

Management's Discussion and Analysis for the three and six-month periods ended July 31, 2023

(In thousands of Canadian dollars, except for units, share and per share amounts)

MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL REPORTING

This Management's Discussion and Analysis ("MD&A") for ChitogenX Inc. (previously Ortho Regenerative Technologies Inc., the "Corporation" or "ChitogenX") provides an overview of the Corporation's operations, performance and financial results for the second quarter and year-to-date periods of our 2024 fiscal year ended on July 31, 2023 and compares those of the same periods for the 2023 fiscal year. This MD&A is the responsibility of management and has been reviewed and approved by its Board of Directors. The Board of Directors is responsible for ensuring that management fulfills its responsibilities for financial reporting and is ultimately responsible for reviewing and approving the MD&A. The Board of Directors carries out this responsibility principally through its Audit Committee. The Aud it Committee is appointed by the Board of Directors and is comprised of financially literate directors. This report was reviewed by the Corporation's Audit Committee and approved by ChitogenX' Board of Directors on September 28, 2023.

This document should be read in conjunction with the unaudited interim condensed consolidated financial statements and notes thereto for the second quarter of our 2024 fiscal year ended on July 31, 2023, which have been prepared in accordance with International Financial Reporting Standards ("IFRS"). Further information about ChitogenX, is available online on SEDAR at www.sedar.com.

Unless otherwise noted, all amounts are presented in thousands of Canadian dollars, except for share and per share amounts.

Going concern

This MD&A has been prepared on a going-concern basis, which implies that the Corporation will continue realizing its assets and discharging liabilities in the normal course of business for the foreseeable future. As reflected in the unaudited interim condensed consolidated financial statements, the Corporation is still a clinical stage R&D company and has not yet achieved profitability. The Corporation has relied upon the issuance of debt and equity instruments to fund its operations. During the six-month period ended July 31, 2023, the Corporation incurred a netloss of \$0.3 million and used cash in operations of \$0.6 million. As at July 31, 2023, the Corporation had a negative working capital balance of \$3.4 million.

Accordingly, the ability of the Corporation to realize the carrying value of its assets and continue operations as a going concern is dependent upon its ability to obtain additional financing and ultimately on generating future profitable operations. Management anticipates that the continued advancement of its lead Ortho-R program as well as other R&D initiatives leveraging its strong IP portfolio will facilitate securing additional funds from existing and new investors. There is no assurance that any fund-raising initiatives will be successful. Factors within and outside the Corporation's control could have a significant bearing on its ability to obtain additional financing. The se interim unaudited financial statements as at and for the quarter ended July 31, 2023, do not include any adjustments related to the carrying values and classifications of assets and liabilities that would be necessary should the Corporation be unable to continue as a going concern.

Non-IFRS Financial Measures

This MD&A refers to certain non-IFRS measures. Management uses these non-IFRS financial measures for purposes of comparison to prior periods and development of future projections and earnings growth prospects. This information is also used by management to measure the results of ongoing operations and in analyzing our business performance and trends. These measures are not recognized measures under IFRS, do not have a standardized meaning prescribed by IFRS and are therefore unlikely to be comparable to similar measures presented by other companies. Rather, these measures are provided as additional information to complement those IFRS measures by providing further understanding of our results of operations from management's perspective. Accordingly, they should not be considered in isolation nor as a substitute for analysis of our financial information reported under IFRS. We use a non-IFRS measure, "EBITDA Loss", to provide supplemental measures of our operating performance and thus highlight trends in our core business that may not otherwise be apparent when relying solely on IFRS financial measures. EBITDA Loss is defined as net loss before (i) provision for (recovery of) income taxes; (iii) interest (income) expense and other financing costs; (iii) depreciation; and (iv) amortization of intangible assets.

Cautionary note regarding forward-looking statements

This MD&A may contain some forward-looking information as defined under applicable Canadian securities laws. Forward looking information can generally be identified using forward-looking terminology such as "may", "anticipate", "expect", "intend", "estimate", "continue" or similar terminology. Forward looking information is subject to various known and unknown risks and uncertainties, many of which are beyond the ability of the Corporation to control or predict, that may cause the Corporation's actual results or performance to be materially different from actual results and are developed based on assumptions about such risks and other factors set out herein.



