) in collaboration with our partner, Keryx, and benefit from this development in order to ultimately achieve registration in other territories. The primary focus will be to advance the Phase 3 registration studies in conformity with the SPA that Keryx recently received from the FDA in multiple myeloma and refractory metastatic colon cancer. Keryx is responsible, in accordance with the terms of our license agreement, for the North American development and registration of perifosine. We have access to all corresponding data at no additional cost. In parallel with the North American development activities, we expect to seek scientific advice with the European Medicines Agency (EMA) relative to a development and regulatory pathway so as to extend the reach of perifosine to European territories. We also expect to establish a strategy that will enable us to benefit from the Asian markets and from other attractive territories. In the event that EMA requires additional trials or any additional development work prior to confirming compliance with European regulations, we will support the corresponding R&D investments as we seek additional partnerships for the corresponding territories.

AEZS-108

We expect to perform, together with cooperative groups and clinical investigators, additional studies in endometrial or ovarian cancer, as well as in new indications such as prostate cancer and bladder cancer. Based on our available financial resources and on the level of sponsorships that we successfully obtain from different organizations, we will decide on our next studies.

AEZS-130 (Solorel™)

Upon satisfactory discussions and agreement with the FDA, we expect to complete the Phase 3 program for AEZS-130 (Solorel™) as a diagnostic test for adult growth hormone deficiency and to submit a corresponding NDA to the FDA.

Table of Contents

Revenue expectations

License fee revenues are expected to decrease substantially in 2010, due to the known absence of future amortization of deferred revenues related to upfront payments already received. Additionally, excluding the impact of foreign exchange rate fluctuations, sales and royalties are expected to decrease slightly in 2010.

Cost reduction and development focus

During 2010, we expect to focus on R&D efforts vis-à-vis our later-stage compounds, including perifosine, AEZS-108 and Solorel™. Earlier-stage projects will be associated with grants, R&D credits or collaboration agreements. We do not expect to pursue any development relating to cetrorelix or ozarelix. With this focused strategy, we can expect a reduction of our R&D expenses by nearly $20.0 million in 2010, as compared to 2009.

With regard to our SG&A expenses, in light of the absence of future amortization of the royalty paid to Tulane of $3.0 million related to our agreement with sanofi and given additional cost-saving measures, we expect to reduce our costs in 2010 by approximately $5.0 million, as compared to 2009.

We expect that our cash burn should therefore be in the range of $32.0 million to $35.0 million, excluding any non-dilutive activities relating to the licensing out of our advanced products.

On March 12, 2010, we filed a Canadian short-form base shelf prospectus, as well as a registration statement on Form F-3 with the United States Securities and Exchange Commission (SEC), which were declared effective by both the Canadian authorities and the SEC, and which would permit us to issue up to $60.0 million of freely tradeable common shares and warrants to purchase common shares.

We continue to endeavour to become a specialty pharmaceutical focused on oncology and endocrinology with our own marketing activities in selected territories and seek commercial partners, in order to carry out our strategic objectives.

Financial and Other Instruments

Foreign Currency Risk

Since we operate on an international scale, we are exposed to currency risks as a result of potential exchange rate fluctuations. For the year ended December 31, 2009, we were not a party to any forward-exchange contracts, and no forward-exchange contracts were outstanding as at March 23, 2010.

Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents, restricted cash, short-term investments and accounts receivable. Cash and cash equivalents and restricted cash balances are maintained with high-credit quality financial institutions. Short-term investments have consisted of notes issued by high-credit quality corporations and institutions. Also, any accounts receivable balances due as at December 31, 2009 are insignificant, both individually and in the aggregate. Consequently, management considers the risk of non-performance related to cash and cash equivalents, restricted cash, short-term investments and accounts receivable to be minimal.

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

Related Party Transactions and Off-Balance Sheet Arrangements

We did not enter into transactions with any related parties during the year ended December 31, 2009.

As at December 31, 2009, we did not have any interests in variable interest entities or any other off-balance sheet arrangements.

Table of Contents

Item 6. Directors, Senior Management and Employees

A. Directors and senior management

The following table sets forth information about our directors and corporate officers as of March 22, 2010.

Name and Place of Residence	Position with Aeterna Zentaris
Aubut, Marcel Quebec, Canada	Director
Blake, Paul Pennsylvania, United States	Senior Vice President and Chief Medical Officer
Byorum, Martha New York, United States	Director
Dorais, José P. Quebec, Canada	Director
Engel Juergen Alzenau, Germany	President and Chief Executive Officer and Director
Ernst, Juergen Brussels, Belgium	Executive Chairman of the Board and Director
Lapalme, Pierre Quebec, Canada	Director
Laurin, Pierre Quebec, Canada	Director
Limoges, Gérard Quebec, Canada	Director
MacDonald, Pierre Quebec, Canada	Director
Martin, Gerald J. California, United States	Director
Métivier, Amélie Quebec, Canada	Assistant Secretary
Pelliccione, Nicholas New York, United States	Senior Vice President, Regulatory Affairs and Quality Assurance
Seeber, Matthias Frankfurt, Germany	Senior Vice President, Administration and Legal Affairs

Shapiro, Elliot Quebec, Canada	Corporate Secretary
Turpin, Dennis Quebec, Canada	Senior Vice President and Chief Financial Officer

Table of Contents

The following is a brief biography of each of our directors and senior officers.

Marcel Aubut has served as a director on our Board since 1996. A key figure in Canadian business and an icon in the world of sports, Marcel Aubut, O.C., O.Q., Q.C. Ad. E., has been a corporate and litigation lawyer for more than thirty years. A partner with Heenan Blaikie Aubut LLP, he is a member of the firm s National Management Committee and its Executive Committee. In 1983, Mr. Aubut founded the firm of Aubut Chabot. He was President and Chief Executive Officer of *Le Club de Hockey Les Nordiques de Québec*, as well as founding president and chief executive officer of *Parc technologique du Québec métropolitain*. Many companies have called on Mr. Aubut to be a director, including such high-profile ones as Boralex Power Income Fund, Boralex Inc., Atomic Energy Canada, Cinar, Hydro-Québec, The Laurentian Group, Investors Group of Mutual Funds, Sodic Québec Inc., International Continental Insurers Ltd, the National Hockey League Pension Society, Olybro Inc. (previously known as Olymel), TransForce Inc., La Fondation Nordiques and Purolator.

Paul Blake was appointed our Senior Vice President and Chief Medical Officer in August 2007. Prior to joining us, Dr. Blake was Chief Medical Officer of Avigenics, Inc. since January 2007. In 2005, he was Senior Vice President, Clinical Research and Regulatory Affairs at Cephalon, Inc. before being promoted to Executive Vice President, Worldwide Medical & Regulatory Operations. From 1992 to 1998, he held the position of Senior Vice President and Medical Director, Clinical Research and Development at SmithKline Beecham Pharmaceuticals (now GSK). Dr. Blake earned a medical degree from the London University, Royal Free Hospital. He was elected Fellow of the American College of Clinical Pharmacology, Fellow of the Faculty of Pharmaceutical Medicine, Royal College of Physicians in the UK, and he is a Fellow of the Royal College of Physicians in the UK.

Martha Byorum has served as a director on our Board since 2001. Ms. Byorum is currently Senior Managing Director of Stephens Cori Capital Advisors, a division of Stephens, Inc., a private investment banking firm. From 2003 to 2004, Ms. Byorum served as Chief Executive Officer of Cori Investment Advisors, LLC, which was spun off from Violy, Byorum & Partners (VB&P) in 2003. VB&P was an independent strategic advisory and investment banking firm specializing in Latin America. Prior to co-founding VB&P in 1996, Ms. Byorum had a 24-year career at Citibank, where, among other things, she served as Chief of Staff and Chief Financial Officer for Citibank s Latin American Banking Group from 1986-1990, overseeing $15 billion of loans and coordinating activities in 22 countries. She later was appointed the head of Citibank s U.S. Corporate Banking Business, and a member of the bank s Operating Committee and Customer Group with global responsibilities. Ms. Byorum is a director of the following companies which file reports pursuant to the Exchange Act: Æterna Zentaris Inc., Northwest Natural Gas Company, and M&F Worldwide Corp.

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

Juergen Engel was appointed President and Chief Executive Officer, effective September 1, 2008, after having up to such time served as our Executive Vice President and Chief Scientific Officer. He became a director on our Board in 2003. Dr. Engel has been Managing Director of AEZS Germany, the Company s principal subsidiary, since the beginning of 2001. Before that, he was in charge of all research and development activities of ASTA Medica AG. He is member of the Board of Directors of Isotechnika Pharma Inc., and member of the Advisory Board of GIG, Berlin and ElexoPharm, Saarbrücken.

Juergen Ernst was appointed Executive Chairman of the Board, effective September 1, 2008, after having served as Chairman of the Board from August 13, 2007 until April 10, 2008 and as Interim President and Chief Executive Officer from April 11, 2008 until August 31, 2008. He has served as a director on our Board since 2005. A seasoned executive with more than 20 years of pharmaceutical industry expertise mainly in the field of corporate development and pharmaceutical product marketing, Mr. Ernst was worldwide General Manager, Pharmaceutical Sector of Solvay S.A., before retiring in 2004. He is now a member of the Board of Directors of Solvay Pharmaceuticals B.V. since January 1, 2005 and a director of Pharming Group N.V., Leiden, Netherlands since April 15, 2009.

Table of Contents

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

Pierre Laurin has served as a director on our Board since 1998. Mr. Laurin has been Director of the Hautes Études Commerciales Business School in Montreal (HEC Montréal) since January 1999. He was elected Chairman of the Board of Directors of our former subsidiary, Atrium, in February 2001. From 1969 to 1982, Mr. Laurin held successively the positions of teacher and Dean with the Hautes Études Commerciales. Since then, he has acted as Vice President, General Manager, Planning and Administration for Alcan. He was also the founding President and CEO of Soccrent, a venture capital firm in Saguenay-Lac-St-Jean. He has also spent 13 years as Vice Chairman of the Board and President for Quebec of Merrill Lynch. Mr. Laurin is a member of several boards of directors of corporations including Quebecor Inc., Microcell Telecommunications Inc., Æterna Zentaris and the Fondation J.-Armand Bombardier. Mr. Laurin holds a Ph.D. degree in business from Harvard University, a Licence ès Sciences Commerciales from the Hautes Études Commerciales Business School, and Bachelor s degree ès Art from the Séminaire de Philosophie de Montréal. He also holds a Doctorate Honoris Causa from Concordia University. He is an officer of the Order of Canada, and holds L ordre du Mérite of the Republic of France.

Gérard Limoges has served as a director on our Board since 2004. Mr. Limoges served as the Deputy Chairman of Ernst & Young LLP Canada until his retirement in September 1999. After a career of 37 years with Ernst & Young, Mr. Limoges has been devoting his time as a director of a number of companies. Mr. Limoges began his career with Ernst & Young in Montreal in 1962. After graduating from the Management Faculty of Université de Montréal (HEC Montréal) in 1966, he wrote the CICA exams the same year (Honors: Governor General s Gold Medal for the highest marks in Canada and Gold Medal of the Ordre des Comptables Agréés du Québec). He became a chartered accountant in 1967 and partner of Ernst & Young in 1971. After practicing as auditor since 1962 and partner since 1971, he was appointed Managing Partner of the Montreal Office in 1979 and Chairman for Quebec in 1984 when he also joined the National Executive Committee. In 1992, he was appointed Vice-chairman of Ernst & Young Canada and the following year, Deputy Chairman of the Canadian firm. After retirement from public practice at the end of September 1999, he was appointed Trustee of the School board of Greater Montreal (1999), member of the Quebec Commission on Health Care and Social Services (2000-2001) and special advisor to the Rector of the University de Montreal and affiliate schools (2000-2003). Mr. Limoges is a board member and chairman of the audit committees of the following public companies: Æterna Zentaris Inc., Atrium Innovations Inc. (TSX), Hartco Inc. (TSX), Hart Stores Inc. (TSX) and a board member and chairman of the governance committee of Noranda Income Fund (TSX). He is also a board member of various private companies and charities. M. Limoges received the Order of Canada in 2002.

Pierre MacDonald has served as a director on our Board since November 2000. Mr. MacDonald is President and CEO of MacD Consult Inc., a management consulting firm in international finance and marketing, based in Montreal. He served as the Senior Vice President for Eastern Canada for Bank of Montreal, a position which involved the review and evaluation of the financial statements and creditworthiness of borrowers in a wide variety of industries. In December 1995, he was elected to the National Assembly of Quebec and became Minister of International Trade and Technology. He was also named Vice Chairman of the Treasury Board of the Government of Quebec. He also served as the Chairman of the Audit Committee of Teleglobe Inc. for six years. Mr. MacDonald received Bachelor of Arts, Bachelor of Commerce and Master of Commerce degrees from Laval University in Québec.

Gerald J. Martin has served as a director on our Board since 2006. Former Vice President, Corporate Licensing and Technology Alliances at Abbott Laboratories, Mr. Martin is currently Board Member of Life Sciences Information Technology Global Institute, a not-for-profit public benefit corporation chartered to identify and develop Good Informatics Practices (GIP) with a focus on the establishment of GIP in drug development. He was former Chairman of the Board of Milkahaus Laboratory based in Providence, Rhode Island, a biotechnology company specialized mainly in male health. During his career in the biopharmaceutical and pharmaceutical sectors, Mr. Martin, in addition to his general management functions, developed a strong expertise in sales and marketing, business development, as well as in clinical development.

