

Management's Discussion and Analysis of Financial Condition and Results of Operations

Introduction

This Management's Discussion and Analysis ("MD&A") provides a review of the results of operations, financial condition and cash flows of Aeterna Zentaris Inc. as at June 30, 2019 and for the three-months and six-months ended June 30, 2019 and 2018. In this MD&A, "Aeterna Zentaris", the "Company", "we", "us" and "our" mean Aeterna Zentaris Inc. and its subsidiaries. This discussion should be read in conjunction with the information contained in our unaudited condensed interim consolidated financial statements and the accompanying notes thereto as at June 30, 2019 and for the three-months and six-months ended June 30, 2019 and 2018, and the audited consolidated financial statements and MD&A for the years ended December 31, 2018 and 2017, which were prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB"). All amounts in this MD&A are presented in US dollars, except as otherwise noted.

We have three wholly-owned direct and indirect subsidiaries, Aeterna Zentaris GmbH ("AEZS Germany"), based in Frankfurt, Germany; Zentaris IVF GmbH, a direct wholly-owned subsidiary of AEZS Zentaris GmbH, based in Frankfurt, Germany; and Aeterna Zentaris, Inc., an entity incorporated in the State of Delaware with an office in Summerville, South Carolina in the United States. Our common shares are listed on both the NASDAQ Capital Market and on the Toronto Stock Exchange under the symbol "AEZS".

This MD&A was approved by our Board of Directors on August 12, 2019.

About Forward-Looking Statements

This document contains forward-looking statements (as defined by applicable securities legislation) made pursuant to the safe-harbor provision of the U.S. Securities Litigation Reform Act of 1995, which reflect our current expectations regarding future events. Forward-looking statements may include, but are not limited to statements preceded by, followed by, or that include the words "will," "expects," "believes," "intends," "would," "could," "may," "anticipates," and similar terms that relate to future events, performance, or our results. Forward-looking statements involve known and unknown risks and uncertainties, including those discussed in this MD&A and in our Annual Report on Form 20-F, under the caption "Key Information - Risk Factors" filed with the relevant Canadian securities regulatory authorities in lieu of an annual information form and with the U.S. Securities and Exchange Commission ("SEC"). Known and unknown risks and uncertainties could cause our actual results to differ materially from those in forward-looking statements. Such risks and uncertainties include, among others, our ability to continue as a going concern dependent, in part, on the Company's ability to transfer cash from AEZS Germany to the Canadian parent and U.S. subsidiary and secure additional financing, our heavy dependence on the success of Macrilen™ (macimorelin) and related out-licensing arrangements and the continued availability of funds and resources to successfully commercialize the product, our strategic review process, the ability of the Special Committee to carry out its mandate, the ability of the Company to enter into out-licensing, development, manufacturing and marketing and distribution agreements with other pharmaceutical companies and keep such agreements in effect, reliance on third parties for the manufacturing and commercialization of our product candidates, potential disputes with third parties, leading to delays in or termination of the manufacturing, development, out-licensing or commercialization of our product candidates, or resulting in significant litigation or arbitration, and, more generally, uncertainties related to the regulatory process, our ability to efficiently commercialize or out-license Macrilen™ (macimorelin), the degree of market acceptance and resulting sales of Macrilen™ (macimorelin), our ability to obtain necessary approvals from the relevant regulatory authorities to enable us to use the desired brand names for our product, the impact of securities class action litigation on our cash flow, results of operations and financial position, any evaluation of potential strategic alternatives to maximize potential future growth and stakeholder value may not result in any such alternative being pursued, and even if pursued, may not result in the anticipated benefits, our ability to take advantage of business opportunities in the pharmaceutical industry, our ability to protect our intellectual property, and the potential

Second Quarter MD&A - 2019

of liability arising from shareholder lawsuits and general changes in economic conditions. Investors should consult our quarterly and annual filings with the Canadian and U.S. securities commissions for additional information on risks and uncertainties. Given these uncertainties and risk factors, readers are cautioned not to place undue reliance on these 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 applicable law.

About Material Information

This MD&A includes information that we believe to be material to investors after considering all circumstances. 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 securities, or where it is likely that a reasonable investor would consider the information and disclosures to be important in making an investment decision.