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GLOSSARY TERMS

Calendar &	<u>Financial</u>	Corporate & O	<u>perations</u>
CDU	Convertible Debenture Units	API	Active Pharmaceutical Ingredient
EBITDA (L)	EBITDA Loss	CHGX	ChitogenX Inc.
FVA	Fair Value Adjustment		(Previously Ortho Regenerative Technologies Inc.
FY	Fiscal Year	CMC	Chemistry Manufacturing and Controls
G&A	General and Administrative	cGMP	current Good Manufacturing Practice
IR	Investors Relations	CMO	Contract Manufacturing Organization
ITC	Investment tax credits	CSE	Canadian Securities Exchange
NCDUs	Non-Convertible Debenture Units	FDA	US Food and Drug Administration
Q2-24	Second quarter FY-24	IND	Investigational New Drug application with the FDA
Q1-24	First quarter FY-24	MCRA	MCRA, LLC, a US based orthopedic specialty CRO
Q4-23	Fourth quarter FY-23	MRI	Magnetic Resonance Imaging
Q3-23	Third quarter FY-23	MTA	Material Transfer Agreement
Q2-23	Second quarter FY-23	NSERC	Natural Sciences and Engineering Research Council of
Q1-23	First quarter FY-23		Canada
Q4-22	Fourth quarter FY-22	ORTHO-C	Proprietary biopolymer for Articular Cartilage repair
Q3-22	Third quarter FY-22	ORTHO-M	Drawistan, higher proprietor, Dianal may for
SR&ED	Scientific Research and Experimental		Proprietary biopolymer for Proprietary Biopolymer for Meniscus repair
	Development Expenses		Weinseus repuii
R&D	Research and Development	ORTHO-R	Proprietary biopolymer for Rotator cuff repair
YTD	Year to date	ORTHO-V	Proprietary biopolymer for Osteoarthritis healing
YE	Year-end	OTCQB	US over-the-counter venture trading market
WA	Weighted Average	Polytechnique	Ecole Polytechnique de Montreal
W/C	Working Capital, defined as short-term assets	PRP	Platelet-rich plasma
	less short-term liabilities	Pre-RFD	Pre-Request for Designation

OVERVIEW OF THE BUSINESS AND BUSINESS STRATEGY

ChitogenX is a clinical stage biotech company incorporated under the Canada Business Corporations Act. The Corporation's head office, principal address and registered office is located at 16667 Hymus Blvd., Kirkland, Quebec, Canada and its wholly owned US subsidiary, OR4102022 Inc. has been incorporated on April 20, 2022 and is located at 12 Penns Trail in Newtown, Pennsylvania, USA. The Corporation's shares are publicly traded on the CSE under the symbol "CHGX", as well as on the United States OTCQB market under the symbol "CHNXF".

On September 7, 2022, The Corporation changed its corporate name from Ortho Regenerative Technologies Inc. to ChitogenX Inc. to better reflect the Company's expanded clinical and commercial opportunities, mission, values, and core competencies. The Corporation's proprietary Chitosan-based platform as well as ORTHO-R provide an efficacious, safe and reliable regenerative medicine delivery mechanism to aid in tissue healing and organ repair.

Regenerative Medicine Overview

The concept of regenerative medicine is to provide us with tools to return anatomy and physiology to a more normal appearance and behaviour. Although there are many definitions, of what constitutes regenerative medicine, the following is succinct:

Regenerative Medicine is an emerging interdisciplinary field of research and clinical applications focused on the repair, replacement or regeneration of cells, tissues or organs to restore impaired function resulting from any cause, including congenital defects, disease, trauma and aging. It uses a combination of several technological approaches that moves it beyond traditional transplantation and replacement therapies. These approaches may include, but are not limited to, the use of soluble molecules, gene therapy, stem cell transplantation, tissue engineering and the reprogramming of cell and tissue types.

Combinations of these approaches can 1) improve the natural healing process in areas of the body where it is most needed, 2) take over the function of a permanently damaged organ, 3) heal or repair a damaged organ or tissue, or 4) deliver healing "accelerators" chemicals that might inspire repair to specific damaged areas of the body.



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Regenerative medicine is a relatively new and rapidly expanding field that brings together experts in biology, chemistry, mat erials and computer science, engineering, genetics, robotics, and other fields to find solutions to some of the most challenging me dical problems faced by humankind. We believe ChitogenX is at the forefront of playing a critical role in enabling this rapidly expanding field of medicine.

The Global Regenerative Medicine Market was estimated at \$US9B market in 2021 and is projected to grow at 22.8% CAGR through 2030. It is one of the most dynamic markets in medicine today. The musculoskeletal and wound healing segment accounted for about 60% share of the regenerative medicine market in 2021. Biological, cell and pharmaceutical therapies are used in the treatment of muscu loskeletal damage to cartilage, tendon, and ligaments as well as skin and organ repair disease or damage. ChitogenX is well positioned to become the preferred regenerative medicine delivery system for this rapidly growing part of the industry.

Regenerative medicine is applicable in cardiovascular, oncology, dermatology, musculoskeletal, wound healing, ophthalmology, neurology, and others. The musculoskeletal and wound healing application segment accounted for over 60%share of the market in 2021 and are expected to grow at a CAGR of 30%+during the forecast period (2022-2030).

Problem & Solution

The delivery of a tissue scaffold, cellular or molecular therapy or any combination thereof makes a fundamental assumption; that the substance(s) will stay where they were placed and function as desired; if they wander off-target, the desired enhanced healing might not occur and furthermore, the potential exists for off-target effects.