Table of Contents

Amélie Métivier, Assistant Secretary. Ms. Métivier has served as our Assistant Secretary since April 2009. In addition, Ms. Métivier is currently a lawyer at the law firm of Ogilvy Renault LLP with a business law and transaction-oriented practice, where she has worked since 2003. She is a member of the *Barreau du Québec* since 2006, and holds an LL.B. (2004) degree from Université de Montréal.

Nicholas J. Pelliccione was appointed our Senior Vice President, Regulatory Affairs and Quality Assurance in May 2007. In previous roles, Dr. Pelliccione has been responsible for the clinical/preclinical and CMC regulatory aspects of new drugs in the oncology, anti-infectives, cytokines and cardiovascular therapy areas, leading to several approvals. He served as Senior Vice President, Regulatory and Pharmaceutical Sciences at Chugai Pharma USA from May 2005 until March 2007. Prior to his experience at Chugai, Dr. Pelliccione spent more than 15 years at Schering Plough Corporation holding positions with increasing responsibility from Manager of Regulatory Affairs, Oncology to, prior to his departure, Vice President, Global Regulatory Affairs, Chemistry, Manufacturing and Controls. Dr. Pelliccione holds a Ph.D. in Biochemistry from Mount Sinai School of Medicine, New York and a BS in Chemistry from Polytechnic University.

Matthias Seeber was appointed our Senior Vice President, Administration and Legal Affairs in December 2008. Mr. Seeber served as Managing Director of AEZS Germany since July 2003 up to his most recent appointment. Prior to that, he had assumed the position of Investor Relations Manager of Altana AG, following several years in the banking industry with Deka Investment Management and Dresdner Bank AG. Mr. Seeber is a member of the Deutsche Vereinigung für Finanzanalyse und Asset Management (DVFA/CEFA). He obtained his M.B.A. from George Mason University Graduate School of Business Administration in the United States.

Elliot Shapiro was appointed our Corporate Secretary in April 2009. In addition, Mr. Shapiro is currently a partner and a lawyer at the law firm of Ogilvy Renault LLP with a business law and transaction-oriented practice, where he has worked since 1999. He has been a member of the *Barreau du Québec* since 2000. Mr. Shapiro holds B.C.L. (1999), LL.B. (1999) and B.A. (1993) degrees from McGill University.

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

B. Compensation

A. Compensation of Outside Directors

The compensation paid to the Company s directors is designed to (i) attract and retain the most qualified people to serve on the Board and its committees, (ii) align the interests of the Company s directors with those of its shareholders, and (iii) provide appropriate compensation for the risks and responsibilities related to being an effective director. This compensation is recommended to the Board by the Corporate Governance, Nominating and Human Resources Committee (the Governance Committee). During the most recently completed financial year, the Governance Committee was composed of four (4) directors, each of whom is independent, namely Messrs. Pierre MacDonald, José P. Dorais, Juergen Ernst and Pierre Laurin. One of the members of the Governance Committee, namely Juergen Ernst, is an executive officer of the Company.

The Board has adopted a formal mandate for the Governance Committee, which is available on our website at www.aezsinc.com. The mandate of the Governance Committee provides that it is responsible for (i) assisting the Board in developing our approach to corporate governance issues, (ii) proposing new Board nominees, (iii) assessing the effectiveness of the Board and its committees, their respective chairs and individual directors and (iv) making recommendations to the Board with respect to directors compensation.

In light of prevailing economic and market conditions, as well as the cost-saving measures implemented by the Company, the Governance Committee recommended and the Board approved two sets of reductions to directors and committee members retainers and attendance fees, such reductions having taken effect as of July 1, 2009 and January 1, 2010, respectively.

We did not retain the services of any external compensation consultant in or with respect to the financial year ended December 31, 2009.

Table of Contents

Annual Retainers and Attendance Fees

Annual retainers and attendance fees are paid on a quarterly basis to the members of the Board who are not employees of the Company or its subsidiaries (Outside Directors) as described in the table below.

Type of Compensation	Annualized Compensation between Jan. 1 and June 30, 2009 (in units of home country currency)	Annualized Compensation between July 1 and Dec. 31, 2009 (in units of home country currency)	Average Annualized Total Compensation in 2009 (in units of home country currency)	Annual Compensation as of Jan. 1, 2010 (in units of home country currency)
Executive Chairman s Retainer	75,000	60,000	67,500	45,000
Vice Chairman s Retainer	25,000	20,000	22,500	15,000
Board Retainer	25,000	20,000	22,500	15,000
Board Meeting Attendance Fees	2,000 per meeting	1,500 per meeting	1,750 per meeting	1,000 per meeting
Audit Committee Chair Retainer	20,000	15,000	17,500	15,000
Audit Committee Member Retainer	5,000	4,000	4,500	4,000
Audit Committee Meeting Attendance Fees	2,000 per meeting	1,500 per meeting	1,750 per meeting	1,000 per meeting
Governance Committee Chair Retainer	15,000	12,000	13,500	12,000
Governance Committee Member Retainer	2,500	2,000	2,250	2,000
Governance Committee Meeting Attendance Fees	2,000 per meeting	1,500 per meeting	1,750 per meeting	1,000 per meeting

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

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

Table of Contents

Outstanding Option-Based Awards and Share-Based Awards

The following table shows all awards outstanding to each Outside Director up to the end of the financial year ending December 31, 2009:

	Option-based Awards					Share-based Awards		
Name	Issuance Date (mm-dd-yyyy)	Number of Securities Underlying Unexercised Options(1) (#)	Option Exercise Price (CAN$)	Option Expiration Date (mm-dd-yyyy)	Value of Unexercised In-the-money Options(2) (CAN$)	Issuance Date (mm-dd-yyyy)	Number of Shares or Units of Shares that have Not Vested (#)	Market or Payout Value of Share-based Awards that have Not Vested ($)
Marcel Aubut	12-04-2001	5,000	6.18	12-31-2011				
	12-16-2002	15,000	3.68	12-15-2012				
	12-11-2003	30,000	1.74	12-10-2013				
	12-14-2004	15,000	5.83	12-13-2014				
	12-13-2005	15,000	3.53	12-12-2015				
	01-04-2007	5,000	4.65	01-03-2017				
	12-11-2007	25,000	1.82	12-10-2017				
	12-08-2008	15,000	0.55	12-08-2018	4,500			
	12-09-2009	20,000	0.95	12-08-2019				
Martha Byorum	12-04-2001	5,000	6.18	12-31-2011				
	12-16-2002	15,000	3.68	12-15-2012				
	12-11-2003	30,000	1.74	12-10-2013				
	12-14-2004	15,000	5.83	12-13-2014				
	12-13-2005	15,000	3.53	12-12-2015				
	01-04-2007	5,000	4.65	01-03-2017				
	12-11-2007	25,000	1.82	12-10-2017				
	12-08-2008	15,000	0.55	12-08-2018	4,500			
	12-09-2009	20,000	0.95	12-08-2019				
José P. Dorais								
Juergen Ernst	02-25-2005	15,000	5.09	02-24-2015				
	12-13-2005	15,000	3.53	12-12-2015				
	01-04-2007	5,000	4.65	01-03-2017				
	12-11-2007	25,000	1.82	12-10-2017				
	11-14-2008	100,000	0.65	11-13-2018	20,000			
	12-08-2008	15,000	0.55	12-08-2018	4,500			
	12-09-2009	20,000	0.95	12-08-2019				
Pierre Lapalme	12-09-2009	20,000	0.95	12-08-2019				
Pierre Laurin	12-04-2001	5,000	6.18	12-31-2011				
	12-16-2002	24,000	3.68	12-15-2012				
	12-11-2003	30,000	1.74	12-10-2013				
	03-29-2004	3,000	6.26	03-28-2014				
	12-14-2004	15,000	5.83	12-13-2014				
	12-13-2005	15,000	3.53	12-12-2015				
	01-04-2007	5,000	4.65	01-03-2017				
	12-11-2007	25,000	1.82	12-10-2017				

	12-08-2008	15,000	0.55	12-08-2018	4,500
	12-09-2009	20,000	0.95	12-08-2019	
	12-14-2004	15,000	5.83	12-13-2014	
	12-13-2005	15,000	3.53	12-12-2015	
Gérard	01-04-2007	5,000	4.65	01-03-2017	
Limoges	12-11-2007	25,000	1.82	12-10-2017	
	12-08-2008	15,000	0.55	12-08-2018	4,500
	12-09-2009	20,000	0.95	12-08-2019	

Table of Contents

	Option-based Awards					Share-based Awards		
Name	Issuance Date (mm-dd-yyyy)	Number of Securities Underlying Unexercised Options(1) (#)	Option Exercise Price (CAN$)	Option Expiration Date (mm-dd-yyyy)	Value of Unexercised In-the-money Options(2) (CAN$)	Issuance Date (mm-dd-yyyy)	Number of Shares or Units of Shares that have Not Vested (#)	Market or Payout Value of Share-based Awards that have Not Vested ($)
Pierre MacDonald	12-04-2001	5,000	6.18	12-31-2011				
	12-16-2002	24,000	3.68	12-15-2012				
	12-11-2003	30,000	1.74	12-10-2013				
	12-14-2004	15,000	5.83	12-13-2014				
	12-13-2005	15,000	3.53	12-12-2015				
	01-04-2007	5,000	4.65	01-03-2017				
	12-11-2007	25,000	1.82	12-10-2017				
	12-08-2008	15,000	0.55	12-08-2018	4,500			
	12-09-2009	20,000	0.95	12-08-2019				
Gérald J. Martin	01-25-2006	15,000	5.04	12-12-2015				
	01-04-2007	5,000	4.65	01-03-2017				
	12-11-2007	25,000	1.82	12-10-2017				
	12-08-2008	15,000	0.55	12-08-2018	4,500			
	12-09-2009	20,000	0.95	12-08-2019				

(1) The number of securities underlying unexercised options represent all awards outstanding as at December 31, 2009.

(2) Value of unexercised in-the-money options at financial year-end is calculated based on the difference between the closing price of the common shares on the TSX on the last trading day of the fiscal year (December 31, 2009) of CAN$0.85 and the exercise price of the options, multiplied by the number of unexercised options.

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

Total Compensation of Outside Directors

The table below summarizes the total compensation earned by the Outside Directors during the financial year ended December 31, 2009 (all amounts are in US dollars):

Name	Fees earned ($) Retainer(1)	Fees earned ($) Attendance(1)	Share-based Awards ($)	Option-based Awards(2) ($)	Non-Equity Incentive Plan Compensation ($)	Pension Value ($)	All Other Compensation(3) ($)	Total ($)

Marcel Aubut	19,710	11,169	9,636		40,515
Martha Byorum	27,000	17,500	9,636	1,500	55,636
José P. Dorais	21,681	17,739			39,420
Juergen Ernst	128,043	31,924	9,636	27,760(4)	197,363
Pierre Lapalme(5)		1,314	9,636		10,950
Pierre Laurin	21,681	18,615	9,636		49,932
Gérard Limoges	35,040	20,586	9,636	3,942	69,204
Pierre MacDonald	55,188	21,681	9,636	2,628	89,133
Gerald J. Martin	22,500	14,750	9,636		46,886

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

(2) The value of option-based awards represents the closing price of the common shares on the TSX at the date of grant (CAN$0.95, equivalent to US$0.83) for options granted on December 9, 2009 multiplied by the Black-Scholes factor as at such date (57.895% for options granted on December 9, 2009) and the number of stock options granted in 2009.

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

(4) Excludes a bonus of 125,000 paid to Mr. Ernst in 2009 in his prior capacity as Interim President and CEO in connection with the entering into of the commercial agreement for cetrorelix with sanofi-aventis in March 2009.

(5) Pierre Lapalme was appointed to the Board on December 8, 2009.

Table of Contents

During the financial year ended December 31, 2009, the Company paid an aggregate amount of $521,951 to all of its Outside Directors for services rendered in their capacity as directors, excluding reimbursement of out-of-pocket expenses and the value of option-based awards granted in 2009. Outside Directors are paid in their home country currency and are reimbursed for travel and other out-of-pocket expenses incurred while attending Board or committee meetings.

B. Compensation of Executive Officers

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

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

Thus, the Governance Committee recommends the appointment of senior officers, including the terms and conditions of their appointment and termination, and reviews the evaluation of the performance of our senior officers, including recommending their compensation. The Board, which includes the members of the Governance Committee, reviews the Chief Executive Officer s corporate goals and objectives and evaluates his performance and compensation in light of such goals and objectives.

Compensation Discussion & Analysis

Compensation Philosophy and Objectives

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

- providing the opportunity for an executive to earn compensation that is competitive with the compensation received by executives employed by a group of comparable North American companies;

- providing executives with an equity-based incentive plan, namely a stock option plan;

- aligning employee compensation with company corporate objectives; and

- attracting and retaining highly qualified individuals in key positions.

Benchmarking

In order to attain our objectives of providing market competitive compensation opportunities, our executive compensation plan, based on a study provided by AON Corporation (and updated annually), is benchmarked against market compensation data gathered from organizations of comparable size and other companies with which we compete for executive talent (the Reference Group). An overview of the characteristics of the Reference Group is provided in the following table:

(In millions of US$)

	Æterna Zentaris	**Survey Reference Group**
Location	North America and Europe	North America
Industries	Biopharmaceutical	Biopharmaceutical
Revenues		
Last fiscal year	38.48(1)	37.6(2)
Market Capitalization		
As at October 30, 2009	64.35	148.69
Net Loss		
Last fiscal year	59.82(1)	53.13(2)

(1) For the year ended December 31, 2008.

(2) The Reference Group for the financial year ended December 31, 2009 was selected in October 2009 and these data are based on their most recently completed fiscal year at such time.