We are a reporting issuer under the securities legislation of all of the provinces of Canada, and our securities are registered with the SEC. We are therefore required to file or furnish continuous disclosure information, such as interim and annual financial statements, MD&A, proxy or information circulars, annual reports 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 upon request from our Corporate Secretary or on the Internet at the following addresses: www.aezsinc.com, www.sedar.com and www.sec.gov.

Company Overview

Aeterna Zentaris Inc. is a specialty biopharmaceutical company engaged in commercializing novel pharmaceutical therapies, principally through out-licensing arrangements. We are a party to a license and assignment agreement with Novo Nordisk A/S (“Novo”) to carry out development, manufacturing, registration, regulatory, supply chain for the commercialization of Macrilen™ (macimorelin), which is to be used in the diagnosis of patients with adult growth hormone deficiency (“AGHD”), in the United States and Canada (the “License and Assignment Agreement”). In addition, we are actively pursuing business development opportunities for macimorelin in the rest of the world and to monetize the value of our non-strategic assets.

Key Developments

On January 16, 2018, the Company through AEZS Germany entered into the “License and Assignment Agreement with Strongbridge Ireland Limited (“Strongbridge”) to carry out development, manufacturing, registration, regulatory and supply chain services for the commercialization of Macrilen™ (macimorelin) in the United States and Canada, which provides for (i) the “right to use” license relating to the Adult Indication; (ii) the sale of the right to acquire a license of a future pediatric indication approved by the United States Food and Drug Administration (“FDA”); (iii) the licensee to fund 70% of the costs of a pediatric clinical trial submitted for approval to the EMA and FDA to be run by the Company with customary oversight from a joint steering committee (the “JSC”); and (iv) an Interim Supply Arrangement. Product sales of Macrilen™ (macimorelin) began on July 23, 2018 by Strongbridge; effective December 19, 2018, Strongbridge was sold to Novo. The Company has earned \$21,000 in royalty income, sold \$129,000 in product supply, invoiced \$621,000 relating to the Pediatric Investigation Plan (“PIP”) study and \$839,000 for supply chain costs to Novo in the six-month period ended June 30, 2019 (2018 - \$nil).

In the first six months of 2019, the Company has earned \$21,000 from the license of Macrilen™ (macimorelin) as gross sales in the U.S. continue to disappoint. Novo Nordisk has advised that Macrilen™ (macimorelin) has been successfully integrated into their patient and provider support hub as they work to gain broader product coverage with payers and specialty pharmacies. We continue to work with Novo Nordisk on addressing the disappointing U.S. commercial execution and results to date.

Also, in the first six months of 2019, the initial phase of the macimorelin PIP study (the dose ranging study) continued to progress with the first one-third of subjects having completed the protocol, all in accordance with our expected timeline.

On March 12, 2019, the Company announced that its board of directors formed a special committee of independent directors (the “Special Committee”) to review strategic options available to the Company. The Special Committee has

Second Quarter MD&A – 2019

approved the engagement by the Company of a financial advisor that is working with management to assist the Special Committee and the board of directors in considering a wide range of transactions, including opportunities for the license of Macrilen™ (macimorelin) outside of the United States and Canada, or other monetization transactions relating to Macrilen™ (macimorelin).

On January 16, 2019, we announced that the European Medicines Agency (“EMA”) granted marketing authorization for macimorelin for the diagnosis of AGHD. We believe that this marks an important development in our European commercialization strategy based on research evaluating the prevalence of AGHD in adults in Europe. We are in discussions with a variety of companies regarding licensing and/or distribution opportunities in the rest of the world (“ROW”).

On June 6, 2019, the Company announced that it was reducing the size of its German workforce and operations to more closely reflect the Company’s ongoing commercial activities in Frankfurt. This restructuring affects 8 employees in Frankfurt, Germany and resulted in \$773,000 of severance costs that are expected to be paid by January 31, 2020.

Management has evaluated whether material uncertainties exist relating to events or conditions and believes that the commercial success of Macrilen™ (macimorelin) will depend on several factors, including, but not limited to, the receipt of approvals from foreign regulatory authorities; Novo developing appropriate distribution and marketing infrastructure and arrangements and launching and growing commercial sales of Macrilen™ (macimorelin); and acceptance of Macrilen™ (macimorelin) in the medical community, among patients and with third party payers.