Providing a reliable, biologically safe delivery mechanism that would allow the targeted body system to receive the regenerative material to aid in body system repair is, therefore, a mission-critical goal and a problem that requires solving for the regenerative medicine market to meet its projected growth estimates.

ChitogenX has acquired such a solution from the Polytechnique at the University of Montreal. Our patented muco-adhesive CHITOSAN based scaffold is a versatile biopolymer scaffold that can form novel **Drug/ Cell/ Biologic Combination** technology platforms. when combined with cells, pharmaceuticals, biologics such as Platelet-Rich Plasma (PRP), Bone Marrow Aspirate Concentrate (BMAC), or other regenerative medicine treatments where it potentially can enhance healing, augment, and accelerate the regeneration of new tissue in various potential indications.

PRODUCT POSITIONING:

For the regenerative medicine market ChitogenX's chitosan-based biopolymer is an efficacious, safe and reliable regenerative medicine delivery mechanism to targeted body systems to aid in tissue and organ repair.

CHITOSAN-BASED BIOPOLYMER: Key points of differentiation

Our Chitosan-based Biopolymer is formulated and designed to be universally combined with products to improve the healing of body tissues.

Our Chitosan-based Biopolymer is a patent-protected freeze-dried, lyo-protectant clot activating sticky biopolymer.

Unlike other natural biopolymer matrix such as Hyaluronic Acid (HA) or Collagen, the chitosan natural biopolymer molecules are positively charged and therefore electrostatically stick to the negatively charged soft tissues of the human body (skin, tendons, ligaments, meniscus). Our Chitosan-based Biopolymer has a fast coagulation onset, and with its muco-adhesive feature offer the unique benefit of significantly increasing the in-situ residency time of cell, pharmaceutical, or biologic implants for up to 6 weeks so that they may deliver their regenerative effects. Our CBB is therefore a perfect matrix system for delivering regenerative implants, that could be used in various musculoskeletal injury conditions as well as multiple other applications where the delivery of regenerative medicine such as blood, blood products, stem cells, pharmaceuticals or other molecules is desired.

INTELECTUAL PROPERTY

ChitogenX is the owner of 4 patent families. Our patent portfolio includes the following:

Family	Description	Patent Status
<u>No.1</u>	Clot-activated polymer composition for repairing the tissue of the subject, where the polymer composition adheres to the tissue and promotes cell proliferation, comprising platelet-rich plasma (PRP), a biopolymer, a salt, and a clot activator.	Issued – GloballyExpiry - 2030
<u>No.2</u> :	Freeze-dried polymer compositions for mixing with platelet rich plasma to form implants for tissue repair or compositions for therapeutic intra-articular injection.	Issued – Globally Expiry - 2035



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<u>No.3</u> :	Freeze-dried biopolymer scaffolds that form a hydrated microparticle dispersion after contact with blood or blood-derived fluids including	Issued/– Globally Expiry – 2035
	angiogenesis, cell chemotaxis, tissue remodeling, and extracellular matrix.	
<u>No. 4</u>	Lyophilized Polymer Scaffold compositions, processes for preparation and	Allowed in US and Canada
	use in anabolic wound repair.	• Expiry 2035

Notice of allowance of US and Canadian of patent family No 4. provides a huge boost to Company's attractiveness as a regenerative medicine scaffold. The notice of allowance provides for patent protection for our Chitosan-based Biopolymer scaffold on its own and in combination with a wide variety of therapeutic agents and protects for the use of ChitogenX's proprietary CBB scaffold in combination with other regenerative medicine approaches.

BUSINESS STRATEGY

Prioritize Development programs in the US and other jurisdictions with accelerated regulatory pathway.

Considering the significant bioactivity and potential to drive residency of our proprietary biopolymer, ChitogenX continues to assess its potential for therapeutic uses outside of programs that require a Biologics Licence Application (BLA) from FDA. The functionality of the proprietary chitosan framework could be used in numerous other applications which could potentially address high unmet needs with profound clinical consequences and a simplified regulatory pathway in the US and other jurisdictions.

We will continue to investigate combining ChitogenX's patented chitosan-based biopolymer with targeted delivery of numerous autologous and synthetic therapeutics, either developed internally, licensed, or secured through strategic partnerships with biologic and/or pharma companies.

We will determine the highest value programs through consultation with our scientific and business advisory board and find R&D or development partners for the highest value projects.

2. Leverage Polytechnique's partnership to secure non-dilutive grants to drive proof of concept in multiple indications for our Chitosan-Based Biopolymer

ChitogenX can secure non-dilutive research grants through its partnership with Polytechnique.

Meniscus

A first \$0.5 million grant has been secured to test the efficacy of our Chitosan-based Biopolymer/PRP Drug-Biologic Implant formulation, for meniscus repair. The efficacy of our product has already been demonstrated in an animal proof of concept study. Our contracted research veterinarian expert, with the help of a major arthroscopic instrumentation company, has recently completed the surgical procedures in 20 large animals and we expect to announce the results of this pre-clinical trial by Q3-2023 (calendar).