Table of Contents

The Reference Group used in respect of the financial year ended December 31, 2009 was composed of the following companies: Acadia Pharmaceuticals Inc.; Acorda Therapeutics Inc.; Array Biopharma Inc.; Caraco Pharmaceutical Labs; BioSanté Pharmaceuticals, Inc.; Cell Therapeutics Inc.; Enzon Pharmaceuticals Inc.; Genomic Health Inc.; Ista Pharmaceuticals Inc.; Ligand Pharmaceuticals; MDRNA, Inc.; Neurocrine Biosciences Inc.; Nps Pharmaceuticals Inc.; Salix Pharmaceuticals Ltd; Savient Pharmaceuticals Inc.; and Xoma Ltd.

Positioning

The Company s compensation policy is for executive compensation to be generally aligned with the 50th percentile of the Reference Group. The Governance Committee uses discretion and judgment when determining compensation levels as they apply to a specific executive officer. Individual compensation may be positioned above or below median, based on individual experience and performance or other criteria deemed important by the Governance Committee. The total cash target payment for our executive officers generally falls within the market 50th percentile competitive range.

Compensation Elements

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

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

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

(i) base salary;

(ii) non-equity incentives consisting of a cash bonus linked to both individual and corporate performance;

(iii) long-term compensation consisting of our stock option plan established for the benefit of our directors, executive officers and employees (the Stock Option Plan); and

(iv) other elements of compensation consisting of benefits, perquisites and retirement benefits.

Base Salary

Salaries of our executive officers are established based on a comparison with competitive benchmark positions. The starting point to determine executive base salaries is the median of executive salaries in the Reference Group.

In determining individual base salaries, the Governance Committee takes into consideration individual circumstances that may include the scope of an executive s position, the executive s relevant competencies or experience and retention risk. The Governance Committee also takes into consideration the fulfillment of our corporate objectives as well as the individual performance of the executive.

Short-Term Non-Equity Incentive Compensation

The short-term non-equity incentive compensation plan sets out the allocation of incentive awards based on the financial results and the advancement of our product development and strategic objectives. These objectives are set at the beginning of each financial year as part of the annual review of corporate strategies.

In the case of executive officers, a program is designed to maximize both corporate and individual performance by establishing specific operational and financial goals and to provide financial incentives to executive officers based on their level of attainment of these goals. The granting of cash incentives requires the approval of both the Governance Committee and the Board and is based upon an assessment of each individual s performance, as well as the performance of the Company.

Table of Contents

For the financial year ended December 31, 2009, the Governance Committee recommended, and the Board approved, in light of prevailing economic and market conditions, as well as the cost-saving measures implemented by the Company, that no cash bonuses be paid in respect of the 2009 year, and that there be no increase in 2010 from the 2009 annual base salaries and potential bonus amounts for all executive officers. Instead, in partial replacement of their 2009 annual cash bonuses, the Governance Committee approved the granting of additional stock options to executives according to the following formula: $1 (CAN or US) or 1 = 1 stock option, as adjusted based on each senior executive s individual performance. Stock options granted in December 2009 to the Company s senior executives were granted with an accelerated vesting schedule (18 months instead of three years, with the first one-third of the options vesting six months after the date of grant), in order to allow these grants to serve their purpose as partial compensation for the non-payment of cash bonuses. See Summary of the Stock Option Plan below for more details on the Stock Option Plan.

The stock options granted to our executive officers represented 95% of the target payout established by the Governance Committee.

Long-term Equity Compensation Plan of Executive Officers

The long-term component of the compensation of the Company s executive officers is based exclusively on the Stock Option Plan, which permits the award of a number of options that varies in accordance with the contribution of the officers and their responsibilities. To encourage retention and focus management on developing and successfully implementing the continuing growth strategy of the Company, stock options generally vest over a period of three years, however, as mentioned in the section above, the vesting schedule for the options granted to senior executives in December 2009 was accelerated from three years to 18 months. Stock options are usually granted to executive officers in December of each year.

Summary of the Stock Option Plan

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

Individuals eligible to participate under the Stock Option Plan will be determined by either the Board or the Governance Committee.

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

be.

Unless the Board or the Governance Committee decides otherwise, option holders cease to be entitled to exercise their options under the Stock Option Plan: (i) immediately, in the event an option holder who is an officer or employee resigns or voluntarily leaves his or her employment with the Company or one of its subsidiaries or the employment with the Company or one of its subsidiaries is terminated with cause and, in the case of an optionee who is a non-employee director of the Company or one of its subsidiaries, the date on which such optionee ceases to be a member of the relevant board of directors; (ii) six months following the date on which employment is terminated as a result of the death of an option holder who is an officer or employee and, in the case of an optionee who is a non-employee director of the Company or one of its subsidiaries, six months following the date on which such optionee ceases to be a member of the relevant board of directors by reason of death; (iii) 30 days following the date on which an option holder s employment with the Company or any of its subsidiaries is terminated for a reason other than those mentioned in (i) or (ii) above including, without limitation, upon the disability, long-term illness, retirement or early retirement of the option holder; and (iv) where the option holder is a service supplier, 30 days following the date on which such option holder ceases to act as such, for any cause or reason (each, an Early Expiry Date).

Table of Contents

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

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

In the event that, at any time, an offer to purchase is made to holders of all our common shares, notice of such offer shall be given by the Company to each optionee and all unexercised options will become exercisable immediately at their respective exercise prices, but only to the extent necessary to enable optionees to tender their common shares in response to such offer.

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

- any amendment to Section 3.2 of the Stock Option Plan (which sets forth the limit on the number of options that may be granted to insiders) that would have the effect of permitting, without having to obtain shareholder approval on a disinterested vote at a duly convened shareholders meeting, the grant of any option(s) under the Stock Option Plan otherwise prohibited by Section 3.2;

- any amendment to the number of securities issuable under the Stock Option Plan (except for certain permitted adjustments, such as in the case of stock splits, consolidations or reclassifications);

- any amendment which would permit any option granted under the Stock Option Plan to be transferable or assignable other than by will or in accordance with the applicable laws of estates and succession;

- the addition of a cashless exercise feature, payable in cash or securities, which does not provide for a full deduction of the number of underlying securities from the Stock Option Plan reserve;

- the addition of a deferred or restricted share unit component or any other provision which results in employees receiving securities while no cash consideration is received by the Company;

- with respect to any option holder whether or not such option holder is an insider and except in respect of certain permitted adjustments, such as in the case of stock splits, consolidations or reclassifications:

- any reduction in the exercise price of any option after the option has been granted, or

- any cancellation of an option and the re-grant of that option under different terms;

- any extension to the term of an option beyond its Outside Expiry Date to an option holder who is an insider (except for extensions made in the context of a blackout period);

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

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

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

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

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

- amendments regarding any vesting period of an option;

Table of Contents

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

- adjustments to the number of issuable common shares underlying, or the exercise price of, outstanding options resulting from a split or a consolidation of the common shares, a reclassification, the payment of a stock dividend, the payment of a special cash or non-cash distribution to our shareholders on a pro rata basis provided such distribution is approved by our shareholders in accordance with applicable law, a recapitalization, a reorganization or any other event which necessitates an equitable adjustment to the outstanding options in proportion with corresponding adjustments made to all outstanding common shares;

- discontinuing or terminating the Stock Option Plan; and

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

The maximum number of common shares issuable under the Stock Option Plan is fixed at 11.4% of the issued and outstanding common shares at any given time, which, as at March 22, 2010, represented 7,192,255 common shares. There are currently 6,213,922 options outstanding under the Stock Option Plan representing 9.8% of all issued and outstanding common shares. Under the Stock Option Plan, (i) the number of securities issued to insiders, at any time, or issuable within any one-year period, under all of the Company s security-based compensation arrangements, cannot exceed 10% of the Company s issued and outstanding securities and (ii) no single option holder may hold options to purchase, from time to time, more than 5% of the Company s issued and outstanding common shares.

Outstanding Option-Based Awards and Share-Based Awards

The following table shows all awards outstanding to each of our Company s President and Chief Executive Officer, the Chief Financial Officer and our three (3) other most highly compensated executive officers of the Company during the most recently completed financial year (collectively, the Named Executive Officers) as of December 31, 2009:

	Option-based Awards					Share-based Awards		
Name	Issuance Date (mm-dd-yyyy)	Number of Securities Underlying Unexercised Options(1) (#)	Option Exercise Price (CAN$)	Option Expiration Date (mm-dd-yyyy)	Value of Unexercised In-the-money Options(2) (CAN$)	Issuance Date	Number of Shares or Units of shares that have Not Vested (#)	Market or Payout Value of Share-based Awards that have Not Vested ($)
Engel, Juergen	02-20-2003	60,000	2.43	12-31-2012				
	12-11-2003	60,000	1.74	12-10-2013				

	12-14-2004	100,000	5.83	12-13-2014	
	12-13-2005	50,000	3.53	12-12-2015	
	01-04-2007	50,000	4.65	01-03-2017	
	12-11-2007	50,000	1.82	12-10-2017	
	11-14-2008	200,000	0.65	11-13-2018	40,000
	12-08-2008	75,000	0.55	12-08-2018	22,500
	12-09-2009	165,000	0.95	12-08-2010	
Turpin, Dennis	12-04-2001	30,000	6.18	12-04-2011	
	11-01-2002	90,000	3.94	10-31-2012	
	12-16-2002	50,000	3.68	12-15-2012	
	12-11-2003	60,000	1.74	12-10-2013	
	12-14-2004	90,000	5.83	12-13-2014	
	12-13-2005	50,000	3.53	12-12-2015	
	01-04-2007	50,000	4.65	01-03-2017	
	12-11-2007	50,000	1.82	12-10-2017	
	12-09-2009	115,000	0.95	12-08-2010	
Blake, Paul	07-27-2007	45,000	3.05(3)	07-26-2017	
	12-11-2007	50,000	1.82(3)	12-10-2017	
	12-08-2008	50,000	0.55	12-08-2018	15,000

Table of Contents

	Option-based Awards					Share-based Awards		
Name	Issuance Date (mm-dd-yyyy)	Number of Securities Underlying Unexercised Options(1) (#)	Option Exercise Price (CAN$)	Option Expiration Date (mm-dd-yyyy)	Value of Unexercised In-the-money Options(2) (CAN$)	Issuance Date	Number of Shares or Units of shares that have Not Vested (#)	Market or Payout Value of Share-based Awards that have Not Vested ($)
	12-09-2009	110,000	0.95	12-08-2010				
Seeber, Matthias	02-20-203	15,000	2.43	12-31-2012				
	12-11-2003	45,000	1.74	12-10-2013				
	12-14-2004	50,000	5.83	12-13-2014				
	12-13-2005	40,000	3.53	12-12-2015				
	01-04-2007	30,000	4.65	01-03-2017				
	12-11-2007	25,000	1.82	12-10-2017				
	12-08-2008	30,000	0.55	12-08-2018	9,000			
	12-09-2009	115,000	0.95	12-08-2010				
Pelliccione, Nicholas J.	05-07-2007	25,000	3.96(3)	05-06-2017				
	12-11-2007	50,000	1.82(3)	12-10-2017				
	12-08-2008	20,000	0.55	12-08-2018	6,000			
	12-09-2009	60,000	0.95	12-08-2010				

(1) The number of securities underlying unexercised options represents all awards outstanding at December 31, 2009.

(2) Value of unexercised in-the-money options at financial year-end is calculated based on the difference between the closing price of the common shares on the TSX on the last trading day of the year (December 31, 2009) of CAN$0.85 and the exercise price of the options, multiplied by the number of unexercised options.

(3) These amounts are expressed in US dollars.

Incentive plan awards - Value vested or earned during the year

The following table shows the incentive plan awards value vested or earned for each Named Executive Officer for the financial year ending December 31, 2009.

Name	Option-based awards - Value vested during the year(1) (CAN$)	Share-based awards - Value vested during the year (CAN$)	Non-equity incentive plan compensation - Value earned during the year (CAN$)
Engel, Juergen	40,000		
Turpin, Dennis			
Blake, Paul	6,667		
Seeber, Matthias	4,000		

Pelliccione, Nicholas J.	2,667

(1) The amount represents the aggregate dollar value that would have been realized if the options had been exercised on the vesting date, based on the difference between the closing price of the common shares on the TSX and the exercise price on such vesting date.

Other Forms of Compensation

Benefits and Perquisites

Our executive employee benefits program also includes life, medical, dental and disability insurance. Perquisites consist of a car allowance and human resources counselling. These benefits and perquisites are designed to be competitive overall with equivalent positions in comparable North American organizations in the life sciences industry.

Table of Contents

Pension Plan

One of our Named Executive Officers, namely Dr. Juergen Engel, the President and Chief Executive Officer, participates in a non-contributory defined benefit pension plan. Benefits payable under this plan correspond to 40% of the executive officer s average salary of the last twelve months during the first five working years after initial participation in this plan and increase by 0.4% for each additional year of employment.

The normal retirement age is 65 years, but early retirement in accordance with Germany s social pension insurance is possible without reduction (or clawback) of the benefit. The following table shows total annual pension benefits payable to Dr. Engel pursuant to this plan. Upon the death of a participant, the surviving spouse and/or children of the participant will be entitled to a benefit equal to 60% of the benefits to which such participant was entitled. All benefits payable under this plan are in addition to German governmental social security benefits. Only base salary is taken into consideration in calculating pension benefits.

As at December 31, 2009, Dr. Engel had 33 years and 4 months of credited service in the aforementioned non-contributory defined benefit pension plan.