Monetization of non-strategic assets

Opportunities for the Company to monetize non-strategic assets include preclinical work done on AEZS-120, a prostate cancer vaccine and discovery research for ERK-inhibitors for Oncology indication.

Outlook for 2019

The following represents forward-looking information and users are cautioned that actual results may vary.

Following Novo’s acquisition of the U.S. and Canadian rights to Macrilen™ (macimorelin), the JSC met in January and May 2019 to discuss Novo’s commercialization plan for the United States, their supply chain needs and the enrollment of patients and protocols of the PIP study. The Company expects that quarterly meetings will continue to occur as forecasts for sales, inventory build and needs for the PIP study continue to occur.

The Special Committee has approved the engagement of Torrey, a global investment bank specializing in life sciences, as its financial advisor. Torrey is working with management to assist the Special Committee and the board of directors in considering a wide range of transactions, including opportunities for the license of macimorelin outside of the United States and Canada, other monetization transactions relating to macimorelin or the potential sale of the Company, which may create value for our shareholders and other stakeholders. The Company believes that the EMA’s January 2019 announcement of marketing authorization for macimorelin for the diagnosis of AGHD has further validated the clinical profile and commercial value of macimorelin. As of the date hereof, the Special Committee continues to evaluate strategic options but has not recommended that the Company enter into any particular transaction at this time.

Our priority is in the commercialization of macimorelin; however, we continue to pursue out-licensing opportunities of our non-strategic assets, as they arise.

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

The further development and commercialization of Macrilen™ (macimorelin) in 2019 is the Company's primary focus. As such, we expect that research and development costs will be up to \$2.0 million for the year ending December 31, 2019 and will comprise termination benefits, commercial service, consultant, employee and patent costs relating to the PIP study and for follow-up studies agreed with the EMA. We expect our general and administrative expenses to range between \$6.5 million and \$7.5 million for the year ending December 31, 2019 and to consist primarily of employee, insurance, rent, legal and public company costs.

The recently announced restructuring to the German operations has increased the Company's operating expenses by \$773,000 and led to an additional impairment in the building right of use asset of \$64,000 as office and lab space will become vacant or underutilized.

In addition, the Company has incurred \$354,000 in operating expenses relating to its work with Torreyia which have been classified as follows:

- \$279,000 as Selling expenses; and
- \$75,000 as General and administrative expenses.

We are working with Torreyia on European and ROW business development activities to support the commercialization of macimorelin outside of Canada and the United States and expect our selling expenses to be up to \$2.0 million for the year ending December 31, 2019.

Second Quarter MD&A - 2019

Condensed Interim Consolidated Statements of Comprehensive Income (Loss)

<i>(in thousands, except share and per share data)</i>	Three months ended June 30,		Six months ended June 30,	
	2019	2018	2019	2018
	\$	\$	\$	\$
Revenues				
Royalty income	8	—	21	—
Product sales	129	—	129	—
Sales commission and other	39	79	45	169
Licensing revenue	18	89	36	24,657
Total revenues	194	168	231	24,826
Cost of goods sold	101	197	101	197
Gross income (loss)	93	(29)	130	24,629
Research and development costs	571	974	1,099	1,807
General and administrative expenses	1,923	2,004	3,560	4,790
Selling expenses	495	497	799	2,138
Restructuring costs	773	—	773	—
Impairment of right of use asset	64	—	401	—
Write-off of other current assets	—	—	169	—
Total operating expenses	3,826	3,475	6,801	8,735
(Loss) income from operations	(3,733)	(3,504)	(6,671)	15,894
(Loss) gain due to changes in foreign currency exchange rates	(6)	677	58	725
Change in fair value of warrant liability	3,926	(134)	1,865	1,694
Other finance income	19	126	43	144
Net finance income	3,939	669	1,966	2,563
Income (loss) before income taxes	206	(2,835)	(4,705)	18,457
Income tax recovery (expense)	—	233	—	(6,635)
Net income (loss)	206	(2,602)	(4,705)	11,822
Other comprehensive (loss) income:				
Foreign currency translation adjustments	(110)	(28)	(26)	(250)
Actuarial loss (gain) on defined benefit plans	(756)	205	(1,491)	205
Comprehensive (loss) income	(660)	(2,425)	(6,222)	11,777
Net (loss) income per share [basic]	0.01	(0.16)	(0.28)	0.72
Net (loss) income per share [diluted]	0.01	(0.16)	(0.28)	0.70
Weighted average number of shares outstanding:				
Basic	16,622,415	16,440,760	16,532,090	16,440,760
Diluted	17,260,016	16,440,760	16,532,090	16,489,364

