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. for the three and nine-month periods ended September 30, 2023. In this MD&A, "Aeterna Zentaris", "Aeterna", 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 the Company's unaudited condensed interim consolidated financial statements and the notes thereto as of September 30, 2023, and for the three and nine-month periods ended September 30, 2023 and 2022. Our unaudited condensed interim consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB") applicable to the preparation of interim financial statements, including *IAS 34 Interim Financial Reporting*.

The Company's common shares are listed on both The Nasdaq Capital Market ("Nasdaq") and on the Toronto Stock Exchange ("TSX") under the symbol "AEZS". All amounts in this MD&A are presented in thousands of United States ("U.S.") dollars, except for share and per share data, or as otherwise noted. This MD&A was approved by the Company's Board of Directors (the "Board") on November 8, 2023. This MD&A is dated November 8, 2023.

About Forward-Looking Statements

This document contains statements that may constitute forward-looking statements within the meaning of U.S. and Canadian securities legislation and regulations, and such statements are made pursuant to the safe-harbor provision of the U.S. Private Securities Litigation Reform Act of 1995. In some cases, these forward-looking statements can be identified by words or phrases such as "forecast", "may", "will", "expect", anticipate", "estimate", "intend", "plan", "indicate", "believe", "direct", or "likely", or the negative of these terms, or other similar expressions intended to identify forward-looking statements. In addition, any statements that refer to expectations, intentions, projections and other characterizations of future events or circumstances contain forward-looking information.

Forward-looking statements are based on the opinions and estimates of the Company as of the date of this MD&A, and they are subject to known and unknown risks, uncertainties, assumptions and other factors that may cause the actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking statements, including but not limited to the factors described under *Item 3, D. – "Risk factors"* in our most recent Annual Report on Form 20-F and those relating to: Aeterna's expectations with respect to the DETECT-trial (as defined below) (including the enrollment of subjects in the DETECT-trial, the application of the macimorelin growth hormone stimulation tests and the completion of the DETECT-trial); Aeterna's expectations regarding conducting pre-clinical research to identify and characterize an AIM Biologicals-based development candidate for the treatment of neuromyelitis optica spectrum disorder ("NMOSD"), as well as Parkinson's disease ("PD"), and developing a manufacturing process for selected candidates; Aeterna's expectations regarding conducting assessments in relevant PD models; the University of Queensland's undertaking a subsequent investigator initiated clinical trial evaluating macimorelin as a potential therapeutic for the treatment of amyotrophic lateral sclerosis ("ALS"), also known as Lou Gehrig's disease, and Aeterna's formulating a pre-clinical development plan for same; the commencement of Aeterna's formal pre-clinical development of AEZS-150 (as a potential therapeutic in chronic hypoparathyroidism as defined below) in preparation for a potential investigational new drug ("IND") filing for conducting the first in-human clinical study of AEZS-150; and the impacts associated with the termination of the license agreement with Novo Nordisk Healthcare AG ("Novo Nordisk" or "Novo"), as discussed below.

Forward-looking statements involve known and unknown risks and uncertainties and other factors which may cause the actual results, performance or achievements stated herein to be materially different from any future results, performance or achievements expressed or implied by the forward-looking information. Such risks and uncertainties include, among others: our reliance on the success of the pediatric clinical trial in the European Union and U.S. for Macrilen® (macimorelin); potential delays associated with the completion of the DETECT-trial; we may be unable to enroll the expected number of subjects in the DETECT-trial, and the result of the DETECT-trial may not support receipt of regulatory approval in childhood-onset growth hormone deficiency ("CGHD"); results from ongoing or planned pre-clinical studies of macimorelin by the University of Queensland or for our other products under

development may not be successful or may not support advancing the product to human clinical trials; our ability to raise capital and obtain financing to continue our currently planned operations; our dependence on the success of Macrilen® (macimorelin) and related out-licensing arrangements, including the continued availability of funds and resources to successfully commercialize the product; our ability to enter into additional out-licensing, development, manufacturing, marketing and distribution agreements with other pharmaceutical companies and to keep such agreements in effect; and our ability to continue to list our common shares on the Nasdaq or the TSX. These risk factors are not intended to represent a complete list of the risk factors that could affect the Company. These factors and assumptions, however, should be considered carefully. More detailed information about these and other factors is included under *Item 3, D. – "Risk factors"* in our most recent Annual Report on Form 20-F.

Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking statements, there may be other factors that cause results not to be as anticipated, estimated or intended. Many of these factors are beyond our control. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements. The Company does not undertake to update any forward-looking statements contained herein, except as required by applicable securities laws. New factors emerge from time to time, and it is not possible for the Company to predict all of these factors, or to assess in advance the impact of each such factor on the Company's business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statement.

Certain forward-looking statements contained herein about prospective results of operations, financial position or cash flows may constitute a financial outlook. Such statements are based on assumptions about future events, are given as of the date hereof and are based on economic conditions, proposed courses of action and management's assessment of currently available relevant information. The Company's management has approved the financial outlook as of the date hereof. Readers are cautioned that such financial outlook information contained herein should not be used for purposes other than for which it is disclosed herein.

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.