Defined Benefit Plans Table

Name	Number of years of credited service (#)	Annual benefits payable At year end ($)(1)	Annual benefits payable At age 65 ($)(1)	Accrued obligation at start of year ($)(1)	Compensatory change ($)(1)	Non-compensatory change ($)(1)	Accrued obligation at year end ($)(1)
Juergen Engel	33.33	218,217	218,501	2,998,772	431,110	113,769	3,543,651

(1) All amounts in the above table have been converted from euros to US$ based on the exchange rate on December 31, 2009, which was 1.000 = US$1.4272.

Employer Contribution to Employees Retirement Plan

In 2008, the Board approved a plan whereby we would contribute to our employees retirement plans both in Canada (RRSP) and the United States (401(k)) to the extent of 50% of the employee s contribution up to a maximum of $7,750 annually for employees under 50 years old and $10,250 for those over 50 years old. This plan was implemented in 2008. Employees based in Frankfurt, Germany already benefit from certain employer contributions into the employees pension funds (DUPK/RUK). Our executive officers, including the Named Executive Officers, are eligible to participate in the aforementioned employer-contribution plans to the same extent and in the same manner as all of our other employees.

Summary Compensation Table

The Summary Compensation Table set forth below shows compensation information for the Named Executive Officers for services rendered in all capacities during the financial year ended December 31, 2009 and 2008. Our executive officers are generally paid in their home country s currency. All amounts in the Summary Compensation Table below are in US dollars and have been converted from the Named Executive Officers home country currency to US dollars based on the following average exchange rates for the financial year ended December 31, 2009: 1.00 = US$1.388; and CAN$1.00 = US$0.876; and for the financial year ended December 31, 2008: 1.00 = US$1.464; and CAN$1.00 = US$0.937.

Table of Contents

SUMMARY COMPENSATION TABLE

Name and principal position	Years	Salary ($)	Share based awards ($)	Option based awards(1) ($)	Non-equity incentive plan compensation: Annual incentive plan ($)	Non-equity incentive plan compensation: Long-term incentive plans ($)	Pension value ($)	All other compensation(2) ($)	Total compensation ($)
Juergen Engel	2009	458,040		79,497			431,110	3,209(3)	971,856
President and CEO	2008	405,925(4)		67,777	248,093(5)(6)		473,277	3,366(3)	1,198,438
Dennis Turpin	2009	284,700		55,407					340,107
Senior Vice President and CFO	2008	317,352			30,000(6)			95,780(7)	443,132
Paul Blake	2009	366,000		52,998				10,250(7)	429,248
Senior Vice President and Chief Medical Officer	2008	355,250		10,788	135,000(6)			10,250(8)	511,288
Matthias Seeber	2009	306,748		55,407				54,300(3)	416,455
Senior Vice President, Administration and Legal Affairs	2008	307,372		6,473	120,755(5)			61,881(3)	496,481
Nicholas J. Pelliccione	2009	317,300		28,908				8,250(7)	354,458
Senior Vice President Regulatory Affairs and Quality Assurance	2008	317,300		4,315	70,000(6)			10,250(8)	401,865

(1) The value of the option-based awards represents the closing price of the common shares on the TSX at the date of grant (CAN$0.95 equivalent to US$0.83) for options granted on December 9, 2009 multiplied by the Black-Scholes factor as at such date (57.895% for options granted on December 9, 2009) and the number of stock options granted in 2009.

(2) All Other Compensation represents perquisites and other personal benefits which, in the aggregate, amount to $50,000 or more, or are equivalent to 10% or more of a Named Executive Officer s total salary for the financial year ended December 31, 2009. The type and amount of each perquisite, the value of which exceeds 25% of the total value of perquisites, is separately disclosed for each Named Executive Officer, if applicable.

(3) Represents DUPK/RUK (Germany) employer contributions to Dr. Engel s and Mr. Seeber s retirement savings plans. Although the Company does not generally view employer contributions to employees and executives retirement savings plans as perquisites or benefits since such contributions are available to all employees, it has decided to voluntarily disclose the amounts of such employer contributions to the Named Executive Officers in the above table in order to provide fulsome disclosure.

(4) Represents Dr. Engel s annual base salary as Executive Vice President and Chief Scientific Officer that was paid to him up until September 1, 2008 plus an adjusted annual base salary following his appointment as President and CEO between September 1 and December 31, 2008.

(5) Includes special bonuses paid to Dr. Engel and Mr. Seeber in connection with the negotiation, management and successful completion of two important transactions in 2008, namely the monetization of Cetrotide® and the sale of all rights related to Impavido®.

(6) Includes a one time cash payment of $10,000 that was awarded in March 2008 to the Named Executive Officers with the exception of Mr. Seeber. This award, to have been used solely to purchase the Company s common shares on the NASDAQ, was granted by the Board in order to encourage share ownership of the Company s common shares by senior management.

(7) Represents $91,765 of relocation costs and $4,015 in employer s contribution to Mr. Turpin s 401(k) retirement savings plan. Although the Company does not generally view employer contributions to employees and executives retirement savings plans as perquisites or benefits since such contributions are available to all employees, it has decided to voluntarily disclose the amounts of such employer contributions to the Named Executive Officers in the above table in order to provide fulsome disclosure.

(8) Represents 401(k) employer contributions to Messrs. Blake s and Pelliccione s retirement savings plans. Although the Company does not generally view employer contributions to employees and executives retirement savings plans as perquisites or benefits since such contributions are available to all employees, it has decided to voluntarily disclose the amounts of such employer contributions to the Named Executive Officers in the above table in order to provide fulsome disclosure.

Compensation of the Chief Executive Officer

The compensation of the President and Chief Executive Officer is governed by the Company s executive compensation policy described in section entitled, Compensation of Executive Officers , under Item 6 and the President and Chief Executive Officer participates together with the other Named Executive Officers in all of our incentive plans.

Table of Contents

Dr. Engel s total earned salary for 2009 was $458,040, which places him approximately 5.1% below the 50th percentile in relation to the companies in the Reference Group.

The Governance Committee recommended, and the Board approved, in light of prevailing economic and market conditions, as well as the cost-saving measures implemented by the Company, that no annual cash bonus be paid in respect of the 2009 year. Instead, in partial replacement of the 2009 annual cash bonus, the Governance Committee approved the granting of additional stock options to the CEO based on his individual performance. The terms of such grant provide for accelerated vesting conditions, in order to allow these grants to serve their purpose as a partial replacement for annual bonuses. See Summary of the Stock Option Plan on page 87 for more details on the Stock Option Plan.

The President and Chief Executive Officer was awarded a grant of 165,000 stock options on December 9, 2009 (at an exercise price of CAN$0.95) for his performance in the context of the Company s objectives in 2009.

C. Board practices

Our Articles provide that our Board shall be composed of a minimum of five and a maximum of fifteen directors. Directors are elected annually by our shareholders, but the directors may from time to time appoint one or more directors, provided that the total number of directors so appointed does not exceed one-third of the number of directors elected at the last annual meeting of shareholders. Each elected director will remain in office until termination of the next annual meeting of the shareholders or until his or her successor is duly elected or appointed, unless his or her post is vacated earlier.

Under the terms of contractual agreements among the Company, SGF Santé Inc. and Dr. Éric Dupont concerning, among other matters, the election of directors, provided that SGF Santé Inc. holds at least 5% of the Company s issued and outstanding voting shares, (a) the Companywill propose for election as a director of the Company, at each annual meeting of the shareholders (i) one candidate designated by SGF Santé Inc., provided that the candidate receives a favourable recommendation from the Governance Committee, and (ii) one candidate jointly designated by SGF Santé Inc. and Dr. Éric Dupont, (b) the Companywill solicit proxies from its shareholders for the election of such candidates as directors of the Company, and (c) Dr. Éric Dupont will exercise the voting rights attached to his common shares, on any resolution relating to the election of directors to be submitted to the beneficial holders of any participating shares of the Company, in favour of the election of the candidates so designated. Similarly, under the terms of an agreement among the Company, SGF Santé Inc. and Fonds de solidarité des travailleurs du Québec (F.T.Q.). (F.T.Q.) concerning the election of directors, provided that SGF Santé Inc. and F.T.Q. together hold at least 5% of the Company s issued and outstanding voting shares, (a) the Companywill propose for election as a director of the Company, at each annual meeting of the shareholders, one candidate jointly designated by SGF Santé Inc. and F.T.Q., provided that the candidate receives a favourable recommendation from the Governance Committee and (b) the Companywill solicit proxies from its shareholders for the election of such candidate as a director of the Company.

Committees of the Board of Directors

Audit Committee

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

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

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

The current members of the Audit Committee are Martha Byorum, Gérard Limoges and Pierre MacDonald.

Table of Contents

Governance Committee

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

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

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

The current members of the Governance Committee are Juergen Ernst, José P. Dorais, Pierre Laurin and Pierre MacDonald.

D. Employees

As of March 1, 2010, we had a total of 99 Full Time Equivalents (FTE) (as compared to 109 at March 1, 2009 and 131 at March 1, 2008), of which 82 are based in Frankfurt, Germany (excluding the effects of short hours as explained below), 6 in New Jersey, United States, and 11 in Quebec City, Canada. Of these, 61 are involved in discovery, preclinical, clinical and pharmaceutical development, 11 are involved in regulatory affairs, quality assurance and intellectual property, and 27 are involved in business operations, communications, finance, information technology, human resources, project management and legal affairs. Following the negative results of our Phase 3 efficacy studies for Cetrorelix in BPH in 2009, we applied for and were granted approval by the German Ministry of Labor to implement the so-called Kurzarbeit (short hours) regime for a one-year term. Short hours is a system offered by the German Ministry of Labor for companies undergoing economic distress as a result of an unexpected event which causes temporary overcapacity in the work force. Under the system, we are allowed to selectively reduce the working hours of our employees thereby reducing the labor costs for the company accordingly. The employees affected by short hours are compensated for the salary shortfall by the German Government. As of March 1, 2010, and including the effects of short hours , the equivalent number of FTE is further reduced to 68 FTE for Frankfurt, Germany and to 85 for the Company as a whole. The initial approval by the German Ministry of Labor is valid until August 2010 allowing for a follow-up application of up to a maximum of one additional year.

We have agreements with all of our employees covering confidentiality and loyalty, non-competition, and assignment to the Company of all intellectual property rights developed during the employment period. Some of our employees based in Frankfurt, Germany are represented by the Chemical Union of Germany. As such, their compensation is largely driven by the outcome of the negotiations between the Chemical Union and the Association of Employers for the chemical industry which is then binding for all German companies in the industry. The current collective bargaining agreement (*Tarifvertrag*) that applies to all tariff-employees of AEZS Germany expires on March 31, 2010. We have never experienced a work stoppage and we believe that relations with our employees as well as with the works council representing our German employees are generally good.

Table of Contents

E. Share ownership

The information in the table below is provided as of March 22, 2010:

Name	No. of common shares owned or held	Percent(1)	No. of stock options Held(2)	No. of currently exercisable options
Marcel Aubut	112,500	*	145,000	110,000
Paul Blake	60,720	*	255,000	80,001
Martha Byorum	12,000	*	145,000	110,000
José P. Dorais		*		
Juergen Engel	79,779	*	810,000	445,001
Juergen Ernst	58,850	*	195,000	93,334
Pierre Lapalme			20,000	
Pierre Laurin	50,200	*	157,000	122,000
Gérard Limoges	9,000	*	95,000	60,000
Pierre MacDonald	26,500	*	154,000	119,000
Gerald J. Martin	14,000	*	80,000	45,000
Nicholas J. Pelliccione	25,000	*	155,000	56,668
Matthias Seeber		*	350,000	206,667
Dennis Turpin	13,250	*	585,000	453,334
All of our directors and senior officers as a group	461,799	0.73	3,146,000	1,901,005

* Less than 1%

(1) Based on 63,089,954 common shares outstanding as of March 22, 2010.

(2) For information regarding option expiration dates and exercise price refer to the tables included under item 6.B.

Item 7. Major Shareholders and Related Party Transactions

A. Major shareholders

We are not directly or indirectly owned or controlled by another corporation or by any foreign government.

Based on filings with the Securities and Exchange Commission and the Canadian securities regulatory authorities, as of March 22, 2010, set out below are the only persons/entities who beneficially owned, directly or indirectly, or exercised control or direction over our common shares carrying more than 5% of the voting rights attached to all our common shares. As used in the table below, beneficial ownership means sole or shared power to vote or direct the voting of the security, or the sole or shared investment power with respect to a security (i.e., the power to dispose, or direct a disposition, of a security). A person is deemed at any date to have beneficial ownership of any security that the person has a right to acquire within 60 days. More than one person may be deemed to have beneficial ownership of the same group of securities.

Name of shareholder	Common Shares (#)	Total Percentage of Voting Rights (%)
Fonds de solidarité des travailleurs du Québec (F.T.Q.)	8,161,569	12.94
SGF Santé Inc.	8,810,878	13.97

None of the shareholders set out above has different voting rights from the other shareholders, although F.T.Q. and SGF do have certain Board nomination rights as described under Item 6.C above, Directors, Senior Management and Employees Board Practices .

Table of Contents

United States Shareholders

As of December 31, 2009, there were a total of 236 holders of record of our common shares, of which 7 were registered with addresses in the United States holding in the aggregate approximately 17.45% of our outstanding common shares. We believe that the number of beneficial owners of our common shares is substantially greater than the number of record holders, because a large portion of our common shares are held in broker street names.

B. Related party transactions

None

C. Interests of experts and counsel

Not applicable.