Second Quarter MD&A - 2019

Condensed Interim Consolidated Statement of Financial Position

(in thousands)

	As at June 30, 2019	As at December 31, 2018
	\$	\$
Cash and cash equivalents	9,683	14,512
Trade and other receivables and other current assets	1,524	1,504
Inventory	562	240
Restricted cash equivalents	367	418
Property, plant and equipment	48	65
Right of use asset	340	—
Other non-current assets	8,227	8,272
Total assets	20,751	25,011
Payables and other current liabilities	3,200	2,966
Current portion of deferred revenues	74	74
Warrant liability	1,451	3,634
Current provision for restructuring costs and other costs	1,004	887
Taxes payable	1,662	1,669
Employee future benefits	14,561	13,205
Lease liabilities	1,205	—
Non-current portion of restructuring and other costs and deferred revenues	622	669
Total liabilities	23,779	23,104
Shareholders' (deficiency) equity	(3,028)	1,907
Total liabilities and shareholders' equity (deficiency)	20,751	25,011

Critical Accounting Policies, Estimates and Judgments

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

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

Critical accounting estimates and assumptions, as well as critical judgments used in applying accounting policies in the preparation of our interim condensed consolidated financial statements were the same as those found in note 4 to our annual consolidated financial statements as of December 31, 2018 and 2017 and for the years ended December 31, 2018, and 2017 except for those related to the adoption of IFRS 16, as follows:

Second Quarter MD&A - 2019

Critical judgments in determining the lease term and discount rate

In determining the lease term, management considers all facts and circumstances that create an economic incentive to exercise an extension option, or not exercise a termination option. Extension options (or periods after termination options) are only included in the lease term if the lease is reasonably certain to be extended (or not terminated).

In determining the appropriate discount rate, management identified the rate for the building based on the type and location of the Company's office, laboratory and storage facility in Frankfurt and, for vehicle and equipment leases, used the risk-free rate, credit spread and lease specific adjustment for similar assets.

Results of operations for the three-month period ended June 30, 2019

For the three-month period ended June 30, 2019, we reported a consolidated net income of \$0.2 million, or \$0.01 income per common share (basic), as compared with a consolidated net loss of \$2.6 million, or \$0.16 loss per common share, for the three-month period ended June 30, 2018. The \$2.8 million improvement in net results is primarily from a gain in fair value of warrant liability of \$4.1 million, offset by a loss in exchange rates of \$0.7 million, an increase in operating expenses of \$0.3 million and \$0.2 million movement in tax recovery.

Revenues

Our total revenue for the three-month period ended June 30, 2019 was \$194,000 as compared with \$168,000 for the same period in 2018, representing an increase of \$26,000. The 2019 revenue was comprised of \$8,000 in royalty revenue (2018 - \$nil), \$129,000 in product sales (2018 - \$nil), \$39,000 in sales commission and other (2018 - \$79,000) and \$18,000 in licensing revenue (2018 - \$89,000). The increase in total revenue in 2019 relates to the launch of product sales Macrilen™ (macimorelin) on July 23, 2018 in the US.

Operating expenses

Our total operating expense for the three-month period ended June 30, 2019 was \$3.8 million as compared with \$3.5 million for the same period in 2018, representing an increase of \$0.3 million. This increase arises primarily from a \$0.8 million increase in restructuring costs offset by a decline of \$0.4 million in research and development costs and \$0.1 million decline in general and administrative expenses. As discussed on page 4 of this Management's Discussion and Analysis, the June 2019 restructuring in Germany and the costs associated with efforts undertaken with Torreya in the second quarter of 2019 have led to increased costs which have mitigated the gains experience from cost controls instituted in late 2018.