In February 2023, the Corporation successfully confirmed soft-tissue residency properties of its Chitosan-based Biopolymer/PRP based biopolymer matrix, as it reported on the first objective of this study. The meniscus tear repair study confirmed the presence of tissue adherence and the aggregation of PRP regenerative cells imbedded in the tear. It represents the second orthopedic CBB/PRP soft tissue proof of concept application to be successfully confirmed following similar results generated in a previously reported similar study for rotator cuff tear repair. ChitogenX intends to file an IND with the FDA to commence human clinical trials within 12 months following completion of the meniscus study.

Tissue Healing

In February 2023, ChitogenX and its scientific partner Polytechnique secured a \$3.5 million grant from NSERC and Prima Québec. The 4-year grant will be used to advance scientific development, expand the scope of indications, develop new biomaterials for regenerative medicine and accelerate the commercial readiness of the Corporation's flagship CBB technology platform.

3. Leverage IP portfolio and growing scientific evidence of efficacy and safety, to attract development partners to accelerate and contribute to funding our commercial development programs.

We intend to leverage the attractive growth potential of the regenerative medicine market to form development partnerships. We are currently evaluating opportunities for fast-track regulatory programs with potential 510(k) pre-market submissions in the US and commercial readiness in other jurisdictions.

We expect to soon announce our plans to take full advantage of the broad clinical and commercial opportunities now available to the company.

4. Complete Rotator Cuff Tear Repair U.S. phase I/II clinical trial program to establish a proof of concept for our regenerative platform



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ChitogenX has recently concluded enrolment of its U.S. Phase I/II rotator cuff tear repair clinical trial entitled: <u>A Blinded, Randomized Controlled Study Investigating the Safety of Ortho-R® for Rotator Cuff Repair Compared with Standard of Care: ORT-2020-01 (Ortho-R® <u>Study</u>). The We made this decision to optimize our return on the investment made in this trial. It will be our first clinical proof of con cept demonstrating the safety of our ORTHO-R. 20 subjects were enrolled prior to concluding enrollment. (See "Subsequent Events") All study activities will be completed by June 2024 as per the original clinical trial protocol following completion of the clinical follow-up and safety analysis for the 20 recruited subjects. Study results are expected during the fall of 2024. The Company, and its clinical and regulatory advisors believe that concluding subject enrollment at this stage still allows for key study objectives to be met.</u>

ORTHO-R is formulated and designed to improve the healing of body tissues beginning with sports and occupation related injuries to tendons, meniscus, and ligaments.

ORTHO-R is a patent-protected freeze-dried formulation of a biopolymer, a lyo-protectant and a clot activator. ORTHO-R is solubilized in platelet-rich plasma ("PRP") to form an injectable combination of the chitosan scaffold and the PRP-biologic, and an FDA designated bioactive implant that coagulate and stick to tissue after implantation.



In vitro testing has allowed the Corporation to identify specific formulations that meet the following criteria for optimal commercial products:

- (i) rapid and complete solubilization in PRP;
- (ii) biopolymer-PRP mixtures having mucoadhesive paste-like handling properties desired by surgeons;
- (iii) biopolymer-PRP mixtures that coagulate rapidly to form soft tissue-adherent Drug-Biologics hybrid implants;
- (iv) biopolymer-PRP biologics implants that are mechanically stable and resist platelet-mediated clot retraction; and
- (v) dispersion of the biopolymer in the implants that is homogenous for optimal biodegradability.

The polymer-biologics hybrid mix, designated as drug/biologic combination product by the FDA, but may be considered a medical device by other regulatory jurisdictions, can be directly applied at the site of injury by a surgeon during a routine operative procedure without significantly extending the time of surgery and without further intervention. A US FDA IND was granted in December 2021, to start our proof-of-concept phase I/II Rotator Cuff Tear Repair clinical trial at 10 U.S. sites.

The use of ORTHO-R as an adjunct to standard of care anchoring/suturing techniques produced promising histological findings in small and large animal experimental models, which is hoped to translate to faster and superior rotator cuff tear repair in humans. No a dverse events were found in any of the above-mentioned animal studies nor in the first five patients of the phase I/II ongoing clinical trial, which suggests a high level of safety. Progress made during the recent quarters has set the stage for achievements of major corporate/regulatory/strategic milestones over the current and upcoming calendar years.

Market Opportunity: (Source:Pearl Diver HealthCare Research, iData Research.) for the first clinical application in rotator cuff repair

Close to 700,000 shoulder rotator cuff repairs are performed in North America every year with a high 20% to 90% failure rate. ChitogenX has already initiated its FDA designated Phase I/II clinical trial giving it the regulatory lead in the U.S. for launching the first FDA approved drug/biologic combination for augmenting the performance of the standard of care surgical shoulder rotator cuff repair.