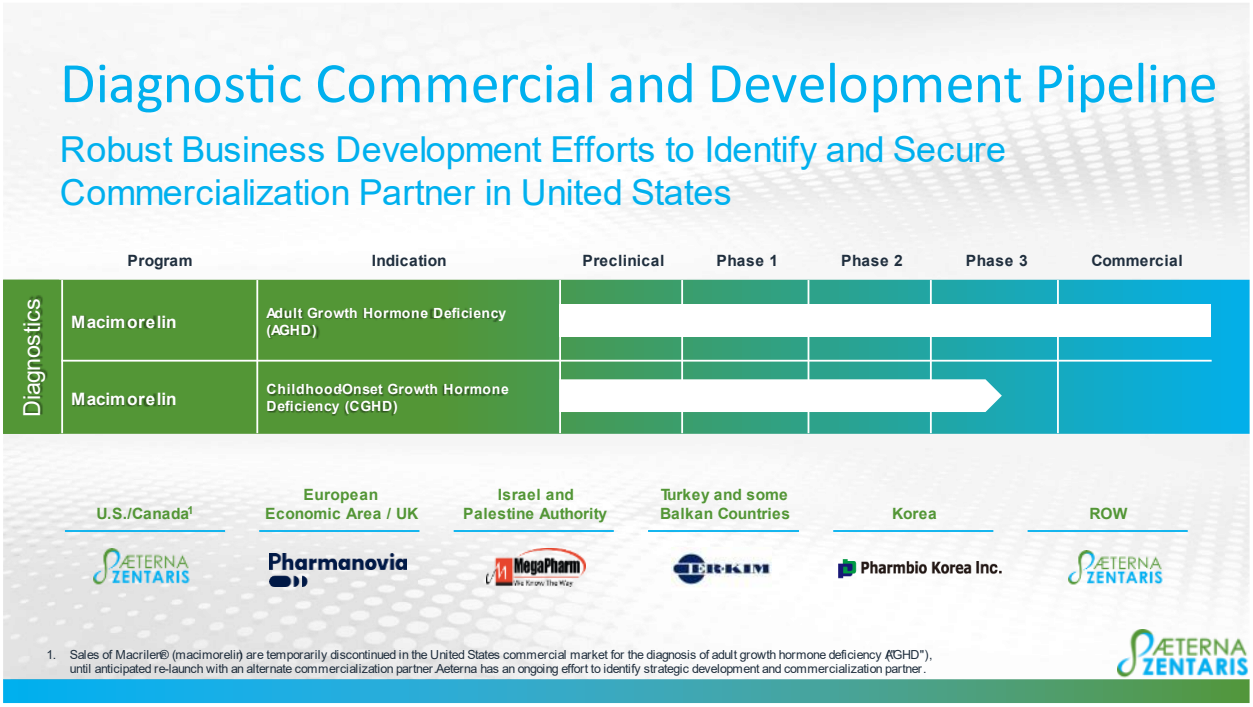
We are a reporting issuer under the securities legislation of all of the provinces of Canada, and our securities are registered with the U.S. Securities and Exchange Commission ("SEC"). We are therefore required to file or furnish continuous disclosure information, such as interim and annual financial statements, management's discussion and analysis, proxy or information circulars, annual reports on Form 20-F, material change reports and press releases with the appropriate securities regulatory authorities. Additional information about the Company and 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.zentaris.com, www.sedarplus.ca and www.sec.gov.

Company Overview

Aeterna Zentaris is a specialty biopharmaceutical company commercializing and developing therapeutics and diagnostic tests. The Company's lead product, Macrilen® (macimorelin), is the first and only U.S. Food and Drug Administration ("FDA") and European Medicines Agency ("EMA") approved oral test indicated for the diagnosis of patients with adult growth hormone deficiency ("AGHD"). Macimorelin is currently marketed under the tradename Ghryvelin™ in the European Economic Area and under the tradename "Macimorelin 60 mg granules for oral suspension in sachet" in the United Kingdom through an exclusive licensing agreement with Pharmanovia. The Company's several other license and commercialization partners are also seeking approval for commercialization of macimorelin in Israel and the Palestinian Authority, the Republic of Korea, Turkey and several non-European Union Balkan countries. The Company is actively pursuing business development opportunities for the commercialization of macimorelin in North America, Asia and the rest of the world. We are also leveraging the clinical success and compelling safety profile of macimorelin to develop the compound for the diagnosis of CGHD, an area of significant unmet need.

The Company is also dedicated to the development of therapeutic assets and has established a pre-clinical development pipeline to potentially address unmet medical needs across a number of indications, with a focus on rare and/or orphan indications, including, Neuromyelitis Optica Spectrum Disorder (NMOSD), Parkinson's Disease (PD), chronic hypoparathyroidism and ALS (Lou Gehrig's Disease).

Key Operational Developments



Macimorelin Commercialization Program

On March 15, 2023, with the Company's consent, Consilient Health Limited ("Consilient" or "CH") entered into an assignment agreement with Atnahs Pharma UK Ltd. (Pharmanovia) to transfer the current licensing agreement for the commercialization of macimorelin in the European Economic Area and the United Kingdom to Pharmanovia, as well as the current supply agreement pursuant to which the Company agreed to provide the licensed product. Also on March 15, 2023, the Company and Pharmanovia entered into an amendment agreement, pursuant to which the Company provided its acknowledgement and consent to the Assignment Agreement and agreed to certain amended terms which do not materially differ from the previous license and supply agreement with CH. To date, we have received total pricing milestone payments from CH of $0.5 million (€0.5 million) relating to Ghryvelin™/Macimorelin 60 mg approved list prices in the United Kingdom, Germany and Spain. We shipped initial batches of macimorelin (Ghryvelin™/Macimorelin 60 mg) to Consilient in the first quarter of 2022. Consilient launched the product meanwhile in the United Kingdom, Sweden, Denmark, Finland, Germany and Austria. More EU countries will follow pending re-imbursement negotiations. On April 19, 2022, we announced that the European Patent Office had issued a patent providing intellectual property protection of macimorelin in 27 countries within the European Union as well as additional European non-EU countries, such as the UK and Turkey, for macimorelin for use to diagnose GHD in adults. In the meantime, the related PCT patent application has been granted in Canada, Japan, South Korea, Eurasia and New Zealand.

On May 9, 2023, the USPTO issued patent US11,644,474 to the Company protecting the use of macimorelin for the diagnosis of GHD in pediatrics.

Since November 2020, Novo marketed macimorelin under the tradename Macrilen® through a license agreement and an amended license agreement (collectively the "Novo Amendment") for the diagnosis of AGHD. On August 26, 2022, the Company announced that Novo had exercised its right to terminate the Novo Amendment. Following a 270-day notice period, Aeterna regained full rights to Macrilen® in the U.S. and Canada on May 23, 2023, and the sales of Macrilen® are temporarily discontinued in the U.S. commercial market for the diagnosis of AGHD, until an anticipated re-launch with an alternate commercialization partner. The Company continues to actively strategize and seek alternate development and commercialization partners for Macrilen® in the U.S. and other territories. The decision to temporarily discontinue sales of Macrilen® in the United States does not have any impact on the sales and commercialization efforts in the UK and European Economic Area.

On June 25, 2020, we announced that we entered into an exclusive distribution and related quality agreement with MegaPharm Ltd., a leading Israel-based biopharmaceutical company, for the commercialization in Israel and in the Palestinian Authority of macimorelin, to be used in the diagnosis of patients with AGHD and in clinical development for the diagnosis of CGHD. Under the terms of the agreement, MegaPharm Ltd. will be responsible for obtaining registration to market macimorelin in Israel and the Palestinian Authority, while the Company will be responsible for manufacturing, product supply, quality assurance and control, regulatory support, and maintenance of the relevant intellectual property. In June 2021, MegaPharm Ltd. filed an application to the Ministry of Health of Israel for regulatory approval of macimorelin in Israel, which was approved in November 2022.