Net finance income

Our net finance income for the three-month period ended June 30, 2019 was \$3.9 million as compared with a net finance income of \$0.7 million for the same period in 2018, representing an increase of \$3.2 million. This is primarily due to a \$4.1 million change in fair value of warrant liability. Such a non-cash change in fair value results from the periodic "mark-to-market" revaluation, which occurs through the application of our pricing model, to our outstanding share purchase warrants.

Results of operations for the six-month period ended June 30, 2019

For the six-month period ended June 30, 2019, we reported a consolidated net loss of \$4.7 million, or \$0.28 loss per common share, as compared with a consolidated net income of \$11.8 million, or \$0.72 income per common share (basic), for the six-month period ended June 30, 2018. The \$16.5 million decline in net results is primarily from a reduction of \$24.5 million in gross income and \$0.6 million decrease in net finance income, offset by a reduction of tax expense of \$6.6 million and operating expenses of \$1.9 million.

Revenues

Our total revenue for the six-month period ended June 30, 2019 was \$0.2 million as compared with \$24.8 million for the same period in 2018, representing a decline of \$24.6 million. The 2019 revenue was comprised of \$21,000 in royalty income (2018 - \$nil), \$129,000 in product sales (2018 - nil), \$45,000 in sales commission and other (2018 - \$169,000) and \$36,000 in licensing revenue (2018 - \$24.7 million). The decline in total revenue in 2019 relates to \$24.0 million cash payment received from executing the Macrilen™ (macimorelin) License and Assignment Agreement in January 2018.

Second Quarter MD&A - 2019

Operating expenses

Our total operating expense for the six-month period ended June 30, 2019 was \$6.8 million as compared with \$8.7 million for the same period in 2018, representing a decrease of \$1.9 million. This net decline arises primarily from a \$1.3 million reduction in selling costs, a \$1.2 million reduction in general and administration expenses, and a \$0.7 million reduction in research and development costs, offset by \$0.8 million increase in restructuring costs, \$0.4 million impairment in right to use asset and \$0.2 million write-off of other current assets.

While total operating costs incurred in the second quarter of 2019 increased by \$0.3 million (as discussed on page 7 of this Management's Discussion and Analysis) over the same period in 2018, our total operating expenses declined, in total, in the first quarter of 2019 by \$2.3 million, which was in-line with the expected impact of our cost control initiatives that were implemented in late 2018.

Net finance income

Our net finance income for the six-month period ended June 30, 2019 was \$2.0 million as compared with \$2.6 million for the same period in 2018, representing a decrease of \$0.6 million. This is primarily due to a \$0.7 million decline in gain due to foreign currency exchange rates and a \$0.1 million decline in other finance income, offset by \$0.2 million change in fair value of warrant liability.

Quarterly Consolidated Results of Operation

(in thousands, except for per share data)

	Three months ended			
	June 30, 2019	March 31, 2019	December 31, 2018	September 30, 2018
	\$	\$	\$	\$
Revenues	194	37	1,392	663
Net income (loss)	206	(4,911)	(5,126)	(2,509)
Net income (loss) per share [basic]*	0.01	(0.30)	(0.31)	(0.15)
Net income (loss) per share [diluted]*	0.01	(0.30)	(0.31)	(0.15)

(in thousands, except for per share data)

	Three months ended			
	June 30, 2018	March 31, 2018	December 31, 2017	September 30, 2017
	\$	\$	\$	\$
Revenues	168	24,658	178	241
Net loss	(2,602)	14,424	(484)	(9,631)
Net (loss) per share [basic]*	(0.16)	0.88	(0.03)	(0.61)
Net (loss) per share [diluted]*	(0.16)	0.87	(0.03)	(0.61)

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

Second Quarter MD&A - 2019

Historical quarterly results of operations and net (loss) income cannot be taken as reflective of recurring revenue or expenditure patterns of predictable trends, largely given the non-recurring nature of certain components of our historical revenues, due most notably to unpredictable quarterly variations in net finance income, which are impacted by periodic “mark-to-market” revaluations of our warrant liability and of foreign exchange gains and losses. In addition, we cannot predict what the revenues from royalties will be from the Macrilen™ (macimorelin) License and Assignment Agreement.

Use of Proceeds

We began 2019 with \$14.5 million in cash and cash equivalents. During the six-month period ended June 30, 2019, our operating activities consumed \$5.2 million, foreign exchange contributed \$0.3 million, and our investing activities provided \$0.1 million. As at June 30, 2019 we had \$9.7 million of cash and cash equivalents.