The orthopedic and sports medicine soft tissue repair market is a \$6B+ global market. The ORTHO-R product is first targeting the following soft tissue repair indications: 1) Rotator cuff tear repair: 4M injuries and 700K surgeries/year (50%+ failure rate) in USA alone, 2) Tendinopathy, 11M injuries/year, and 3) Meniscus tear repair: 1.2M injuries/year and 200K+ surgeries/year (40% failure rate) in USA alone. Standard of care for these injuries is surgery alone. The orthopedic community is looking for better treatments to improve p atient outcomes and reduce procedure failure rate.

This market opportunity is further enhanced by the fact that surgeons all over the world know that soft tissue such as ligaments, tendons and meniscus are not well vascularized and thus when repaired with the standard of care (sutures, anchors, and staples) results in healing principally with scar tissue which is more fragile and susceptible to re-tear than native tissue. Given the belief by many that platelet rich plasma (PRP) improves the quality of tissue healing, surgeons have vocalized a desire to find a way to make PRP resident to the surgical repair site, so that the PRP can trigger the tissue repair cascade to these troublesome non-vascularized soft tissues. Surgeons have been using PRP for over a decade but are frustrated by the inability for the PRP alone to establish sufficient residency time on the surgical repair site due to its highly liquid nature. ORTHO-R is specifically designed to overcome the insufficient residency time issue due to its unique and





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patented composition. Therefore, once approved, a ready-made and very large market can be rapidly satisfied thus reducing go to market investment by the Corporation, development partner or acquirer of our technology.

ChitogenX Overall Value Proposition

Technology Platform	Chitosan-Base Biopolymer: Unique	Great Value Creation & Exit
	Drug / Biologics / Device Combination	Potential
	Product	
 Proprietary, novel, multi-indications, second generation, de-risked platform Strong intellectual property protection in four patent families Addresses significant unmet medical need in large and rapidly growing regenerative medicine market First solution to increase residence time of PRP 	 In the U.S. regulatory lead as the first PRP based drug/biologic product in human trials Streamlined development program based on mix of simple regulatory pathway, high unmet medical need and value of targeted market/ Advantageous manufacturing costs 	Recent regenerative medicine transactions support higher valuation for the company Concluded recruitment, of proof of concept safety trial. study activity completed in 6/2024 Multiple potential
to augment regeneration of new tissue Validated mode of action, safe and easy to use solution Rapid coagulation, avoids shrinkage of implant, potentially adheres to multiple tissues Demonstrated efficacy in large animal model (decreased tendon gap & improved bone structure)	 Uses autologous PRP which can be sourced quickly and easily during surgery Lyophilized chitosan provides long shelf life 	regenerative medicine applications Experienced management, Board and Clinical Advisory Board with history of value creation

Q2-24 CORPORATE HIGHLIGHTS (May 1 to July 31, 2023)

- On June 5, 2023 ChitogenX closed a \$0.3 million second tranche of its previously announced non-brokered private placement offering of units. The second tranche of the offering consists of gross cash proceeds of \$41 and \$247 in debt conversions from holders of convertible debentures which matured on May 1, 2023.
- On June 15, 2023 the ChitogenX announced it had retained the services of the Bruder consulting & Venture group to broaden and accelerate ongoing strategic development partnership discussions.

Events Subsequent to the end of the quarter

- On September 26, 2023, the Corporation announced that it has concluded enrolment of its U.S. Phase I/II rotator cuff tear repair phase I/II clinical trial. All study activities are expected to be completed by June 2024 as per original clinical trial protocol following completion of the clinical follow-up and safety analysis for 20 recruited subjects. Study results are expected during the summer of 2024.
- On September 28, 2023, ChitogenX announced that it has received a notice of allowance for a key patent in both the US and Canada. The new patent make the Corporation's Chitosan based biopolymer scaffold proprietary without the need for it to be combined with Plasma Rich Platelets or other blood products as was previously the case. The notice of allowance provides for 1) proprietary chitosan scaffold on its own and in combination with a wide variety of therapeutic agents, 2) protects for the use of ChitogenX' proprietary scaffold in combination with biologics in addition to previous PRP and blood products applications, 3) provides huge boost to the Company's attractiveness as a regenerative medicine with a proprietary scaffold, and 4) positioned the Corporation to leverage opportunities for commercial readiness and fast-tracking regulatory programs with potential 510(k) pre-market submissions in the US.



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SELECTED FINANCIAL DATA

The following table sets forth financial information relating to the periods indicated and should be read in conjunction with the July 31, 2023 unaudited condensed consolidated interim financial statements.