We entered into license and supply agreements with NK Meditech Ltd. ("NK"), a subsidiary of PharmBio Korea, effective November 30, 2021, and a distribution and commercialization agreement with ER Kim Pharmaceuticals Bulgaria Eood ("ER-Kim"), effective February 1, 2022. The agreements with NK are related to the development and commercialization of macimorelin for the diagnosis of AGHD and CGHD in the Republic of Korea, while the agreement with ER-Kim is related to the commercialization of macimorelin for the diagnosis of growth hormone deficiency in children and adults in Turkey and some non-European Union Balkan countries.

Macimorelin Clinical Program

On January 28, 2020, we announced the successful completion of patient recruitment for the first pediatric study of macimorelin as a growth hormone stimulation test for the evaluation of GHD in children. This study, AEZS-130-P01 ("Study P01"), was the first of two studies as agreed with the EMA in our Pediatric Investigation Plan (the "PIP") for macimorelin as a GHD diagnostic. Macimorelin, a ghrelin agonist, is an orally active small molecule that stimulates the secretion of growth hormone from the pituitary gland into the circulatory system. The goal of Study P01 was to establish a dose that can both be safely administered to pediatric patients and cause a clear rise in growth hormone

concentration in subjects ultimately diagnosed as not having GHD. The recommended dose derived from Study P01 is being evaluated in the pivotal second study, Study P02, on diagnostic efficacy and safety (the "DETECT-trial"). Study P01 was an international, multicenter study, which was conducted in Hungary, Poland, Ukraine, Serbia, Belarus and Russia. Study P01 was an open label, group comparison, dose escalation trial designed to investigate the safety, tolerability, and pharmacokinetic/pharmacodynamic ("PK/PD") of macimorelin acetate after ascending single oral doses of macimorelin at 0.25, 0.5, and 1.0 milligram per kilogram body weight in pediatric patients from 2 to less than 18 years of age with suspected CGHD. We enrolled a total of 24 pediatric patients across the three cohorts of the study. Per study protocol, all enrolled patients completed four study visits after successful completion of the screening period. At Visit 1 and Visit 3, a provocative growth hormone stimulation test was conducted according to the study sites' local practices. At Visit 2, the macimorelin test was performed, and following the oral administration of the macimorelin solution, blood samples were taken at predefined times for PK/PD assessment. Visit 4 was a safety follow-up visit at study end.

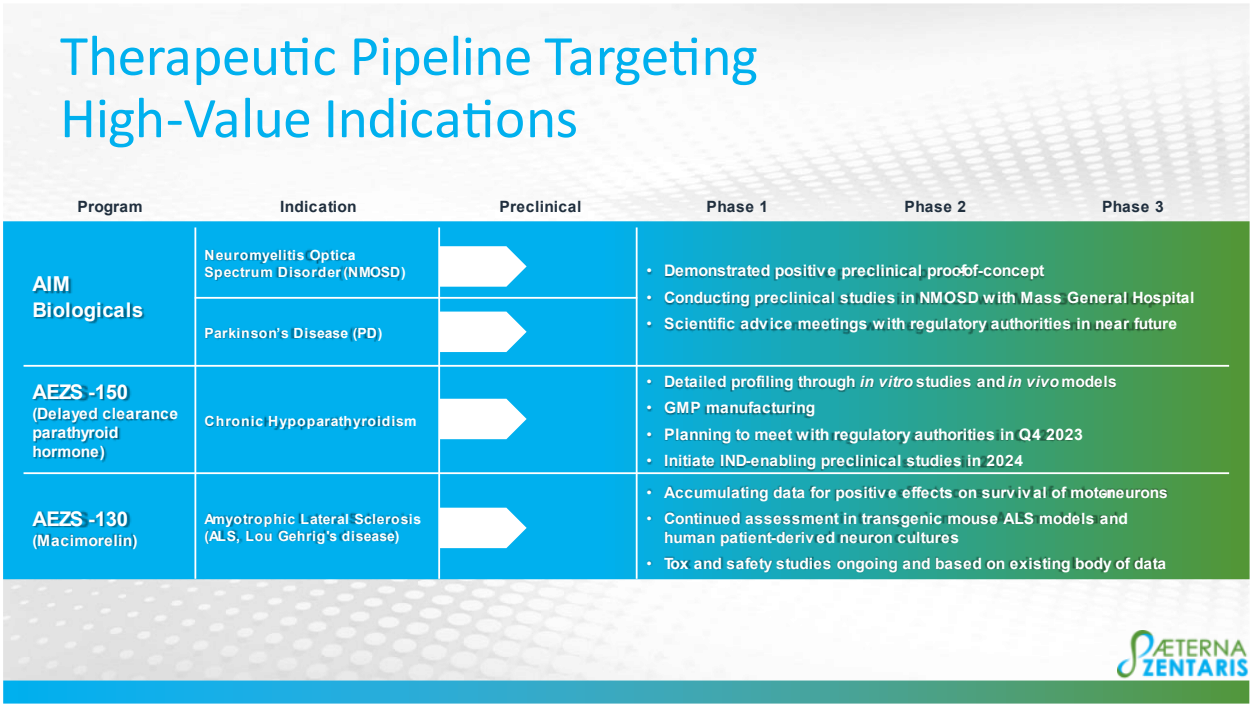
The final study results from Study P01 were published in the second quarter of 2020 indicating positive safety and tolerability data for use of macimorelin in CGHD, as well as PK/PD data observed in a range as expected from the adult studies.

On April 7, 2020, we announced the decision of the EMA to accept our modification request of our PIP as originally approved in March 2017, which covered the conduct of two pediatric studies and defined relevant key elements in the outline of these studies. We believe this EMA decision supports the development of one globally harmonized study protocol for test validation, specifically Study P02, which we expect to be accepted both in Europe and the U.S.