Liquidity and capital resources

Summary of cash flows:

(in thousands)

	Six months ended June 30,	
	2019	2018
Cash and cash equivalents - Beginning of period	14,512	7,780
Cash flows from operating activities:		
Net cash (used in) provided by operating activities	(5,176)	11,940
Cash flows from financing activities:		
Net cash provided by financing activities	4	—
Cash flows from investing activities:		
Net cash provided by investing activities	50	11
Effect of exchange rate changes on cash and cash equivalents	293	215
Cash and cash equivalents - End of period	9,683	19,946

Operating Activities

Cash (used by) operating activities totaled (\$5.2) million for the six months ended June 30, 2019, as compared to \$11.9 million provided by operating activities in the same period in 2018. In the six-month period ended June 30, 2019, the Company had net loss of \$4.7 million as compared with net income of \$11.8 million in the same period in 2018. In the first half of 2019, the Company did not have significant revenues, while, in the same period in 2018, the Company received a \$24.0 million cash payment from executing the Macrilen™ (macimorelin) License and Assignment Agreement in January 2018.

Financing Activities

Cash (used by) financing activities totaled \$4,000 for the six months ended June 30, 2019, as compared with \$nil in the same period in 2018. In 2019, the Company received \$314,000 from the exercise of warrants, options and deferred share units and paid \$310,000 in lease liabilities subsequent to adoption of IFRS 16 in January 2019.

Investing Activities

Cash provided by investing activities totaled \$50,000 for the six months ended June 30, 2019, as compared with \$11,000 provided by investing activities in the same period in 2018. In 2019, the Company received \$50,000 in restricted cash when it closed out certain banking arrangements, while in 2018, the Company sold certain property, plant and equipment for \$11,000.

Second Quarter MD&A - 2019

Common shares

As at June 30, 2019, the Company had 16,632,410 issued and outstanding common shares.

Warrants as June 30, 2019

	Warrants #	Exercise Price \$	Expiry date
March 2015 registered direct offering - Series A	28,144	1.07	March 10, 2020
December 2015 registered direct offering	2,331,000	7.10	December 13, 2020
November 2016 registered direct offering	945,000	4.70	May 1, 2020
	<u>3,304,144</u>		

Long-term incentive plan

There were 928,835 stock options and deferred share units (“DSUs”) outstanding at June 30, 2019; with exercise prices denominated in U.S. dollars (December 31, 2018 - 889,685). During the six-month period ended June 30, 2019, 110,859 of these securities were exercised, 150,000 DSUs were granted, no such securities were forfeited or expired (twelve-month period ended December 31, 2018 - none, 426,000 securities and 249,599, respectively).

Liquidity and capital resources

The Company has incurred significant expenses in its efforts to develop and co-promote products. Consequently, the Company has incurred operating losses and negative cash flow from operations historically and in each of the last several years except for the year ended December 31, 2018 when the Company earned revenue from the sale of a license for the adult indication of Macrilen™ (macimorelin) in the United States and Canada. As at June 30, 2019, the Company had an accumulated deficit of \$316 million. The Company also had a net loss of \$4.7 million for the six months ended June 30, 2019, and negative cash flow from operations of \$5.2 million.

The Company’s principal focus is on the licensing and development of Macrilen™ (macimorelin) and it currently does not have any other approved products. Under the terms of License and Assignment Agreement, Novo is funding 70% of the pediatric clinical trial submitted to the EMA and FDA, the Company’s sole development activity.

On March 12, 2019, the Company announced that its board of directors formed a special committee of independent directors (the “Special Committee”) to review strategic options available to the Company. The Special Committee has approved the engagement by the Company of a financial advisor that is working with management to assist the Special Committee and the board of directors in considering a wide range of transactions (including opportunities for the license of Macrilen™ (macimorelin) outside of the United States and Canada, or other monetization transactions relating to Macrilen™ (macimorelin).

Management has evaluated whether material uncertainties exist relating to events or conditions and has considered the following in making that critical judgment.