Item 8. Financial Information

A. Consolidated statements and other financial information

The financial statements filed as part of this annual report are presented under Item 18. Financial Statements.

Valuation and qualifying accounts are as follows (in thousands of US dollars):

Valuation allowance on future income tax assets

	Years ended December 31,		
	2009	**2008**	**2007**
Balance - Beginning of year	$ 36,581	$ 23,289	$ 13,337
Change in valuation allowance	9,959	17,554	6,963

Impact of foreign exchange rate changes	3,810	(4,262)	2,989
Balance - End of year	$ 50,350	$ 36,581	$ 23,289

Export Sales

Export and domestic sales in thousands of US dollars and as percentage of total sales as follows:

	Years ended December 31,					
	2009		2008		2007	
Export Sales	$ 63,237	100.00%	$ 38,145	99.13%	$ 41,668	99.05%
Domestic Sales		0.00%	333	0.87%	400	0.95%
	$ 63,237	100.00%	$ 38,478	100.00%	$ 42,068	100.00%

Dividend Policy

Since our incorporation, we have not paid any dividends, and we do not anticipate paying any dividends in the foreseeable future.

B. Significant changes

No significant changes occurred since the date of our annual consolidated financial statements included elsewhere in this annual report.

Table of Contents

Item 9. The Offering and Listing

A. Offer and listing details

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

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 of our common shares on NASDAQ and on the TSX:

	NASDAQ (US$)		TSX (CAN$)	
	High	**Low**	**High**	**Low**
2009	2.83	0.46	3.11	0.57
2008	1.80	0.40	1.85	0.44
2007	4.36	1.46	5.10	1.47
2006	7.46	4.05	8.60	4.68
2005	6.36	4.18	7.65	4.92
2008				
Fourth quarter	0.60	0.40	0.72	0.44
Third quarter	1.36	0.59	1.42	0.61
Second quarter	1.80	1.00	1.85	1.01
First quarter	1.73	0.77	1.78	0.75
2009				
Fourth quarter	1.25	0.80	1.40	0.83
Third quarter	2.83	0.89	3.11	0.97
Second quarter	2.35	0.89	2.63	1.06
First quarter	0.97	0.46	1.25	0.57
Last six months				
Feb-10	0.87	0.81	0.91	0.86
Jan-10	0.93	0.80	0.99	0.83
Dec-09	1.12	0.80	1.17	0.83
Nov-09	1.10	0.98	1.17	1.05
Oct-09	1.25	0.99	1.40	1.07
Sept-09	1.38	0.89	1.46	0.98

B. Plan of distribution

Not applicable.

C. Markets

Our common shares are listed and posted for trading on the TSX under the symbol AEZ and are quoted on the NASDAQ under the symbol AEZS. On January 21, 2010, we announced that we had received a letter from the Listing Qualifications Department of the Nasdaq Stock Market regarding the failure by the Company to comply with NASDAQ s minimum closing bid price requirements. In accordance with NASDAQ Listing Rule 5810(c)(3)(a), we are provided a grace period of 180 calendar days, or until July 20, 2010, to regain compliance with this requirement. If we fail to meet any of NASDAQ s continued listing requirements and NASDAQ attempts to enforce compliance with its rules, our common shares may be delisted from NASDAQ. If our shares were delisted from TSX or NASDAQ, investors may have difficulty in disposing of our common shares held by them.

D. Selling shareholders

Not applicable.

Table of Contents

E. Dilution

Not applicable.

F. Expenses of the issuer

Not applicable.

Item 10. Additional Information

A. Share capital

Not applicable.

B. Memorandum and articles of association

The Company is governed by its restated articles of incorporation (the Restated Articles of Incorporation) under the *Canada Business Corporations Act* (the CBCA) and by its bylaws (the bylaws). The Company s Restated Articles of Incorporation are on file with the Corporations Directorate of Industry Canada under Corporation Number 264271-9. The Restated Articles of Incorporation do not include a stated purpose and do not place any restrictions on the business that the Company may carry on.

Inspection Rights of Shareholders

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

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

Directors

The minimum number of directors of the Company is five and the maximum number is fifteen. In accordance with the Company s bylaws and the CBCA, a majority of its directors must be residents of Canada. In order to serve as a director, a person must be a natural person at least 18 years of age, of sound mind, not bankrupt, and must not be prohibited by any court from holding the office of director. For as long as the Company is a company that publicly distributes its securities, at least two-thirds of its directors must not be officers or employees of the Company or its subsidiaries. None of the Restated Articles of Incorporation, the bylaws and the CBCA impose any mandatory retirement requirements for directors.

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

Under the Company s bylaws and the Restated Articles of Incorporation, a director of the Company need not be a shareholder.

Table of Contents

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

The Company s bylaws provide that a director shall promptly disclose to the Company any interest he or she has in any undertaking or association that is likely to place him or her in a situation of conflict of interest, as well as the rights he or she may assert against the Company, indicating, should such be the case, the nature and value thereof. Likewise, the CBCA and the Company s bylaws provide that a director who is a party to, or who is a director or officer of, or has a material interest in, any person who is a party to a material contract or transaction or proposed material contract or transaction with the Company must disclose to the Company the nature and extent of his or her interest at the time and in the manner provided by the CBCA, or request that same be entered in the minutes of the meetings of the Board, even if such contract, in connection with the normal business activity of the Company, does not require the approval of either the directors or the shareholders. At the request of the president or any director, the director placed in a situation of conflict of interest must leave the meeting while the Board discusses the matter. The CBCA and the Company s bylaws prohibit such a director from voting on any resolution to approve the contract or transaction unless the contract or transaction:

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

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

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

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

In addition, the Company s bylaws provide that the Board may:

- subject to the provisions of the Company s Restated Articles of Incorporation, accept subscriptions, allot, issue all or part of the unissued shares of the Company, grant options in respect of such shares or otherwise dispose thereof to such persons, on such terms and conditions and for such consideration and in such manner not contrary to the CBCA or the Restated Articles of Incorporation of the Company as the directors think fit; and

- from time to time as it may deem advisable and to the extent permitted by the CBCA, declare and pay to the shareholders, according to their rights, dividends in money or property or in the form of shares of the Company.

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

Table of Contents

Pursuant to the Company s bylaws, the directors of the Company manage and administer the business and affairs of the Company and exercise all such powers and authority as the Company is authorized to exercise pursuant to the CBCA, the Restated Articles of Incorporation and the bylaws. The general duties of a director or officer of the Company under the CBCA are 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. Any breach of these duties may lead to liability to the Company and its shareholders for breach of fiduciary duty. In addition, a breach of certain provisions of the CBCA, including the improper payment of dividends or the improper purchase or redemption of shares, will render the directors who authorized such action liable to account to the Company for any amounts improperly paid or distributed.

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

Subject to the limitations provided by the CBCA, the Company must indemnify a director or an officer of the Company, a former director or officer of the Company or a person who acts or acted at the Company s request as a director or officer of a body corporate of which the Company 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 him or her in respect of any civil, criminal or administrative action or proceeding to which he or she is made a party by reason of having been a director or officer of the Company or such body corporate, provided:

(a) he or she acted in good faith in the best interests of the Company; and

(b) in the case of a criminal or an administrative action or proceeding that is enforced by a monetary penalty, he or she had reasonable grounds to believe that his or her conduct was lawful.

The directors of the Company are authorized to indemnify from time to time any director or other person who has assumed or is about to assume in the normal course of business any liability for the Company or for any corporation controlled by the Company, 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 Company through the creation of a hypothec or any other real right in all or part of such property or in any other manner.

Share Capitalization

Our authorized share capital structure consists of an unlimited number of shares of the following classes (all classes are without nominal or par value): common shares; and first preferred shares (the First Preferred Shares) and second preferred shares (the Second Preferred Shares and, together with the First Preferred Shares, the Preferred Shares), both issuable in series. As of March 22, 2010, 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

Table of Contents

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 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 CBCA 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.

Shareholder Actions

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

Shareholder Rights Plan

Objectives and Background of the Shareholder Rights Plan

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

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

Summary of the Rights Plan

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

Operation of the Rights Plan

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

Table of Contents

Definition of Market Price

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

Trading of Rights

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

Separation Time

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

1. the first date (the Stock Acquisition Date) of a public announcement of facts indicating that a person has become an Acquiring Person; and

2. the date of the commencement of, or first public announcement of the intention of any person (other than the Company or any of its subsidiaries) to commence a take-over bid or a share exchange bid for more than 20% of the outstanding common shares of the Company other than a Permitted Bid or a Competing Permitted Bid (as defined below), so long as such take-over bid continues to satisfy the requirements of a Permitted Bid or a Competing Permitted Bid), as the case may be.

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

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

Flip-in Event

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

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

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

Table of Contents

Agreement may require that such greater number exceed the number of shares under the Locked-up Bid by a specified percentage not to exceed 7%).

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

The Rights Plan requires that any Lock-up Agreement be made available to the Company and the public. The definition of Lock-up Agreement also provides that under a Lock-up Agreement, no break up fees, topping fees, penalties, expenses or other amounts that exceed in aggregate the greater of (i) 2½% of the price or value of the aggregate consideration payable under the Lock-up Bid, and (ii) 50% of the amount by which the price or value of the consideration received by a Locked-up Person under another take-over bid or transaction exceeds what such Locked-up Person would have received under the Lock-up Bid, can be payable by such Locked-up Person if the Locked-up Person fails to deposit or tender common shares to the Lock-up Bid or withdraws common shares previously tendered thereto in order to deposit such common shares to another take-over bid or support another transaction.

Permitted Bid Requirements

The requirements of a Permitted Bid include the following:

1. the take-over bid must be made by means of a take-over bid circular;

2. the take-over bid must be made to all holders of common shares wherever resident, on identical terms and conditions, other than the bidder;

3. the take-over bid must not permit common shares tendered pursuant to the bid to be taken up or paid for

(a) prior to the close of business on a date which is not less than 60 days following the date of the bid, and

(b) then only if at such date more than 50% of the then outstanding common shares held by shareholders other than any other Acquiring Person, the bidder, the bidder s affiliates or associates, persons acting jointly or in concert with the bidder and any employee benefit plan, deferred profit-sharing plan, stock participation plan or trust for the benefit of employees of the Company or any of its subsidiaries, unless the

beneficiaries of such plan or trust direct the manner in which the common shares are to be voted or direct whether the common shares are to be tendered to a take-over bid (the Independent Shareholders), have been deposited or tendered to the take-over bid and not withdrawn;

4. the take-over bid must allow common shares to be deposited, unless the take-over bid is withdrawn, at any time up to the close of business on the date that the common shares are to be first taken up and paid for;

5. the take-over bid must allow common shares to be withdrawn until taken up and paid for; and

6. if more than 50% of the then outstanding common shares held by Independent Shareholders are deposited or tendered to the take-over bid within the 60-day period and not withdrawn, the bidder must make a public announcement of that fact and the take-over bid must remain open for deposits and tenders of common shares for not less than ten days from the date of such public announcement.

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

Table of Contents

Waiver and Redemption

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

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

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

Amendment to the Rights Plan

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

Protection Against Dilution

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

Fiduciary Duty of Board

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

Exemptions for Investment Advisors

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

Term

The Rights Plan will expire (the Expiration Time) on the earlier of the first annual meeting of shareholders of the Company following March 29, 2016, being the sixth anniversary of the Effective Date (subject to the approval of the resolution by the shareholders at the Meeting and reconfirmation at the first annual meeting of shareholders of the Company following March 29, 2013 (being the third anniversary of the Effective Date)) and the time at which the right to exercise rights shall terminate

Table of Contents

pursuant to the provisions of the Rights Plan pertaining to the redemption of rights and the waiver of the application of the Rights Plan, after which time it will automatically terminate.

Action Necessary to Change Rights of Shareholders

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

Disclosure of Share Ownership

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

Additionally, securities regulation in Canada provides for the filing of a report by an insider of a reporting issuer whose holdings change, which report must be filed within ten days from the day on which the change takes place.

Section 13 of the *United States Securities Exchange Act of 1934* (the Exchange Act) imposes reporting requirements on persons who acquire beneficial ownership (as such term is defined in the Rule 13d-3 under the Exchange Act) of more than five percent of a class of an equity security registered under Section 12 of the Exchange Act. The Company s common shares are so registered. In general, such persons must file, within ten days after such acquisition, a report of beneficial ownership with the SEC containing the information prescribed by the regulations under Section 13 of the Exchange Act. This information is also required to be sent to the issuer of the securities and to each exchange where the securities are traded.

Meeting of Shareholders

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

While the bylaws provide that one or more shareholders who hold at least 20% of the outstanding voting shares of the Company may requisition the directors of the Company to call a meeting of shareholders for the purpose stated in the requisition, the CBCA provides that the holders of not less than 5% of the outstanding voting shares of the Company may so requisition the directors of the Company. Except in limited circumstances, including where a meeting of shareholders has already been called and a notice of meeting already given or where it is clear that the primary purpose of the requisition is to redress a personal grievance against the Company or its directors, officers or shareholders, the directors of the Company, on receipt of such requisition, must call a meeting of shareholders. If the directors fail to call a meeting of shareholders within twenty-one days after receiving the requisition, any shareholder who signed the requisition may call the meeting of shareholders and, unless the shareholders resolve otherwise at the meeting, the Company shall reimburse the shareholders for the expenses reasonably incurred by them in requisitioning, calling and holding the meeting of shareholders.