In late 2020, we entered into the start-up phase for the clinical safety and efficacy study, AEZS-130-P02 ("DETECT-trial"), evaluating macimorelin for the diagnosis of CGHD. The DETECT-trial is an open-label, single dose, multicenter and multinational study expected to enroll approximately 100 subjects worldwide (incl. sites in U.S: and EU), with at least 40 pre-pubertal and 40 pubertal subjects. The study design is expected to be suitable to support a claim for potential stand-alone testing, if successful. On April 22, 2021, the U.S. FDA Investigational New Drug Application associated with this clinical trial became active, (see: https://clinicaltrials.gov/ct2/show/NCT04786873), and on May 13, 2021, we announced the opening of the first clinical site in the U.S. Under the Novo Amendment, and following Novo's notice to terminate the Novo Amendment, Novo has funded DETECT-trial costs up to $10.1 million (€9.4 million). Any additional trial costs incurred over $10.1 million (€9.4 million) will be paid by Aeterna.

On January 26, 2022, we announced that the DETECT-trial had experienced unavoidable delays in site initiation and patient enrollment due to the rise of the Omicron variant in the COVID-19 pandemic. Furthermore, in February 2022, due to the Russian invasion of Ukraine, the clinical trial activities planned in both Russia and Ukraine were halted and consequently, no patients have been enrolled in either of these countries' clinical sites to date. On January 17, 2023, we provided a business update, highlighting that bolstered enrollment was expected by the engagement of an additional Clinical Research Organization (CRO) and the replacement of inactive countries and sites with three new countries (Armenia, Slovakia, and Turkey) as well as additional sites in the U.S. In March 2023, we received approval for and activated our first site in Slovakia and expect the approval and activation of sites in Armenia and Turkey to follow in Q4, 2023. We expect enrollment in our DETECT-trial to be completed around the end of 2023.

Pipeline Expansion Opportunities



AIM Biologicals: Targeted, highly specific autoimmunity modifying therapeutics for the potential treatment of neuromyelitis optica spectrum disorder (NMOSD) and Parkinson's disease

AIM Biologicals are based on a natural process during pregnancy, which induces immunogenic tolerance of the maternal immune system to the partially foreign fetal antigens. Fetal proteins are processed and presented on certain immunosuppressive major histocompatibility complex class I molecules to induce this tolerance. In an autoimmune disease the immune system is misdirected and targets the body's own protein. With AIM Biologicals, we aim to restore the tolerance against such proteins to treat autoimmune diseases. Our AIM Biologics program is focused on the rare and orphan indication NMOSD and on the second most common neurodegenerative disorder, Parkinson's disease.

In January 2021, we entered into an exclusive patent license and research agreement with the University of Wuerzburg, Germany, for worldwide rights to develop, manufacture, and commercialize AIM Biologicals for the potential treatment of NMOSD. Additionally, we have engaged Prof. Dr. Joerg Wischhusen from the University Hospital in Wuerzburg as well as neuro-immunologist Dr. Michael Levy from the Massachusetts General Hospital in Boston as consultants for scientific support and advice in the field of inflammatory central nervous system "CNS" disorders, autoimmune diseases of the nervous system, and NMOSD. In September 2021, we entered into an additional exclusive license with the University of Wuerzburg for early pre-clinical development towards the potential treatment of Parkinson's disease. On May 12, 2022 we announced positive pre-clinical results in an innovative mouse model of Parkinson's disease, where treatment with α-Synuclein specific AIM Biologicals showed a trend towards improved motoric function, as well as significant induction of regulatory T cells and rescue of substantia nigra neurons. The data were presented at IMMUNOLOGY2022™, the annual event of the American Association of Immunologists, held on May 6-10, 2022 in Portland, Oregon. On June 13, 2022, we announced that we had achieved proof-of-concept for the treatment of NMOSD in both *in-vitro* and in mouse models. These findings were presented at the 13th International Congress on Autoimmunity on June 10-13, 2022, in Athens, Greece. In October 2022, we entered into a research and development agreement with Massachusetts General Hospital (MGH) in Boston and Dr. Michael Levy, to conduct pre-clinical *ex-vivo* and *in-vivo* studies in NMOSD.

NMOSD is an autoimmune disease targeting the protein aquaporin 4, primarily found in optic nerves and the spinal cord. The disease leading to blindness and paralysis has a prevalence of 0.7-10 in 100,000, more common in persons with Asian or African compared to European ancestors, and nine times more prevalent among women compared to

men. NMOSD progresses in often life-threatening relapses, which are aggressively treated with high-dose steroids and plasmapheresis. Current treatment options include treatment with immunosuppressive monoclonal antibodies, which carries risk of serious infections. Our pre-clinical plans include expanding the already available proof-of-concept data for the treatment of NMOSD in both *in-vitro* and *in-vivo* assessments to select an AIM Biologicals-based development candidate; and manufacturing process development for the selected candidate.

Parkinson's disease is a neurological disease commonly associated with motoric problems with a slow and fast progression form. It is the second most common neurodegenerative disease affecting 10 million people worldwide. The hallmark of PD is the neuronal inclusion of mainly α-synuclein protein (αSyn) associated with the death of dopamine-producing cells. Dopaminergic medication is the mainstay treatment of PD symptoms. Up to now there is no pharmacological therapy available to prevent or delay disease progression. Alternate treatments, such as deep brain stimulation with short electric bursts, are being investigated for the treatment of symptoms. For the development of AIM Biologicals as potential PD therapeutics, Aeterna utilizes, among others, an innovative animal model on neurodegeneration by α-synuclein-specific T cells in AAV-A53T-α-synuclein Parkinson's disease mice, which has recently been published by University of Wuerzburg researchers. We are continuing *in-vitro* and *in-vivo* testing of antigen-specific AIM Biologics candidate molecules for the potential treatment of Parkinson's disease.

AEZS-150 - Delayed Clearance ("DC") Parathyroid Hormone ("PTH") ("DC-PTH") Fusion Polypeptides: Potential treatment for chronic hypoparathyroidism

On March 11, 2021, we entered into an exclusive license agreement with The University of Sheffield, United Kingdom, for the intellectual property relating to PTH fusion polypeptides covering the field of human use, which will initially be studied by Aeterna for the potential therapeutic treatment of chronic hypoparathyroidism ("HypoPT"). Under the terms of the exclusive patent and know-how license agreement entered into with the University of Sheffield, we obtained worldwide rights to develop, manufacture and commercialize PTH fusion polypeptides covered by the licensed patent applications for all human uses for an up-front cash payment, and milestone payments to be paid upon the achievement of certain development, regulatory and sales milestones, as well as low single digit royalty payments on net sales of those products and certain fees payable in connection with sublicensing. We will be responsible for the further development, manufacturing, approval, and commercialization of the licensed products. We also engaged the University of Sheffield under a research contract to conduct certain research activities to be funded by Aeterna, the results of which will be included within the scope of the license granted to Aeterna.