	Q2-24	Q2-23	Chang	ge	YTD-24	YTD-23	Chang	ie
	\$	\$	\$ ¹	% ²	\$	\$	\$ ¹	% ²
Expenses								
R&D	195	444	(249)	-56%	613	1,107	(494)	-45%
G&A	345	484	(139)	-29%	929	1,051	(122)	-12%
Share-based compensation	44	162	(118)	-73%	100	204	(104)	-51%
Financial	124	349	(225)	-64%	463	700	(237)	-34%
	708	1,439	(731)	-51%	2,105	3,062	(957)	-31%
FVA embedded derivative	(299)	(78)	(221)	283%	(1,742)	(812)	(930)	115%
FVA on warrants	-	2	(2)	-100%	(51)	(37)	(14)	38%
Net (Loss) and Comprehensive loss	(409)	(1,363)	954	-70%	(312)	(2,213)	1,901	-86%
(Loss) per share								
WA number of shares outstanding	77,090,687	51,038,776	26,051,911	51%	64,209,464	45,423,158	18,786,306	41%
Basic and diluted loss per share	-0.01	-0.03	0.02	-80%	-0.00	-0.05	0.04	-90%

^{1.} A positive variance represents a negative impact to net loss and a negative variance represents a positive impact to net loss

EBITDA(L) Reconciliation (See "Management's Responsibility for Financial Reporting" – "Non-IFRS Financial Measures")
The following table provides a reconciliation of net loss to EBITDA(Loss) for the Q2-24 and YTD-24 periods as compared to the prior year.

	Q2-24	Q2-23	Chan	ge	YTD-24	YTD-23	Char	ige
	\$	\$	\$ 1	% ²	\$	\$	\$1	% ²
Net loss	(409)	1,363)	954	-70%	(312)	(2,213)	1,901	-86%
Add (deduct)								
Financial	124	349	(225)	-64%	463	700	(237)	-34%
FVA embedded derivative	(299)	(78)	(221)	283%	(1,742)	(812)	(930)	115%
FVA on warrants	-	2	(2)	-100%	(51)	(37)	(14)	38%
Depreciation	3	6	(3)	-50%	6	12	(6)	-50%
Amortization	8	8	-	0%	16	16	-	0%
EBITDA (L)	(573)	(1,076)	503	-47%	(1,620)	(2,334)	714	-31%

^{1.} A positive variance represents a negative impact to net loss and a negative variance represents a positive impact to net loss

^{2.} Percentage change is presented in relative values.

Selected items	Q2-24 vs Q2-23 and YTD-24 vs YTD-23
Revenues	CHITOGENX is a clinical stage company. No revenues were generated during each of YTD-24 and YTD-23
R&D expenses	 R&D expenses include internal and external expenses. Internal expenses represent mostly salaries and consulting fees for our staff. External expenses include all development costs related to work performed under our Collaborative R&D contract with Polytechnique as well as specific manufacturing activities, regulatory, pre-clinical and clinical work to advance our pipeline. R&D expenses are presented net of R&D tax credits (ITCs) recoverable from the provincial government for Scientific Research and Experimental Development (SR&ED) programs, and net of government grants. R&D expenses are also presented net of grants which are amortized over their respective term.
	 R&D expenses for Q2-24 and YTD-24 were significantly lower than in the prior year periods. The respective decreases were 56% and 45%. R&D expenses decreased due to the timing and nature of R&D activities, the condusion of enrolment for the Corporation's Phase I/II rotator cuff trial, as well as the use of R&D grants which serve to fund a large portion of our R&D activities since the \$3.4 million INSERC R&D grant was secured in Q1-24.