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

A quorum of shareholders is present at an annual or special meeting of shareholders, regardless of the number of persons present in person at the meeting, if the holder or holders of shares representing at least 20% of the outstanding voting shares at such meeting are present in person or represented in accordance with the Company s bylaws. In the case where the CBCA, the Restated Articles of Incorporation or the bylaws of the Company require or permit the vote by class of holders of a given class of shares of the share capital of the Company, the quorum at any meeting will be one or more persons representing 20% of the outstanding shares of such class.

Table of Contents

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

Limitations on Right to Own Securities

Neither Canadian law nor the Company s Restated Articles of Incorporation or bylaws limit the right of a non-resident to hold or vote common shares, other than as provided in the *Investment Canada Act* (the Investment Act). The Investment Act prohibits implementation of certain direct reviewable investments by an individual, government or agency thereof, corporation, partnership, trust or joint venture that is not a Canadian, as defined in the Investment Act (a non-Canadian), unless, after review, the minister responsible for the Investment Act is satisfied or is deemed to be satisfied that the investment is likely to be of net benefit to Canada. An investment in the common shares of the Company by a non-Canadian (other than a WTO Investor, as defined below) would be reviewable under the Investment Act if it were an investment to acquire direct control of the Company, and the book value of the assets of the Company were CAN$5 million or more (provided that immediately prior to the implementation of the investment the Company was not controlled by WTO Investors). Subject to the Amendments (as defined below), an investment in common shares of the Company by a WTO Investor would be reviewable under the Investment Act if it were an investment to acquire direct control of the Company and the value of the assets of the Company equalled or exceeded CAN$299 million (for 2010). A non-Canadian, whether a WTO Investor or otherwise, would be deemed to acquire control of the Company for purposes of the Investment Act if he or she acquired a majority of the common shares of the Company. The acquisition of less than a majority, but at least one-third of the shares, would be presumed to be an acquisition of control of the Company, unless it could be established that the Company was not controlled in fact by the acquirer through the ownership of the shares. In general, an individual is a WTO Investor if he or she is a national of a country (other than Canada) that is a member of the World Trade Organization (WTO Member) or has a right of permanent residence in a WTO Member. A corporation or other entity will be a WTO Investor if it is a WTO Investor-controlled entity, pursuant to detailed rules set out in the Investment Act. The United States is a WTO Member. Certain transactions involving the common shares would be exempt from the Investment Act, including: (a) an acquisition of the shares if the acquisition were made in the ordinary course of that person s business as a trader or dealer in securities; (b) an acquisition of control of the Company in connection with the realization of a security interest granted for a loan or other financial assistance and not for any purpose related to the provisions of the Investment Act; and (c) an acquisition of control of the Company by reason of an amalgamation, merger, consolidation or corporate reorganization, following which the ultimate direct or indirect control in fact of the Company, through the ownership of voting interests, remains unchanged.

The Canadian Federal Government adopted certain amendments (the Amendments) to the Investment Act in 2009. Some of the Amendments, which came into force on February 6, 2009, introduce a national security test and review process, authorizing the Canadian Minister of Industry to review investments that could be injurious to national security, regardless of the size of the transaction. Some of the other Amendments will come into force on a day to be fixed by order of the Canadian Governor in Council, including the increase to the thresholds that trigger governmental review for WTO Investors. Therefore, the thresholds for the review of direct acquisitions of control by WTO Investors would increase from the current CAN$299 million (based on book value) to CAN$600 million (to be based on the enterprise value of the Canadian business) for the two years after such Amendments come into force, to CAN$800 million in the following two years and then to CAN$1 billion for the next two years. Thereafter, the thresholds are to be adjusted to account for inflation. A number of the Amendments still require additional definition and details, which will be set forth in regulations promulgated under the Investment Act.

There are no limits on the rights of non-Canadians to exercise voting rights on their common shares of the Company.

Table of Contents

C. Material contracts

Other than as disclosed herein under Shareholder Rights Plan and below, and except for contracts entered into in the ordinary course of business, there are no material contracts to which the Company or any of its subsidiaries is a party other than the employment agreements and change of control agreements with our executive officers as described below.

Employment Agreements

The Company and/or its subsidiaries have entered into employment agreements (the Employment Agreements) with each of the Named Executive Officers. The Employment Agreements provide that we will pay the Named Executive Officers a base salary and an annual bonus and that such executives will be eligible to receive grants of stock options which will be reviewed annually in accordance with our policies. The Employment Agreements have an indefinite term. However, in addition to his Employment Agreement, Dr. Engel had previously entered into a service contract in his prior capacity as Managing Director with Æterna Zentaris GmbH, our principal subsidiary, which service contract expires on August 31, 2010.Each of the Employment Agreements provides that, if we terminate the employment of a Named Executive Officer without cause, then the executive will be entitled to receive, in the case of Dr. Engel, a lumpsum payment, less statutory deductions, of the equivalent of twelve months of his then applicable base salary, an amount equivalent to the annual bonus received for the most recently completed year and an amount equivalent to twelve months of the cost of the other benefits to which he is entitled (such amounts increasing to the equivalent of 24 months of his then applicable base salary and twice his annual bonus received for the last completed year, commencing in March 2010). In the case of Mr. Turpin, the lump sum will be equivalent to 18 months of his then applicable base salary, 1.5 times the annual bonus of the preceding year and 18 months of the value of the other benefits to which he is entitled. In the case of Dr. Blake and Messrs. Pelliccione and Seeber, they are entitled to receive, upon termination of employment without cause, a lump sum equivalent to twelve months of their then applicable base salaries, an amount equivalent to the annual bonus received for the preceding year and twelve months of the value of the other benefits to which they are entitled.

Furthermore, each Named Executive Officer shall not, directly or indirectly, solicit any of our customers for the purpose or intent of selling them any products which are similar or otherwise competing with our products; nor shall any Named Executive Officer induce, entice or otherwise attempt to directly or indirectly hire or engage any of our employees, for a period equal to one year following such executive s termination of employment with the Company.

Pursuant to the Employment Agreements, each of the Named Executive Officers is also entitled to certain payments (the Change of Control Payments) in the event (i) a Change of Control occurs and (ii) during the twelve-month period following the Change of Control, either the Company terminates the employment of the executive without Cause or if the executive terminates his or her employment for Good Reason .

The Change of Control Payments are as follows:

- for Dr. Engel and Mr. Seeber, (i) the equivalent of 24 months of their then prevailing annual base salaries, (ii) an amount equivalent to twice the annual bonus, if any, which the executive would have been entitled to receive in the year during which the Change of Control occurred, and (iii) an amount equivalent to 24 months of the value of the benefits which were in force at the time of termination of the executive s employment, calculated on a yearly basis, including car allowance, but excluding operating costs; and

- for Mr. Turpin, the Change of Control Payment would be the same as in the context of a termination of employment described above, except that the 1.5 multiple of his bonus payment would be based on his potential bonus for the year in which the Change of Control occurs as opposed to his actual bonus received for the preceding financial year; and

- for Dr. Blake and Mr. Pelliccione (i) the equivalent of 18 months of their then prevailing annual base salaries, (ii) an amount equivalent to 1.5 times the annual bonus, if any, which the executive would have been entitled to receive in the year during which the Change of Control occurred, and (iii) an amount equivalent to 18 months of the value of the benefits which were in force at the time of termination of the executive s employment, calculated on a yearly basis, including car allowance, but excluding operating costs.

All Change of Control Payments described above are subject to applicable statutory withholdings. In addition, any outstanding stock options held by a Named Executive Officer are unaffected by the change of control provisions included in the Employment Agreements and, in the event of a Change of Control followed by termination of employment within twelve months, such stock options will be treated in accordance with the applicable provisions of the Stock Option Plan described elsewhere in this annual report.

Table of Contents

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

- a Change of Control shall be deemed to have occurred in any of the following circumstances: (i) subject to certain exceptions, upon the acquisition by a person (or one or more persons who are affiliates of one another or who are acting jointly or in concert) of a beneficial interest in securities of the Company representing in any circumstance 50% or more of the voting rights attaching to the then outstanding securities of the Company; (ii) upon a sale or other disposition of all or substantially all of the Company s assets; (iii) upon a plan of liquidation or dissolution of the Company; or (iv) if, for any reason, including an amalgamation, merger or consolidation of the Company with or into another company, the individuals who, as at the date of the relevant Employment Agreement, constituted the Board (and any new directors whose appointment by the Board or whose nomination for election by the Company s shareholders was approved by a vote of at least two-thirds of the directors then still in office who either were directors as at the date of the relevant Employment Agreement or whose appointment or nomination for election was previously so approved) cease to constitute a majority of the members of the Board;

- termination of employment by the Company for Cause includes (but is not limited to) (i) if the Executive commits any fraud, theft, embezzlement or other criminal act of a similar nature, and (ii) if the Executive is guilty of serious misconduct or willful negligence in the performance of his duties; and

- termination of employment by the executive officer for Good Reason means the occurrence, without the executive s express written consent, of any of the following acts: (i) a material reduction of the executive s total compensation (including annual base salary plus annual bonus, benefits and number of stock options) as in effect on the date of the relevant Employment Agreement or as same may be increased from time to time; (ii) a material reduction or change in the executive s duties, authority, responsibilities, accountability or a change in the business or corporate structure of the Company which materially affects his or her authority, compensation or ability to perform duties or responsibilities (such as shifting from a policy-making to a policy-implementation position); (iii) a forced relocation; or (iv) a material change in the terms and conditions of the change of control provisions included in the relevant Employment Agreement.

Other Material Contracts

We are party to a license and collaboration agreement with Keryx. Under the terms of this agreement, Keryx undertakes, at its own cost, all development activities necessary to obtain regulatory and marketing approvals of perifosine, a signal transduction inhibitor, for all uses in the United States, Canada and Mexico. The agreement provides for, among other things, the availability of data generated by both parties free of charge. In September 2002, we received an upfront payment of approximately $0.5 million and are eligible to receive payments of up to an aggregate of $18.3 million upon Keryx s successful achievement of clinical development and regulatory milestones, in addition to scale-up royalties (from high single to low double-digit) on future net sales in the United States, Canada and Mexico.

In November 2008, we signed a definitive agreement to sell to CHRP our rights to royalties on future sales of Cetrotide® covered by our license agreement with Merck Serono. This license agreement was signed in 2000 and granted Merck Serono exclusive rights to market, distribute and sell Cetrotide® worldwide, with the exception of Japan, in the field of *in vitro* fertilization. On closing, we received $52.5 million from CHRP (less transaction costs of $1.0 million) and, contingent on 2010 net sales of Cetrotide® reaching a specified level, we would receive an additional payment of $2.5 million from CHRP. Under the terms of the agreement, if cetrorelix is approved for sale by the European regulatory authorities in an indication other than *in vitro* fertilization, we have agreed to make a one-time cash payment to CHRP in an amount ranging from $5 million up to $15 million.

D. Exchange controls

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

Table of Contents

E. Taxation

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

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

This summary is not applicable to a holder an interest in which is a tax shelter investment as defined in the Tax Act, or to a holder which is a financial institution as defined in the Tax Act subject to the mark-to-market rules set out therein. Such holders should consult their own tax advisors.

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

Holders Not Resident in Canada

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

Disposition of Common Shares

A Non-Resident holder will not be subject to tax under the Tax Act in respect of any capital gain realized by such Non-Resident holder on a disposition of common shares unless such shares constitute taxable Canadian property (as defined in the Tax Act) of the Non-Resident holder at the time of disposition and the holder is not entitled to relief under an applicable income tax treaty or convention. As long as the common shares

are then listed on a designated stock exchange (which currently includes the NASDAQ and the TSX), the common shares generally will not constitute taxable Canadian property of a Non-Resident holder, unless at any time during the 60-month period immediately preceding the disposition, the Non-Resident holder, persons with whom the Non-Resident holder did not deal at arm s length, or the Non-Resident holder together with all such persons, owned 25% or more of the issued shares of any class or series of shares of the capital stock of the Company.

Under Tax Proposals announced by the Minister of Finance on March 4, 2010, common shares will generally not constitute taxable Canadian property to a Non-Resident holder at a particular time provided that (a) the common shares are listed on a designated stock exchange and (b) during the 60-month period that ends at the time the common shares are disposed of, both (i) 25% or more of the issued shares of any class or series of shares of the Company were not owned by and did not belong to one or any combination of the Non-Resident holder and persons with whom the Non-Resident holder did not deal at arm s length, and (ii) not more than 50% of the fair market value of the common shares was derived directly or indirectly from real or immovable property situated in Canada, Canadian resource properties, timber resource properties and options in respect of, interests in or rights in such properties, whether or not the property exists.

If the common shares were to cease being listed on the NASDAQ, the TSX or another recognized stock exchange , a Non-Resident holder who disposes of common shares that are taxable Canadian property may be required to fulfill the requirements of section 116 of the Tax Act. An exemption from such requirements is available on the disposition of treaty-

Table of Contents

protected property , which is property any income or gain on the disposition of which is exempt from tax under Part I of the Tax Act as a result of an applicable income tax treaty or convention.

Taxation of Dividends on Common Shares

Dividends paid or credited or deemed to be paid or credited on the common shares to a Non-Resident holder will be subject to Canadian withholding tax in the amount of 25%. Such withholding tax may be reduced by virtue of the provisions of an income tax treaty or convention between Canada and the country of which the Non-Resident holder is a resident. Under the Canada-United States Income Tax Convention (the Convention), the rate of withholding tax in respect of dividends or deemed dividends beneficially owned by a resident of the United States entitled to the benefits of the Convention is generally reduced to 15%.

Holders Resident in Canada

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

Taxation of Dividends on Common Shares

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

Disposition of Common Shares

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

Gains and Capital Losses .