The researchers at the University of Sheffield have developed a method to increase the serum clearance time of peptides, which the Company is applying to the development of a treatment for HypoPT. HypoPT is an orphan disease where the PTH level is abnormally low or absent, with a prevalence per 100,000 of 37 in the U.S., 22 in Denmark, 9.4 in Norway, and 5.3 to 27 in Italy. Standard treatment is calcium and vitamin D supplementation. In consultation with The University of Sheffield, Aeterna has selected AEZS-150 as the lead candidate in its DC-PTH program. AEZS-150 is being developed to provide a weekly treatment option of chronic hypoparathyroidism in adults. Recent progress includes the successful verification and reproduction of previous in-vivo data from the University of Sheffield, in a rat model of hypoparathyroidism, as well as ongoing development of the manufacturing process for AEZS-150 with the Company's contract development and manufacturing organization, establishment of a master cell bank for a cell line expressing AEZS-150 and the development of a production process suitable for larger scale good manufacturing practices. Our next steps include working with The University of Sheffield to continue with in depth characterization of development candidate (*in-vitro* and *in-vivo*); meeting with regulatory authorities to formalize the pre-clinical development of AEZS-150 in preparation for a potential IND filing for conducting the first in-human clinical study.

AEZS-130 - Macimorelin Pre-clinical Program

On January 13, 2021, we entered into a material transfer agreement with Queensland University to provide macimorelin for the conduct of preclinical and clinical studies evaluating macimorelin as a therapeutic for the treatment of ALS. ALS is a rare progressive neurological disease primarily affecting the neurons controlling voluntary movement, leading to the disability to control movements such as walking, talking, and chewing. Most people with ALS die from respiratory failure, usually between 3-5 years after diagnosis. Currently there is no cure for ALS and no effective treatment to halt or reverse the progression of the disease. Ghrelin is a hormone with wide-ranging biological actions, most known for stimulating growth hormone release, which is demonstrating emerging evidence

as therapeutic for ALS. As a ghrelin agonist, macimorelin has the potential as a treatment for ALS, which is evaluated in this research collaboration.

The University of Queensland researchers have filed for supportive grants to conduct such clinical studies. In July 2022, we entered a research and option to license agreement with UniQuest Pty Ltd., the commercialization company of The University of Queensland (UQ), Brisbane, Australia, to advance the development of macimorelin as a potential therapeutic for the treatment of ALS. We have developed an alternative formulation suitable for use in ALS patients and are accumulating data for positive effects of AEZS-130 treatment on survival of motor-neurons. We are continuing to evaluate AEZS-130 in transgenic mouse ALS models as well as in human patient-derived neuron cultures to demonstrate the therapeutic potential of macimorelin in this indication. Our next steps include completion of the ongoing toxicology and safety studies to support treatment over prolonged periods and following potential achievement of proof-of-concept, scientific advice with regulatory authorities to discuss program development to support first in human studies.

Condensed Interim Consolidated Statements of Loss and Comprehensive Loss Data

(in thousands of US dollars, except loss per share)	**Three months ended September 30,**		**Nine months ended September 30,**	
	2023	**2022**	**2023**	**2022**
	$	**$**	**$**	**$**
Revenues	**3**	1,860	**4,377**	3,155
Expenses				
Cost of sales	**11**	14	**167**	106
Research and development	**2,751**	3,293	**9,692**	8,081
Selling, general and administrative	**1,791**	2,274	**6,130**	6,218
Total expenses	**4,553**	5,581	**15,989**	14,405
Loss from operations	**(4,550)**	(3,721)	**(11,612)**	(11,250)
Gain (loss) due to changes in foreign currency exchange rates	**(12)**	301	**(44)**	977
Interest income	**419**	-	**739**	-
Other finance costs	**(2)**	-	**-**	(3)
Net finance income	**405**	301	**695**	974
Loss before income taxes	**(4,145)**	(3,420)	**(10,917)**	(10,276)
Income tax recovery		-	**-**	-
Net loss	**(4,145)**	(3,420)	**(10,917)**	(10,276)
Other comprehensive loss:				
Foreign currency translation adjustments	**323**	(105)	**156**	(26)
Actuarial gain (loss) on defined benefit plans	**993**	(1,794)	**913**	6,231
Comprehensive (loss) income	**(2,829)**	(5,319)	**(9,848)**	(4,071)
Basic and diluted loss per share	**(0.85)**	(0.70)	**(2.25)**	(2.12)

Summarized Interim Consolidated Statements of Financial Position Data

(in thousands of US dollars)	**September 30, 2023**	**December 31, 2022**
	$	**$**
Cash and cash equivalents	**38,756**	50,611
Trade and other receivables and other current assets	**3,064**	4,648
Inventory	**91**	229
Restricted cash equivalents	**320**	322
Property and equipment	**255**	216
Total assets	**42,486**	56,026
Payables and accrued liabilities and income taxes payable	**3,406**	3,936
Current portion of provisions	**56**	45
Current portion of deferred revenues	**90**	2,949
Current portion of deferred gain	**529**	-
Lease liabilities	**147**	114
Non-financial non-current liabilities [(1)]	**11,980**	13,206
Total liabilities	**16,208**	20,250
Shareholders' equity	**26,278**	35,776
Total liabilities and shareholders' equity	**42,486**	56,026

(1) Comprised mainly of employee future benefits, provisions and non-current portion of deferred revenues.

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 consolidated financial statements are presented fairly and in accordance with IFRS applicable to interim financial statements. 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 the Company's condensed interim consolidated financial statements, were the same as those applied to the Company's annual consolidated financial statements for the year ended December 31, 2022.

Financial Risk Factors and Other Financial Instruments

The nature and extent of our exposure to risks arising from financial instruments, including credit risk, liquidity risk and market risk and how we manage those risks are described in note 24 to the Company's audited consolidated financial statements for the year ended December 31, 2022. There were no significant changes in the three and nine-month periods ended September 30, 2023, as compared to the December 31, 2022, disclosures.

Revenues

We generate revenue from license and collaboration agreements with customers (license fees, milestone revenue, royalties), the provision of development services, the sale of certain active pharmaceutical ingredients ("API"), semi-finished goods and finished goods, and from certain supply chain activities, which are comprised largely of oversight or supervisory support services related to stability studies or development activities carried out with respect to API batch production as specified in underlying contracts with customers.