^{2.} Percentage change is presented in relative values





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	• G&A expenses include salaries and consulting fees paid to non-R&D staff, professional fees, conferences, travel expenses, as well as investors relation activities.
G&A expenses	• G&A spending in Q2-24 were down compared to Q2-23 at \$0.3 million compared to \$0.5 million. G&A spending for the YTD-24 period were down 12% compared to YTD-23.
	• G&A in Q2-23, and YTD-23 included a severance charge for the termination of our previous CEO. G&A in YTD-24 included a special charge for salary deferral, as management opted to defer salaries for preserving cash to support R&D operations.
Share-based	• Represents the expense related to issuing stock options to staff, consultants and board members. Variances for the comparative quarters include non-recurrent grant to a new Board member as well contractual vesting for members of management on options already outstanding.
compensation (SBC)	 SBC expenses in Q2-24 were down 73% compared to Q2-23. The YTD decrease was 51%. SBC expenses during FY-24 were impacted by the decrease in the Corporation's share price when compared to the strike price of options outstanding.
	• Financial expenses include interest on loans, notes, non-convertible and convertible debentures, as well as effective interest on debentures as well as foreign exchange gain or loss.
Financial expenses	• Financial expenses were down 64% and 34% respectively for Q2-24 and YTD-24 period compared to Q2-23, and YTD-23. The reduction was due to 1) partial repayment of the Q4-22 bridge financing, as well as conversion of \$2.3 million of CDUs into the May/June 2023 Private Placement.
	On October 19, 2022, the Corporation announced the amendment of three series of CDUs to extend their respective maturity dates.
Fair Value Adjustment ("FVA") of Embedded	• An Embedded derivative comprised of the conversion options classified as liability was created following the amendment of the CDUs during FY-22. Starting Q4-22, any change in the Fair Value of the Conversion Option of the CDUs ("FVCO") have been recorded as a financial expense.
Derivative	 During the Q2-24 and Q2-23 periods, the change in the FVCO, led to a Fair Value Adjustment ("FVA") of the conversion option representing a \$0.3 million and \$0.1 million gain. Such gain was \$1.7 million and \$0.8 million respectively for the YTD-24 and YTD-23 periods.
Fair Value Adjustment ("Fair	• The terms of the warrants issued as part of the December 2022 Bridge financing led to the creation of a warrant liability.
Value Adjustment") on warrants	• During each of Q2-24 and Q2-23, as well as YTD-24 and YTD-23 the revaluations of the Warrants' fair value were nominal.
Net Income (Loss) for the period	 Due to the significant reduction in expenses as well the gain on re-evaluating the Fair Value of the Conversion Option on the debentures, the Corporation net loss decreased significantly during the FY-24 periods compared to the corresponding periods in FY-23. Net loss in Q2-24 was \$0.4 million, down 70% compared to Q2-23, while net loss for the YTD-24 was down 86% compared to YTD-23.
EBITDA (L)	 After eliminating the impact of the financial expenses, as well as depreciation and amortization, but also after eliminating the impact of the combined gain on revaluation of the CDU embedded derivative and warrant liability, our EBITDA loss during Q2-24 was \$0.6 million compared to \$1.1 million for Q2-23, representing a 47% decrease, and reflecting the overall decrease in expenses described above. The reduction in EBITDA loss for the YTD-24 period was \$0.7 million, or 31% decrease compared to YTD-23.



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(In thousands of Canadian dollars, except for units, share and per share amounts)

SELECTED BALANCE SHEET HIGHLIGHTS

The following table sets forth the financial information related to the Corporation's statements of financial position for the periods indicated and should be read in conjunction with the unaudited condensed consolidated financial statements for period ended July 31, 2023.

As at,	July 31, 2023	January 31, 2023	Chan	ge
	\$	\$	\$ 1	% ²
Cash	33	108	-75	-69%
Prepaids and deposits	122	122	0	0%
Intangible Assets	283	299	-16	-5%
Total assets	700	738	-38	-5%
Trade accounts payable and accrued liabilities	2,237	1,793	444	25%
Notes	480	480	0	0%
Convertible Debentures - Short term	640	2,681	-2,041	-76%
Embedded derivative (Short-term conversion option)	-	1,098	-1,098	-100%
Convertible Debentures - Long term	2,491	2,363	128	5%
Embedded derivative (Long-term conversion Option)	352	996	-644	-65%
Total liabilities	6,610	10,581	-3,971	-38%
Common shares	13,780	10,357	3423	33%
Warrants	2,877	2,406	471	20%
Contributed surplus	2,902	2,551	351	14%
Deficit	(25,469)	(25,157)	-312	1%

^{1.} A positive variance represents a positive impact to our balance sheet and a negative variance represents a negative impact to our balance sheet.

^{2.} Percentage change is presented in relative values

Selected items	Q2-24 vs YE-23
Cash	• Cash at the end of Q2-24 was nil compared to \$0.1 million at the start of the fiscal year.
Total Assets	• Considering the nominal change in Cash between the periods, total assets remained stable between YE-23 and Q2-24 at \$0.7 million.
Trade AP and accrued liabilities	• Trade accounts payables and accrued liabilities increased by \$0.5 million during the first 6 months of FY-24. The main increase between the 2 periods related to increase in amounts due to management as no salaries/fees were paid during the FY-24 period.
Notes	• Notes were issued as part of the December 2021 bridge financing which matured in December 2022. They continue to bear interest until full repayment.
Convertible debentures (Short-term)	 During FY-20 and FY-21, the Corporation issued \$3.2 million of CDUs to fund its operations. The \$2.0 Million decrease during the YTD-24 period relates to the net impact of the CDU and interest being converted into the May/June 2023 private placements.
Derivative (Short-Term)	 Represents the conversion option liability for the CDU matured on May 1, 2023. The conversion option was eliminated on maturity.
Convertible debentures (Long-term)	• During Q4-21 the Corporation secured a \$3.0 million NCDU financing to fund its activities. During Q4-23, an agreement has been reached with 100% of the NCDU Debenture holders to extend the term of the debenture to February 1, 2025 and add a conversion features. Following this amendment, the debentures previously referred as NCDUs are now presented as CDUs.
Embedded derivative (Long-Term)	 Represents the conversion option liability for CDU maturing on February 2025. The change in value of the conversion option for these CDUs led to a \$0.6 million reduction since the start of the year. The balance as at Q2-24 represents to current outstanding value of the conversion option.
Total Liabilities	• Total liabilities have decreased significantly between YE-23 and Q2-24. Following conversion of debentures into the May/June 2023 Private Placements, as well as the elimination/reduction of the conversion options on the debentures. Total liabilities decreased by \$4 million during the first 6-months of FY-24.
Common Shares	The increase takes into account the closing of the May/June 2023 Private placements.
Warrants	• Warrants increased during the YTD-24 period due to the issuance of warrants as part of the May/June 2023 Private placements.
Contributed Surplus	• The contributed surplus increased by \$0.4 million as a result of share-based compensation expense and the expiry of warrants.
Deficit	• The increase reflects the performance of the Corporation during FY-24. (See "Statement of Loss" commentaries)