Additional Refundable Tax

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

Taxation of Capital Gains and Capital Losses

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

Table of Contents

Taxable Capital Gain realized by a Canadian holder who is an individual may give rise to liability for alternative minimum tax.

Certain U.S. Federal Income Tax Considerations

The following discussion is a summary of certain U.S. federal income tax consequences applicable to the ownership and disposition of common shares (Shares) by a U.S. Holder (as defined below), but does not purport to be a complete analysis of all potential U.S. federal income tax effects. This summary is based on the Internal Revenue Code of 1986, as amended (the Code), U.S. Treasury regulations promulgated thereunder, Internal Revenue Service (IRS) rulings and judicial decisions in effect on the date hereof. All of these are subject to change, possibly with retroactive effect, or different interpretations.

This summary does not address all aspects of U.S. federal income taxation that may be relevant to particular U.S. Holders in light of their specific circumstances (for example, U.S. Holders subject to the alternative minimum tax provisions of the Code) or to holders that may be subject to special rules under U.S. federal income tax law. This summary also does not address the tax consequences of holding, exercising or disposing of warrants in the Company. If the Company is a passive foreign investment company (PFIC), as defined below, U.S. Holders of its warrants will be subject to adverse tax rules and will not be able to make the mark-to-market or the QEF election described below with respect to such warrants. U.S. Holders of warrants should consult their tax advisors with regard to the U.S. federal income tax consequences of holding, exercising or disposing of warrants in the Company, including in the situation in which the Company is classified as a PFIC.

This summary also does not discuss any aspect of state, local or foreign law, or U.S. federal estate or gift tax law as applicable to U.S. Holders. U.S. Holders should consult their tax advisors about the potential application of such laws and the application of the U.S. federal income tax rules summarized below to their particular situation. In addition, this discussion is limited to U.S. Holders holding Shares as capital assets. For purposes of this summary, U.S. Holder means a beneficial holder of Shares who or that for U.S. federal income tax purposes is:

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

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

Dividends

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

For taxable years beginning before January 1, 2011, dividends paid by the Company should be taxable to a non-corporate U.S. Holder at the special reduced rate normally applicable to long term capital gains, provided that certain conditions are satisfied. A U.S. Holder will not be able to claim the reduced rate if the Company is treated as a PFIC for the taxable year in which a dividend is paid or the preceding year. See Passive Foreign Investment Company Considerations below.

Under current law payments of dividends by the Company to non-Canadian investors are generally subject to a 25 percent Canadian withholding tax. The rate of withholding tax applicable to U.S. Holders that are eligible for benefits under the Canada-United States Tax Convention (1980) (the Treaty) is reduced to a maximum of 15%. This reduced rate of

Table of Contents

withholding will not apply if the dividends received by a U.S. Holder are effectively connected with a permanent establishment of the U.S. Holder in Canada.

Dividends paid in Canadian dollars will be included in income in a U.S. dollar amount calculated by reference to the exchange rate in effect on the day the dividends are received by the U.S. Holder, regardless of whether the Canadian dollars are converted into U.S. dollars at that time. Gain or loss, if any, realized on a sale or other disposition of the Canadian dollars will generally be U.S. source ordinary income or loss to a U.S. Holder.

A U.S. Holder will generally be entitled, subject to certain limitations, to a credit against its U.S. federal income tax liability, or a deduction in computing its U.S. federal taxable income, for Canadian income taxes withheld by the Company. U.S. Holders should consult their tax advisors concerning the foreign tax credit implications of the payment of Canadian taxes.

The Company generally does not pay any dividends and does not anticipate paying any dividends in the foreseeable future.

Sale or Other Taxable Disposition

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

This capital gain or loss will be long-term capital gain or loss if the U.S. Holder s holding period in the Shares exceeds one year. For taxable years beginning before January 1, 2011, the rates of taxation for long-term capital gains of non-corporate U.S. Holders are reduced as compared to such rates thereafter. The deductibility of capital losses is subject to limitations. Any gain or loss will generally be U.S. source for U.S. foreign tax credit purposes.

Passive Foreign Investment Company Considerations

A foreign corporation will be classified as a PFIC for any taxable year in which, after taking into account the income and assets of the corporation and certain subsidiaries pursuant to applicable look-through rules, either (i) at least 75% of its gross income is passive income or (ii) at least 50% of the average value of its assets is attributable to assets which produce passive income or are held for the production of passive income.

The Company believes it was not a PFIC for the 2009 taxable year. However, since the fair market value of the Company s assets may be determined in large part by the market price of the Shares, which is likely to fluctuate, and the composition of the Company s income and assets

will be affected by how, and how quickly, the Company spends any cash that is raised in any financing transaction, no assurance can be provided that the Company would not be classified as a PFIC for the 2010 taxable year and for any future taxable year.

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

Under these adverse rules (a) the excess distribution or gain will be allocated rateably over the U.S. Holder s holding period, (b) the amount allocated to the current taxable year and any taxable year prior to the first taxable year in which the Company is classified as a PFIC will be taxed as ordinary income, and (c) the amount allocated to each of the other taxable years during which the Company was classified as a PFIC will be subject to tax at the highest rate of tax in effect for the applicable class of taxpayer for that year and an interest charge will be imposed with respect to the resulting tax attributable to each such other taxable year.

U.S. Holders can avoid the interest charge described above by making a mark-to-market election with respect to the Shares, provided that the Shares are marketable. Shares will be marketable if they are regularly traded on a qualified exchange or other market. For this purpose, Shares generally will be considered to be regularly traded during any calendar year during which they are traded, other than in *de minimis* quantities, on at least 15 days during each calendar quarter. The Shares are currently listed and regularly traded on NASDAQ, which constitutes a qualified exchange.

Table of Contents

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

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

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

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

If the Company is classified as a PFIC and then ceases to be so classified, a U.S. Holder may make an election (a deemed sale election) to be treated for U.S. federal income tax purposes as having sold such U.S. Holder s Shares on the last day of the taxable year of the Company during which it was a PFIC. A U.S. Holder that made a deemed sale election would then cease to be treated as owning a stock in a PFIC by reason of ownership of Shares in the Company. However, gain recognized as a result of making the deemed sale election would be subject to the adverse rules described above.

Under recently enacted U.S. tax legislation and subject to future guidance, if the Company is a PFIC, U.S. Holders will be required to file, for returns due after March 18, 2010, an annual information return with the IRS relating to their ownership of Shares. Although expected, no guidance has yet been issued about such return, including on the information required to be reported on such return, the form of the return, or the due date for the return.

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

Information Reporting and Backup Withholding

The proceeds of a sale or other disposition, as well as dividends paid with respect to Shares by a U.S. payor, generally will be reported to the IRS and to the U.S. Holder as required under applicable regulations. Backup withholding tax may apply to these payments if the U.S. Holder fails to timely provide in the appropriate manner an accurate taxpayer identification number or otherwise fails to comply with, or establish an exemption from, such backup withholding tax requirements. Certain U.S. Holders (including, among others, corporations) are not subject to the information reporting or backup withholding tax requirements described herein. U.S. Holders should consult their tax advisors as to their qualification for exemption from backup withholding tax and the procedure for obtaining an exemption.

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

Subject to specified exceptions and future guidance, recently enacted U.S. tax legislation generally requires a U.S. Holder (that is an individual or, to the extent provided in future guidance, a domestic entity) to report to the IRS such U.S. Holder s interests in stock or securities issued by a non-U.S. person (such as the Company) for taxable years beginning after March 18, 2010. Although expected, no guidance on this reporting requirement has yet been issued. U.S. Holders should consult their tax advisors regarding the information reporting obligations that may arise from their acquisition, ownership or disposition of Shares.

Table of Contents

F. Dividends and paying agents

Not applicable.

G. Statement by experts

Not applicable.

H. Documents on display

In addition to placing our audited comparative annual financial statements before every annual meeting of shareholders as described above, we are subject to the information requirements of the Securities Exchange Act of 1934, as amended. In accordance with these requirements, we file and furnish reports and other information with the SEC. These materials, including this annual report on Form 20-F and the exhibits thereto, may be inspected and copied at the SEC s Public Reference Room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. The public may obtain information on the operation of the SEC s Public Reference Room by calling the SEC in the United States at 1-800-SEC-0330. The SEC also maintains a website at www.sec.gov that contains reports, proxy statements and other information regarding registrants that file electronically with the SEC. The Company s annual reports and some of the other information submitted by the Company to the SEC may be accessed through this website. In addition, material filed by the Company can be inspected on the Canadian Securities Administrators electronic filing system, SEDAR, accessible at the website www.sedar.com. This material includes the Company s Management Information Circular for its annual meeting to be held on May 13, 2010 to be furnished to the SEC on Form 6-K, which provides information including directors and officers remuneration and indebtedness and principal holders of securities. Additional financial information is provided in our annual financial statements for the year ended December 31, 2009 and our MD&A relating to these statements included elsewhere in this annual report. These documents are also accessible on SEDAR (www.sedar.com) and on EDGAR (www.sec.gov).

I. Subsidiary information

The subsidiaries of the Company are set forth under Item 4C. Organizational Structure .

Item 11. Quantitative and Qualitative Disclosures About Market Risk

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

Fair value

The Company has established the following classifications for its financial instruments:

- cash and cash equivalents and restricted cash (2009 only) are classified under Assets Held for Trading ;
- short-term investments (2008 only) are classified under Available-for-Sale Assets ;
- accounts receivable are classified under Loans and Receivables ; and
- accounts payable and accrued liabilities, long-term payable and other long-term liability are classified under Other Financial Liabilities .

The carrying values of all of the aforementioned financial instruments approximate their fair values due to their short-term maturity or to the prevailing interest rates of these instruments, which are comparable to those of the market.

Table of Contents

Financial risk management

Disclosures relating to the nature and extent of the Company s exposure to risks arising from financial instruments, including credit risk, liquidity risk, foreign currency risk and interest rate risk, and how the Company manages those risks, are presented below.

a) Credit risk

Credit risk is the risk of an unexpected loss if a customer or counterparty to a financial instrument fails to meet its contractual obligations. The Company regularly monitors its credit risk exposure and takes steps to mitigate the likelihood of these exposures from resulting in actual loss.

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents, restricted cash, short-term investments and accounts receivable. Cash and cash equivalents and restricted cash balances are maintained with high-credit quality financial institutions. Short-term investments (2008 only) consist of notes issued by high-credit quality corporations and institutions. Also, any accounts receivable balances due to the Company that are past due as at December 31, 2009 are insignificant, both individually and in the aggregate. Consequently, management considers the risk of non-performance related to cash and cash equivalents, restricted cash, short-term investments and accounts receivable to be minimal.

b) Foreign Currency Risk

Since the Company operates on an international scale, it is exposed to currency risks as a result of potential exchange rate fluctuations related to non-intragroup transactions. Fluctuations in the US dollar and the EUR exchange rates could have a potentially significant impact on the Company s results of operations. The following variations are reasonably possible over a 12-month period:

- Foreign exchange rate variation of -5% (depreciation of the EUR) and +5% (appreciation of the EUR) against the US$, from a period-end rate of EUR1.00 = US$1.4272.

If these variations were to occur, the impact on the Company s consolidated net loss for each category of financial instruments held at December 31, 2009 would be as follows:

		Balances denominated in US$	
(in thousands)	**Carrying amount**	**-5%**	**+5%**
	$	**$**	**$**
Assets			

Cash and cash equivalents	27,244	**1,362**	**(1,362)**
Total impact on consolidated net loss - (increase)/decrease		**1,362**	**(1,362)**

c) Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they become due. The Company manages liquidity risk through the management of its capital structure and financial leverage. The Company also manages liquidity risk by continuously monitoring actual and projected cash flow. The Board of Directors reviews and approves the Company s operating and capital budgets, and reviews any material transactions outside of the normal course of business.

The Company s investment policy ensures the safety and preservation of its principal, as outlined above, to ensure the Company s liquidity needs are met.

Table of Contents

Item 12. Description of Securities Other than Equity Securities

A. Debt securities

Not applicable.

B. Warrants and rights

Not applicable.

C. Other securities

Not applicable.

D. American depositary shares

Not applicable.

PART II

Item 13. Defaults, Dividend Arrearages and Delinquencies

None.

Item 14. Material Modification to the Rights of Security Holders and Use of Proceeds

None.

Item 15. Controls and Procedures

Under the supervision and with the participation of the Registrant s management, including the Chief Executive Officer and Chief Financial Officer, we have evaluated the effectiveness of our disclosure controls and procedures as at December 31, 2009. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that these disclosure controls and procedures were effective as at December 31, 2009.

Management s Annual Report on Internal Control over Financial Reporting

The Registrant s management is responsible for establishing and maintaining adequate internal control over financial reporting. The Registrant s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP.

The Registrant s internal control over financial reporting includes those policies and procedures that: (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the Registrant s assets; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, and that receipts and expenditures of the Registrant are being made only in accordance with authorizations of the Registrant s management; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Registrant s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management conducted an evaluation of the effectiveness of the Registrant s internal control over financial reporting based on the criteria established in Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, management concluded that the Registrant s internal control over financial reporting was effective as at December 31, 2009.

Table of Contents

Attestation Report of the Independent Auditors

See the report of PricewaterhouseCoopers LLP included under Item 18, Financial Statements .

Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting during the year ended December 31, 2009 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 16. [Reserved]

Item 16A. Audit Committee Financial Expert

The Board of the Registrant has determined that the Registrant has at least one audit committee financial expert (as defined in paragraph (b) of Item 16A to Form 20-F). The name of the audit committee financial expert of the Registrant is Mr. Gérard Limoges, FCA, the Audit Committee s Chairman. The Commission has indicated that the designation of Mr. Limoges as the audit committee financial expert of the Registrant does not: (i) make Mr. Limoges an expert for any purpose, including without limitation for purposes of Section 11 of the Securities Act of 1933, as amended, as a result of this designation; (ii) impose any duties, obligations or liability on Mr. Limoges that are greater than those imposed on him as a member of the Audit Committee and the Board in the absence of such designation; or (iii) affect the duties, obligations or liability of any other member of the Audit Committee or the Board. The other members of the Audit committee are Ms. Martha Byorum and Mr. Pierre MacDonald, each of whom, along with Mr. Limoges, is independent, as that term is defined in the NASDAQ listing standards. For a description of their respective education and experience, please refer to Item 6. Directors, Senior Management and Employees .

Item 16B. Code of Ethics

On March 29, 2004, the Board adopted a Code of Ethical Conduct , which has been amended by the Board on November 3, 2004, December 13, 2005, March 2, 2007 and March 10, 2009. The December 13, 2005 amendment incorporates changes to the duty to report violations consistent with applicable laws. The Registrant has selected an independent third party supplier to provide a confidential and anonymous communication channel for reporting concerns about possible violations to the Registrant s Code of Ethical Conduct as well as financial and/or accounting irregularities or fraud. A copy of the Code of Ethical Conduct, as amended, is attached as Exhibit 11.1 to this annual report and is also available on the Registrant s Web site at www.aezsinc.com under the Investors Governance tab. The Code of Ethical Conduct is a code of ethics as defined in paragraph (b) of Item 16B to Form 20-F. The Code of Ethical Conduct applies to all of the Registrant s employees, directors and officers, including the Registrant s principal executive officer, principal financial officer, and principal accounting officer or controller, or persons performing similar functions, and includes specific provisions dealing with integrity in accounting matters, conflicts of interest and compliance with applicable laws and regulations. The Registrant will provide this document without charge to any person or company upon request to the Corporate Secretary of the Registrant, at its head office at 1405 du Parc-Technologique Boulevard, Quebec City, Quebec, G1P 4P5, Canada.

Item 16C. Principal Accountant Fees and Services

(All amounts are in US dollars)

A. Audit Fees

During the financial years ended December 31, 2009 and 2008, the Registrant s principal accountant, PricewaterhouseCoopers LLP, billed it aggregate amounts of $435,710 and $332,495, respectively, for the audit of the Registrant s annual consolidated financial statements and services in connection with statutory and regulatory filings.

B. Audit-related Fees

During the financial years ended December 31, 2009 and 2008, the Registrant s principal accountant, PricewaterhouseCoopers LLP, billed it aggregate amounts of $44,485 and $219,407, respectively, for audit or attest services not required by statute or regulation, employee benefit plan audits, due diligence services, and accounting consultations on

Table of Contents

proposed transactions, including the review of prospectuses and the delivery of customary consent and comfort letters in connection therewith.

C. Tax Fees

During the financial years ended December 31, 2009 and 2008, the Registrant s principal accountant, PricewaterhouseCoopers LLP, billed it aggregate amounts of $63,819 and $96,017, respectively, for services related to tax compliance, tax planning and tax advice.

D. All Other Fees

During the financial years ended December 31, 2009 and 2008, the Registrant s principal accountant, Pricewaterhouse Coopers LLP, billed it aggregate amounts of $4,164 and $12,962, respectively, for services not included in audit fees, audit-related fees and tax fees consisting primarily of fees for translation services.

E. Audit Committee Pre-Approval Policies and Procedures

Under applicable Canadian securities regulations, the Registrant is required to disclose whether its Audit Committee has adopted specific policies and procedures for the engagement of non-audit services and to prepare a summary of these policies and procedures. The Audit Committee Charter (filed as Exhibit 11.6 to this annual report) provides that it is such committee s responsibility to approve all audit engagement fees and terms as well as reviewing policies for the provision of non-audit services by the external auditors and, when required, the framework for pre-approval of such services. The Audit Committee delegates to its Chairman the pre-approval of such non-audit fees. The pre-approval by the Chairman is then presented to the Audit Committee at its first scheduled meeting following such pre-approval.

For each of the years ended December 31, 2009 and 2008, none of the non-audit services provided by the Registrant s external auditor were approved by the Audit Committee pursuant to the de minimis exception to the pre-approval requirement for non-audit services.

During the financial year ended on December 31, 2009, only full-time permanent employees of the Registrant s principal accountant, PricewaterhouseCoopers LLP, performed work to audit the Registrant s financial statements.

Item 16D. Exemptions from the Listing Standards for Audit Committees

None.

Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers

None.

Item 16F. Changes in Registrant s Certifying Accountant

None.

Item 16G. Corporate Governance

The Registrant is in compliance with the corporate governance requirements of the NASDAQ except as described below. The Registrant is not in compliance with the NASDAQ requirement that a quorum for a meeting of the holders of the common stock of the Registrant be no less than 33 1/3% of such outstanding shares. The by-laws of the Registrant provide that a quorum for purposes of any meeting of shareholders of the Registrant consists of at least 20% of the outstanding voting shares. The Registrant received an exemption from NASDAQ from this quorum requirement because the quorum provided for in the by-laws of the Registrant is consistent with generally accepted business practices in Canada, the Registrant s country of domicile, and with the TSX, the home country exchange on which the Registrant s voting shares are traded.

In addition, the Registrant follows certain of its home country practices in lieu of compliance with the NASDAQ requirements that: (i) independent directors of the Registrant have regularly scheduled meetings at which only independent directors are present (executive sessions); (ii) the compensation of the chief executive officer and the other executive officers of the Registrant be determined, or recommended to the Registrant s Board for determination, by a compensation committee comprised solely of independent directors; and (iii) the director nominees be selected, or recommended for

Table of Contents

selection by the Registrant s Board, by a nominations committee comprised solely of independent directors. The Chairman of the Board of the Registrant from time to time ensures that directors hold meetings at which senior management is not present, and the Registrant s Corporate Governance, Nominating and Human Resources Committee, which serves as the Registrant s compensation and nominations committee, is comprised of four members, four of whom are independent directors. In accordance with applicable current NASDAQ requirements, the Registrant has in the past provided to NASDAQ letters from outside counsel certifying that these practices are not prohibited by the Registrant s home country law.

PART III

Item 17. Financial Statements

We have elected to provide financial statements pursuant to Item 18.

Item 18. Financial Statements

The financial statements appear on pages 120 through 170.

Table of Contents

Æterna Zentaris Inc.

Consolidated Financial Statements

December 31, 2009, 2008 and 2007

(expressed in thousands of US dollars)

Table of Contents

Independent Auditors Report

To the Shareholders of

Æterna Zentaris Inc.

We have completed integrated audits of Æterna Zentaris Inc. s 2009, 2008 and 2007 consolidated financial statements and of its internal control over financial reporting as at December 31, 2009. Our opinions, based on our audits, are presented below.

Consolidated financial statements

We have audited the accompanying consolidated balance sheets of Æterna Zentaris Inc. as at December 31, 2009 and 2008, and the related consolidated statements of operations, comprehensive loss, accumulated other comprehensive income and deficit, changes in shareholders equity and cash flows for each of the years in the three-year period ended December 31, 2009. We have also audited the financial statement schedules, Valuation and Qualifying Accounts and Export Sales, in Item 8.A. of this Annual Report on Form 20-F. These consolidated financial statements and financial statement schedules are the responsibility of the Company s management. Our responsibility is to express an opinion on these consolidated financial statements and financial statement schedules based on our audits.

We conducted our audits of the Company s financial statements in accordance with Canadian generally accepted auditing standards and the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform an audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit of financial statements includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. A financial statement audit also includes assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as at December 31, 2009 and 2008 and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2009 in accordance with Canadian generally accepted accounting principles. Furthermore, in our opinion, the financial statement schedules, Valuation and Qualifying Accounts and Export Sales, in Item 8.A. of this Annual Report on Form 20-F present fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements.

Internal control over financial reporting

We have also audited Æterna Zentaris Inc. s internal control over financial reporting as at December 31, 2009, based on criteria established in *Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission* (COSO). The Company s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in Management s Annual Report on Internal Control over Financial Reporting

appearing on Page 116 of this Annual Report on Form 20-F. Our responsibility is to express an opinion on the Company s internal control over financial reporting based on our audit.

PricewaterhouseCoopers refers to PricewaterhouseCoopers LLP/s.r.l./s.e.n.c.r.l., an Ontario limited liability partnership, or, as the context requires, the PricewaterhouseCoopers global network or other member firms of the network, each of which is a separate legal entity.

Table of Contents

We conducted our audit of internal control over financial reporting in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. An audit of internal control over financial reporting includes obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we consider necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company s internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as at December 31, 2009 based on criteria established in Internal Control Integrated Framework issued by the COSO.

(1)

Quebec City, Province of Quebec, Canada
March 23, 2010

(1) Chartered accountant auditor permit No. 11070

Table of Contents

Æterna Zentaris Inc.

Consolidated Balance Sheets

(expressed in thousands of US dollars)

	As at December 31,	
	2009	**2008**
	$	**$**
ASSETS		
Current assets		
Cash and cash equivalents	**38,100**	49,226
Short-term investments		493
Accounts receivable		
Trade	**2,444**	3,425
Other	**992**	1,100
Income taxes	**113**	48
Inventory (note 9)	**4,415**	3,385
Prepaid expenses and other current assets	**2,949**	4,047
	49,013	61,724
Restricted cash (note 10)	**878**	
Property, plant and equipment (note 11)	**4,358**	6,682
Deferred charges and other long-term assets (note 12)	**4,733**	5,959
Intangible assets (note 13)	**17,034**	23,894
Goodwill (note 14)	**10,246**	10,083
	86,262	108,342
LIABILITIES		
Current liabilities		
Accounts payable and accrued liabilities (note 15)	**11,919**	13,690
Income taxes	**965**	800
Deferred revenues	**6,327**	7,631
Current portion of long-term payable (note 8)	**57**	49
	19,268	22,170
Deferred revenues	**45,919**	54,433
Long-term payable (note 8)	**143**	172
Employee future benefits (note 16)	**11,640**	10,092
Other long-term liability	**66**	
	77,036	86,867
Commitments and contingencies (note 24)		
SHAREHOLDERS EQUITY		
Share capital (note 17)	**41,203**	30,566
Warrants (note 17)	**2,899**	
Other capital	**79,943**	79,669
Deficit	**(127,538)**	(102,814)
Accumulated other comprehensive income	**12,719**	14,054
	9,226	21,475
	86,262	108,342
Basis of presentation (note 2)		
Evaluation of going concern (note 2)		

Approved by the Board of Directors

Juergen Ernst, MBA Director	Gérard Limoges, FCA Director

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

Table of Contents

Æterna Zentaris Inc.

Consolidated Statements of Changes in Shareholders Equity

For the years ended December 31, 2009, 2008 and 2007

(expressed in thousands of US dollars, except share data)

	Common shares (number of)	Share capital $	Warrants $	Other capital $	Deficit $	Accumulated other comprehensive income $	Total $
Balance December 31, 2006	**53,169,470**	**168,466**		**6,226**	**(10,114)**	**14,301**	**178,879**
Effect of the application of new accounting standards					(587)	(41)	(628)
Distribution of Atrium (note 6)		(137,959)		71,122		(5,624)	(72,461)
Net loss for the year					(32,296)		(32,296)
Foreign currency translation adjustments						13,783	13,783
Variation in the fair value of short-term investments, net of income taxes						51	51
Issuances pursuant to the stock option plan							
For cash (note 17)	18,000	33					33
Ascribed value from Other capital		26		(26)			
Disposal of shares of Echelon (note 7)						(754)	(754)
Stock-based compensation costs				1,984			1,984
Balance December 31, 2007	**53,187,470**	**30,566**		**79,306**	**(42,997)**	**21,716**	**88,591**
Net loss for the year					(59,817)		(59,817)
Foreign currency translation adjustments						(7,655)	(7,655)
Variation in the fair value of short-term investments, net of income taxes						(7)	(7)
Stock-based compensation costs				363			363
Balance December 31, 2008	**53,187,470**	**30,566**		**79,669**	**(102,814)**	**14,054**	**21,475**
Net loss for the year					(24,724)		(24,724)
Issuances pursuant to registered direct offerings, net of transaction costs (note 17)	9,902,484	10,637	2,899				13,536
Foreign currency translation adjustments						(1,332)	(1,332)
Variation in the fair value of short-term investments, net of income taxes						(3)	(3)
Stock-based compensation costs				274			274
Balance December 31, 2009	**63,089,954**	**41,203**	**2,899**	**79,943**	**(127,538)**	**12,719**	**9,226**

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

Table of Contents

Æterna Zentaris Inc.

Consolidated Statements of Accumulated Other Comprehensive Income and Deficit

(expressed in thousands of US dollars)

	As at December 31,		
	2009	**2008**	**2007**
	$	**$**	**$**
Accumulated other comprehensive income:			
Foreign currency translation adjustments	12,719	14,051	21,706
Variation in fair market value of short-term investments, net of income taxes		3	10
Accumulated Other Comprehensive Income	12,719	14,054	21,716
Deficit	(127,538)	(102,814)	(42,997)
Total Accumulated Other Comprehensive Income and Deficit	(114,819)	(88,760)	(21,281)

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

Table of Contents

Æterna Zentaris Inc.

Consolidated Statements of Operations

For the years ended December 31,

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

	2009 $	2008 $	2007 $
Revenues			
License fees	42,221	8,504	12,843
Sales and royalties	20,957	29,462	28,825
Other	59	512	