(in thousands of US dollars, except percentages)	**Three months ended September 30,**			
	2023	**2022**	**Change**	**Change**
	$	**$**	**$**	%
Revenue				
License fees	**-**	605	(605)	-100%
Development services	**-**	1,202	(1,202)	-100%
Royalties	**3**	14	(11)	-79%
Supply chain	**-**	39	(39)	-100%
Total revenue	**3**	1,860	(1,857)	-100%

Our total revenue for the three-month period ended September 30, 2023, decreased by $1.9 million. The decrease was due to the termination of the Company's amended agreement with Novo Nordisk Healthcare in May 2023 and as a result, no license fee or development services revenue was recognized in Q3, 2023.

(in thousands of US dollars, except percentages)	**Nine months ended September 30,**			
	2023	**2022**	**Change**	**Change**
	$	**$**	**$**	%
Revenue				
License fees	**1,554**	831	723	87%
Development services	**2,741**	2,091	650	31%
Product sales	**29**	57	(28)	-49%
Royalties	**53**	57	(4)	-7%
Supply chain	**-**	119	(119)	-100%
Total revenue	**4,377**	3,155	1,222	39%

Our total revenue for the nine-month period ended September 30, 2023, was $4.4 million as compared to $3.2 million for the same period in 2022, representing an increase of $1.2 million. The increase is due to an increase in license fee revenue recognized of $0.7 million and development services revenue of $0.7 million relating to the Company's amended agreement with Novo Nordisk Healthcare, offset by a combined $0.2 million decrease in all other revenues.

Research and development expenses

The following table summarizes our research and development expenses incurred during the periods indicated:

(in thousands of US dollars, except percentages)	Three months ended September 30,			
	2023	**2022**	**Change**	**Change**
	$	**$**	**$**	%
Direct research and development expenses:				
Macimorelin pediatric DETECT-trial	**1,179**	974	205	21%
AEZS-130 – Macimorelin ALS	**318**	757	(439)	-58%
AEZS-150 – DC-PTH	**374**	587	(213)	-36%
Aim Biologics - Parkinson's Disease	**160**	152	8	5%
Aim Biologics - NMOSD	**255**	113	142	126%
Bacterial Vaccine Platform - Covid-19	**-**	111	(111)	-100%
Bacterial Vaccine Platform - Chlamydia	**-**	103	(103)	-100%
Additional programs	**77**	145	(68)	-47%
Total direct research and development expenses	**2,363**	2,942	(579)	-20%
Employee-related expenses	**314**	270	44	16%
Facilities, depreciation, and other expenses	**74**	81	(7)	-9%
Total research and development expenses	**2,751**	3,293	(542)	-16%

Research and development expenses decreased by $0.5 million for the three months ended September 30, 2023, compared to the three months ended September 30, 2022, primarily driven by a $0.6 million decrease in direct research and development expenses. Direct research and development expenses include expenses incurred under arrangements with third parties, such as contract research organizations, contract manufacturers, and consultants. The increase of $0.2 million in costs for the DETECT-trial is the result of an increase in the number of testing sites opened and the recruitment of patients for the DETECT-trial from the comparative period.

In addition to the DETECT-trial, the Company was actively working with its university research partners on the named pre-clinical programs. The fluctuation in spend on these programs from the prior year is primarily driven by the timing of various pre-clinical activities of these projects, in particular the ALS and DC-PTH projects which were in licensed in 2021.

Lastly, the Company ceased its development of both the COVID-19 and Chlamydia vaccine trials in Q1, 2023, resulting in the decrease in spending on these two projects for the three months ended September 30, 2023, compared to the three months ended September 30, 2022.

The following table summarizes our research and development expenses incurred during the periods indicated:

(in thousands of US dollars, except percentages)	Nine months ended September 30,			
	2023	**2022**	**Change**	**Change**
	$	**$**	**$**	%
Direct research and development expenses:				
Macimorelin pediatric DETECT-trial	**3,456**	2,521	935	37%
AEZS-130 – Macimorelin ALS	**1,966**	1,453	513	35%
AEZS-150 – DC-PTH	**1,339**	1,302	37	3%
Aim Biologics - Parkinson's Disease	**519**	502	17	3%
Aim Biologics - NMOSD	**722**	317	405	128%
Bacterial Vaccine Platform - Covid-19	**113**	305	(192)	-63%
Bacterial Vaccine Platform - Chlamydia	**221**	328	(107)	-33%
Additional programs	**164**	292	(128)	-44%
Total direct research and development expenses	**8,500**	7,020	1,480	21%
Employee-related expenses	**953**	888	65	7%
Facilities, depreciation, and other expenses	**239**	173	66	38%
Total research and development expenses	**9,692**	8,081	1,611	20%

Research and development expenses increased by $1.6 million for the nine months ended September 30, 2023, compared to the nine months ended September 30, 2022, primarily driven by a $1.5 million increase in direct research and development expenses. The $1.5 million increase in total direct research and development expenses for the nine months ended September 30, 2023, was primarily due to a $0.9 million increase in costs for the DETECT-trial. The Company has seen an increase in the number of testing sites opened and the recruitment of patients for the DETECT-trial leading to the increase in cost from the previous year when the Company was primarily focused on establishing testing sites for patient enrollment.

In addition to the DETECT-trial, the Company was actively working with its university research partners on the named pre-clinical programs. The increase in spend of $0.5 million for the nine-month period ended September 30, 2023 compared to the period ended September 30, 2022 for the AEZS-130, ALS program, relates to an increase in the Company's pre-clinical activities, primarily the ongoing toxicology and safety studies. The fluctuation in spending on the DC-PTH and the two Aim Biologic projects from the prior year is primarily driven by the timing of various pre-clinical activities and the advancement of these projects.

Lastly, the Company ceased its development of both the COVID-19 and Chlamydia vaccine trials in Q1, 2023, resulting in the decrease in spending on these two projects for the nine months ended September 30, 2023, compared to the nine months ended September 30, 2022.