The ability of the Company to realize its assets and meet its obligations as they come due is dependent on earning sufficient revenues under the License and Assignment Agreement, developing opportunities for Macrilen™ (macimorelin) in the rest of the world, realizing other monetizing transactions, and raising additional sources of funding, the outcome of which cannot be predicted at this time. The revenue provided under the License and Assignment Agreement was \$21,000 for the six months ended June 30, 2019 and as at June 30, 2019, the Company had cash of \$9.7 million.

Furthermore, nearly all of the Company’s cash is held in AEZS Germany, our wholly owned German subsidiary. AEZS Germany is also the counter-party for any and all cash received from revenue earned under the License and Assignment Agreement. At the present time, the Company’s North American operations are financed through the repayment of intercompany liabilities by AEZS Germany to the Canadian parent company and its U.S. subsidiary. However, if and when current and medium term liabilities of AEZS Germany exceed the values ascribed to AEZS Germany’s assets, it may no longer be possible under applicable German solvency laws for such cash transfers to take place. Although the Company currently expects AEZS Germany to continue to transfer cash to the Company’s North American operations to finance operations in the Canadian parent company and its U.S. subsidiary, in an amount sufficient for the Company (absent other funding sources) to finance most of its North American obligations, through at least the remainder of 2019, there is

Second Quarter MD&A - 2019

significant risk that AEZS Germany's ability to make these transfers will become restricted. The Company expects to have secured additional financing prior to the end of 2019 from third party sources; however, there is no certainty that the Company will be successful in raising additional sources of cash.

The Company has some discretion to manage research and development costs, administrative expenses and capital expenditures in order to maintain its cash liquidity, however the Company will need to obtain equity or debt financing in 2019 in order to fund its ongoing operations. The outcome of these efforts is uncertain.

Management has assessed the Company's ability to continue as a going concern and concluded that additional capital will be required. There can be no assurance that the Company will be able to obtain equity or debt financing, or on terms acceptable to it. Factors within and outside the Company's control could have a significant bearing on its ability to obtain additional financing. As a result, management has determined that there are material uncertainties that may cast significant doubt upon the Company's ability to continue as a going concern.

Contractual obligations and contingencies

The Company is committed to various operating leases for its premises which are now accounted with the implementation of IFRS 16. Future payments in connection with service and manufacturing agreements, as at June 30, 2019, are as follows:

<i>(in thousands)</i>	Service and manufacturing
	\$
Less than 1 year	2,528
1 - 3 years	13
4 - 5 years	13
More than 5 years	24
Total	2,578

Contingencies

In the normal course of operations, the Company may become involved in various claims and legal proceedings related to, for example, contract terminations and employee-related and other matters.

Securities class action lawsuit

The Company's securities class action lawsuit pending in the U.S. District Court for the District of New Jersey, brought on behalf of shareholders of the Company alleges violations of the Securities Exchange Act of 1934 in connection with allegedly false and misleading statements made by the defendants between August 30, 2011 and November 6, 2014 regarding the safety and efficacy of Macrilen™ (macimorelin) and the prospects for the approval of the Company's New Drug Application for the product by the FDA. In February 2018, the U.S. court granted a motion for class certification in the case, and on May 30, 2019 the U.S Third Circuit Court of Appeals dismissed an appeal of that certification motion that had been brought by the Company. The Company considers the claims that have been asserted in the lawsuit to be without merit and is vigorously defending against them. The Company cannot, however, predict at this time the outcome or potential losses, if any, with respect to this lawsuit. The Company continues to believe that substantially all of the costs for its defense will be borne by the insurers who provide directors' and officers' liability insurance to the Company, subject to policy limits.

Other lawsuits

On December 21, 2018, the Company settled a dispute with its former President and Chief Executive Officer and with its former Senior Vice President, Chief Administrative Officer, General Counsel and Corporate Secretary with the Company agreeing to make a payment in the amount of \$775,000.

On November 5, 2018, the Company settled a dispute with Cogas Consulting, LLC with the Company agreeing to make a payment of \$625,000.

Financial Risk Factors and Other Instruments

The nature and extent of our exposure to risks arising from financial instruments, including credit risk, liquidity risk and market risk (share price risk) and how we manage those risks are described in note 15 to our condensed interim consolidated financial statements as at June 30, 2019 and for the three-month and six-month periods ended June 30, 2019 and 2018.