Selling, general and administrative expenses

The following table summarizes our Selling, general and administrative expenses incurred during the periods indicated:

(in thousands of US dollars, except percentages)	**Three months ended September 30,**			
	2023	**2022**	**Change**	**Change**
	$	**$**	**$**	%
Selling, general and administrative expenses:				
Salaries & benefits	**717**	1,059	(342)	-32%
Insurance	**247**	416	(169)	-41%
Professional fees	**474**	124	350	282%
Other office & general expenses	**353**	675	(322)	-48%
Total selling, general and administrative expenses	**1,791**	2,274	(483)	162%

Our total Selling, general and administrative expenses for the three-month period ended September 30, 2023, were $1.8 million as compared to $2.3 million for the same period in 2022 representing a decrease of $0.5 million. This decrease arose primarily from a $0.3 million decrease in salaries and benefits, a $0.2 million decline in insurance costs and a $0.3 million decrease in other office & general expenses, offset by a $0.4 million increase in Professional fees. The decrease in salaries and benefits expense primarily relates to the timing of the non-cash issuance of deferred share units of $0.3 million to the Company's Board of Directors, which were issued in June 2023 for the current year entitlement, compared with $0.4 million issued in August 2022 for the entitlement in the prior year.

The following table summarizes our Selling, general and administrative expenses incurred during the periods indicated:

(in thousands of US dollars, except percentages)	**Nine months ended September 30,**			
	2023	**2022**	**Change**	**Change**
	$	**$**	**$**	%
Selling, general and administrative expenses:				
Salaries & benefits	**2,478**	2,097	381	18%
Insurance	**925**	1,258	(333)	-26%
Professional fees	**1,657**	1,642	15	1%
Other office & general expenses	**1,070**	1,221	(151)	-12%
Total selling, general and administrative expenses	**6,130**	6,218	(88)	10%

Our total Selling, general and administrative expenses for the nine-month period ended September 30, 2023, were $6.1 million as compared to $6.2 million for the same period in 2022 representing a decrease of $0.1 million. This decrease arose primarily from a $0.3 million decrease in insurance expenses and a $0.2 million decrease in other office & general expenses offset by a $0.4 million increase in salaries & benefits due primarily to the timing of 3 new full-time employees.

Net finance income

(in thousands of US dollars, except percentages)	Three months ended September 30,			
	2023	**2022**	**Change**	**Change**
	$	**$**	**$**	%
Gain (loss) due to changes in foreign currency rates	**(12)**	301	(313)	-104%
Interest income	**419**	-	419	100%
Other finance income (costs)	**(2)**	-	(2)	-100%
Net finance income	**405**	301	104	-104%

For the three-month period ended September 30, 2023, our net finance cost was $0.4 million as compared to a net finance income of $0.3 million for the three-month period ended September 30, 2022. This is primarily due to a $0.3 million decrease in our gain (loss) due to changes in foreign currency offset by an increase in interest earned on bank deposits of $0.4 million.

(in thousands of US dollars, except percentages)	Nine months ended September 30,			
	2023	**2022**	**Change**	**Change**
	$	**$**	**$**	%
Gain (loss) due to changes in foreign currency rates	**(44)**	977	(1,021)	-105%
Interest income	**739**	-	739	100%
Other finance income (costs)	**-**	(3)	3	-100%
Net finance income	**695**	974	(279)	-29%

Our net finance income for the nine-month period ended September 30, 2023, was $0.7 million as compared to $1.0 million for the same period in 2022, representing a decrease of $0.3 million. This is primarily due to a $1.0 million decrease in gain (loss) due to changes in foreign currency offset by an increase in interest earned on bank deposits of $0.7 million.

Net loss

For the three-month period ended September 30, 2023, we reported a consolidated net loss of $4.1 million, or $0.85 loss per common share (basic), as compared with a consolidated net loss of $3.4 million, or $0.70 loss per common share (basic) for the three-month period ended September 30, 2022. The $0.7 million increase in net loss is primarily due to a $1.9 million decrease in revenue offset by a reduction of $1.1 million in expenses and an increase of $0.1 million in finance income.

For the nine-month period ended September 30, 2023, we reported a consolidated net loss of $10.9 million, or $2.25 loss per common share (basic), as compared with a consolidated net loss of $10.3 million, or $2.12 loss per common share (basic) for the nine-month period ended September 30, 2022. The $0.6 million increase in net loss is primarily from a $1.6 million increase in total expenses and a $0.3 million decrease in net finance income off-set by a $1.2 million increase in revenue.

Selected quarterly financial data

(in thousands of US dollars, except for per share data)	Three months ended September 30, 2023	June 30, 2023	March 31, 2023	December 31, 2022
	$	$	$	$
Revenues	**3**	**2,246**	**2,128**	**2,485**
Net loss	**(4,145)**	**(2,518)**	**(4,255)**	**(12,451)**
Net loss per share (basic and diluted) [(1)]	**(0.85)**	**(0.52)**	**(0.88)**	**(2.56)**

(in thousands of US dollars, except for per share data)	Three months ended September 30, 2022	June 30, 2022	March 31, 2022	December 31, 2021
	$	$	$	$
Revenues	1,860	(222)	1,517	956
Net loss	(3,420)	(4,216)	(2,640)	(2,894)
Net loss per share (basic and diluted) [(1)]	(0.70)	(0.87)	(0.54)	(0.63)

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

Historical quarterly results of operations and net loss 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, the impact of costs associated with launching a number of significant preclinical research and development programs in 2021, and of foreign exchange gains and losses. In addition, we cannot predict what the revenues from royalties will be earned from licensing agreements.

The decrease in revenue in Q3, 2023, is due to the termination of the Company's amended agreement with Novo Nordisk Healthcare in May 2023 and as a result, no license fee or development services revenue was recognized in Q3, 2023.

The increase in net loss for the three-month period ended December 31, 2022, was due to the recording of an impairment charge on the Company's goodwill and intangible assets for an amount of $7,642 and $372 respectively.

The decrease in revenue and increase in net loss for the three months ended June 30, 2022 was driven by the reversal of revenue of $0.4 million in license fees and $0.8 million in development services which took place in Q2, 2022 as a result of a change in management's best estimate of additional costs associated to the DETECT-trial.

Cash flows

The following table shows a summary of our consolidated cash flows for the periods indicated:

(in thousands of US dollars)	Three months ended September 30,		Nine months ended September 30,	
	2023	2022	2023	2022
	$	$	$	$
Cash and cash equivalents – Beginning of period	**42,186**	58,157	**50,611**	65,300
Net cash used in operating activities	**(3,384)**	(3,945)	**(11,738)**	(10,256)
Net cash used in financing activities	**(33)**	(33)	**(113)**	(101)
Net cash used in investing activities	**(10)**	(5)	**(15)**	(53)
Effect of exchange rate changes on cash & cash equivalents	**(3)**	(358)	**11**	(1,074)
Cash and cash equivalents – End of period	**38,756**	53,816	**38,756**	53,816

Operating Activities

Cash used by operating activities totaled $3.4 million for the three-month period ended September 30, 2023, as compared to $3.9 million in the same period in 2022. This $0.5 million decrease in operating cash outflows is attributed primarily to receiving a $0.7 million income tax refund and a $0.5 million decrease in other non-cash outflows offset by $0.7 million increase in net loss.

Cash used by operating activities totaled $11.7 million for the nine-month period ended September 30, 2023, as compared to $10.3 million in the same period in 2022. This $1.4 million increase in operating cash outflows is attributed primarily to a $0.6 million increase in net loss and a $1.3 million increase in other non-cash outflows offset by a $0.5 million increase in income tax refunds.

Liquidity and capital resources

The Company's objective in managing capital, consisting of shareholders' equity, with cash and cash equivalents being its primary components, is to ensure sufficient liquidity to fund research and development costs, selling expenses, general and administrative expenses and working capital requirements. Over the past several years, we have raised capital via public and private equity offerings and issuances and have entered licensing and collaborative arrangements, consideration from which, together with proceeds from equity issuances, has been our primary source of liquidity. The capital management objective of the Company remains the same as that in previous periods. The policy on dividends is to retain cash to keep funds available, to finance the activities required to advance the Company's product development portfolio and to pursue appropriate commercial opportunities as they may arise. The Company is not subject to any capital requirements imposed by any regulators or by any other external source.

Adequacy of financial resources

Since inception, the Company has incurred significant expenses in its efforts to develop and co-promote products. Our current business focus is to: investigate further therapeutic uses of Macrilen™, expand pipeline development activities, further expand the commercialization of macimorelin in available territories and fund ongoing clinical trial costs. Consequently, the Company has incurred operating losses and has generated negative cash flow from operations 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™ in the U.S. and Canada. The Company expects to incur significant expenses and operating losses for the foreseeable future as it advances its product candidates through preclinical and clinical development, seeks regulatory approval, and pursues commercialization of any approved product candidates. We expect that our research and development costs will increase in connection with our planned research and development activities.

As of September 30, 2023, the Company had an accumulated deficit of $362.1 million. The Company also had a net loss of $10.9 million and negative cash flows from operations of $11.7 million for the nine-month period ended September 30, 2023. We believe that our existing cash on hand will be sufficient to fund our anticipated operating and capital expenditure requirements for at least the next 12 months. We plan to finance our future operations and capital expenditures primarily through cash on hand. We also believe that our existing cash on hand will be sufficient to fund our anticipated operating and capital expenditure requirements beyond the next 12 months and through 2025. We have based this estimate on assumptions that may prove to be wrong, and we could exhaust our capital resources sooner than we expect. We may also require additional capital to pursue in-licenses or acquisitions of other product candidates.

Our forecast of the period through which our financial resources will be adequate to support our operations is a forward-looking statement that involves risks and uncertainties, and actual results could vary materially as a result of a number of factors. Our future capital requirements are difficult to forecast and will depend on many factors, including:

- the terms and timing of any other collaboration, licensing, and other arrangements that we may establish;

- the initiation, progress, timing, and completion of preclinical studies and clinical trials for our current and future potential product candidates;
- our alignment with the FDA on regulatory approval requirements;
- the number and characteristics of product candidates that we pursue;
- the outcome, timing, and cost of regulatory approvals;
- delays that may be caused by changing regulatory requirements;
- the cost and timing of hiring new employees to support our continued growth;
- the ability to manage inflation, including rising interest rates and increased labor costs associated with attracting and retaining employees;
- the costs involved in filing and prosecuting patent applications and enforcing and defending patent claims;
- the costs of filing and prosecuting intellectual property rights and enforcing and defending any intellectual property-related claims;
- the costs of responding to and defending ourselves against complaints and potential litigation;
- the costs and timing of procuring clinical and commercial supplies for our product candidates; and
- the extent to which we acquire or in-license other product candidates and technologies.

Contractual obligations and commitments as of September 30, 2023

Significant expenditure contracted for at the end of the reporting period but not recognized as liabilities is as follows:

(in thousands of US dollars)	**TOTAL**
	$
Less than 1 year	6,857
1 - 3 years	131
4 - 5 years	36
More than 5 years	-
	7,024

In 2021, the Company executed various agreements including in-licensing and similar arrangements with development partners. Such agreements may require the Company to make payments on achievement of stages of development, launch or revenue milestones, although the Company generally has the right to terminate these agreements at no penalty. The Company may have to pay up to $38,127 upon achieving certain sales volumes, regulatory or other milestones related to specific products.

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.

Related Party Transactions and Off-Balance Sheet Arrangements

Other than employment agreements and indemnification agreements with our management, there are no related party transactions.

As of September 30, 2023, we did not have any interests in special purpose entities or any other off-balance sheet arrangements.

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 consolidated financial statements, investors are urged to carefully consider the risks described under the caption “Risk Factors” in our most recent Annual Report on Form 20-F for the year ended December 31, 2022, 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.

Our most recent Annual Report on Form 20-F was filed with the relevant Canadian and U.S. securities' regulatory authorities at www.sedarplus.com and with the SEC at www.sec.gov. Investors are urged to consult the risk factors in these documents.

Disclosure Controls and Procedures

The Chief Executive Officer and the Chief Financial Officer of the Corporation are responsible for establishing and maintaining our disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act and Canadian securities legislation). Our disclosure controls and procedures are designed to ensure that information required to be disclosed in the reports we file or submit under U.S. and Canadian securities legislation is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms, and that such information required to be disclosed by us in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including the Chief Executive Officer and the Chief Financial Officer, to allow timely decisions regarding required disclosures.

Any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objective and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. There have been no significant changes to our disclosure controls and procedures for the nine-month period ended September 30, 2023, that have materially affected, or are reasonably likely to materially affect, the disclosure controls and procedures.

Internal Controls over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act and Canadian securities legislation). Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS as issued by the IASB.

Our 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 Aeterna Zentaris; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with IFRS as issued by the IASB, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the issuer; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of Company 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.

Changes in Internal Controls over Financial Reporting

There have been no significant changes to our internal controls over financial reporting for the three-month period ended September 30, 2023, that have materially affected, or are reasonably likely to materially affect, internal controls over financial reporting.