Related Party Transactions and Off-Balance Sheet Arrangements

As at June 30, 2019, other than employment agreements and indemnification agreements with management, there are no related party transactions, except those eliminated upon consolidation. As at June 30, 2019, we did not have any interests in special purpose entities or any other off-balance sheet arrangements.

Recent accounting pronouncements

The IASB continues to issue new and revised IFRS. A listing of the recent accounting pronouncements promulgated by the IASB and not yet adopted is included in note 5 to our audited annual consolidated financial statements for the year ended December 31, 2018 and in note 4 to our condensed interim consolidated financial statements as at June 30, 2019 and for the three months and six months ended June 30, 2019 and 2018.

Changes in Internal Controls over Financial Reporting

There have been no changes in our internal control over financial reporting during the three-month or six-month period ended June 30, 2019 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

The design of any system of controls and procedures is based in part upon certain assumptions about the likelihood of certain events. There can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions, including conditions that are remote.

Risk Factors and Uncertainties

An investment in our securities involves a high degree of risk. In addition to the other information included in this MD&A and in the related unaudited condensed interim consolidated financial statements, investors are urged to carefully consider the risks described below and under the caption “Risk Factors and Uncertainties” in our most recent Annual Report on Form 20-F for the year ended December 31, 2018, for a discussion of the various risks that may materially affect our business. The risks and uncertainties not presently known to us or that we currently deem immaterial may also materially harm our business, operating results and financial condition and could result in a complete loss of your investment.

The following updates and supplements the risk factors previously disclosed in the Annual Report on Form 20-F.

We may not be able to continue as a going concern if we do not obtain cash from AEZS Germany to fund our North American operations and we do not obtain additional financing.

The Company has incurred significant expenses in its efforts to develop and co-promote products. Consequently, the Company has incurred operating losses and negative cash flow from operations historically and in each of the last several years except for the year ended December 31, 2018 when the Company earned revenue from the sale of a license for the adult indication of Macrilen™ (macimorelin) in the United States and Canada.

The ability of the Company to realize its assets and meet its obligations as they come due is dependent on earning sufficient revenues under the License and Assignment Agreement, developing opportunities for Macrilen™ (macimorelin) in the rest of the world, realizing other monetizing transactions, and raising additional sources of funding, the outcome of which cannot be predicted at this time.

Second Quarter MD&A - 2019

Furthermore, nearly all of the Company's cash is held in AEZS Germany, our wholly owned German subsidiary. AEZS Germany is also the counter-party for any and all cash received from revenue earned under the License and Assignment Agreement. At the present time, the Company's North American operations are financed through the repayment of intercompany liabilities by AEZS Germany to the Canadian parent company and its U.S. subsidiary. However, if and when current and medium term liabilities of AEZS Germany exceed the values ascribed to AEZS Germany's assets, it may no longer be possible under applicable German solvency laws for such cash transfers to take place. Although the Company currently expects AEZS Germany to continue to transfer cash to the Company's North American operations to finance operations in the Canadian parent company and its U.S. subsidiary, in an amount sufficient for the Company (absent other funding sources) to finance most of its North American obligations, through at least the remainder of 2019, there is significant risk that AEZS Germany's ability to make these transfers will become restricted. The Company expects to have secured additional financing prior to the end of 2019 from third party sources; however, there is no certainty that the Company will be successful in raising additional sources of cash.

The Company has some discretion to manage research and development costs, administrative expenses and capital expenditures in order to maintain its cash liquidity, however the Company will need to obtain equity or debt financing in 2019 in order to fund its ongoing operations. The outcome of these efforts is uncertain.

Management has assessed the Company's ability to continue as a going concern and concluded that additional capital will be required. There can be no assurance that the Company will be able to obtain equity or debt financing, or on terms acceptable to it. Factors within and outside the Company's control could have a significant bearing on its ability to obtain additional financing. As a result, management has determined that there are material uncertainties that may cast significant doubt upon the Company's ability to continue as a going concern.

In the event that we are not able to transfer cash from AEZS Germany to fund our North American operations and/or secure additional funding, we may be forced to curtail operations, cease operations altogether or file for bankruptcy.

Our most recent Annual Report on Form 20-F was filed with the relevant Canadian securities regulatory authorities in lieu of an annual information form at www.sedar.com and with the SEC at www.sec.gov, and investors are urged to consult such risk factors.