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SELECTED QUARTERLY FINANCIAL INFORMATION

The following table sets out the Corporation's selected unaudited quarterly financial information for the eight quarters ended July 31, 2023. This information is derived from unaudited quarterly financial statements prepared by management in accordance with IFRS. The following quarterly information is presented on the same basis as the interim unaudited financial statements and should be read in conjunction with those statements and their accompanying notes.

	Q2-24	Q1-24	Q4-23	Q3-23	Q2-23	Q1-23	Q4-22	Q3-22
R&D Expenses (Net)	195	418	561	567	444	663	415	591
G&A expenses	345	584	509	523	484	567	309	357
Share-based compensation	44	56	92	95	162	42	67	43
Financial expenses	124	339	1,070	373	349	351	370	266
FVA embedded derivative	(299)	(1,443)	-	277	(78)	(734)	(279)	666
FVA on warrants	-	(51)	(72)	22	2	(39)	(31)	-
Net Loss	(409)	97	(2,160)	(1,857)	(1,363)	(850)	(851)	(1,923)
EBITDA (Loss)	(573)	(1,047)	(1,145)	(1,171)	(1,076)	(1,254)	(773)	(973)

(See "Management's Responsibility for Financial Reporting" - "Non-IFRS Financial Measures")

Notes	Valuable information
R&D expenses	• R&D expenses fluctuate based on the timing of R&D activities. The reduction of R&D expenses in Q2-24 compared to prior quarter show the impact of the reduction of R&D activities which followed the conclusion of enrollment into the Phase I/II rotator cuff study, as well as the use of R&D grants which serve to fund a large portion of our R&D activities.
G&A expenses	• G&A expenses have fluctuated due to the impact of senior management changes that took place during the various periods. G&A expenses have decreased during Q2-24 due to reduction of compensation to senior management.
Share-Based Compensation	• Share-based compensation fluctuates as a results of staff changes, and due to the timing of expense recognition associated with the vesting of the options issued.
Financial expenses	 Financial expenses have increased by \$0.7 million between Q3-23 and Q4-23 due to the non-recurrent loss on extinguishment of the NCDU debt. Interest charges have decreased in Q2-24 following conversion in May and June 2023 of a significant portion of the outstanding debentures into the Private Placements.
FVA of embedded derivative	• The changes to the terms of the conversion price of convertible debentures as well as the variation in share price during the last quarters has led to quarterly adjustments to the FVCO of the debentures representing respective decreases (gains) or increases (losses) since the embedded derivative were created.
FVA on warrants	• There has been nominal quarterly variations (adjustments) to the fair value of the warrants issued as part of the December 2021 bridge financing. Warrants have expired in Q1-24.
Net Income or Loss	 Over the last 2 years, fluctuations in net income or loss has been mainly impacted by the FVA of the derivative liability related to the CDUs as well as to a lessor extent to the fluctuations of the R&D, G&A and SBC expenses. Net income in Q1-24 is due to the \$1.4 million positive FVA of the derivative liability.
EBITDA (Loss)	 EBITDA (Loss) (See "Management's Responsibility for Financial Reporting" – "Non-IFRS Financial Measures") eliminates the impact of the FVA on the CDU, NCDU, ITC and other financings which reflect the Corporation's financing strategy adopted to attract the required capital to fund its operations. After eliminating such expenses, the EBITDA (Loss) in Q2-24 decreased by \$0.4 million from Q1-24 reflecting a decrease in overall expenses. Fluctuations over prior quarter were directly related to variations in R&D and G&A spendings described above.



 ${\bf Manage ment's\ Discussion\ and\ Analysis\ for\ the\ three\ and\ six-month\ periods\ ended\ July\ 31,2023}$

(In thousands of Canadian dollars, except for units, share and per share amounts)

LIQUIDITIES AND CAPITAL RESSOURCES

			Change	
For the 6-month period ended on,	31-Jul-23	31-Jul-22	\$ ¹	% ²
Operating activities:				
Net loss from operations	(312)	(2,213)	1,901	-86%
Other items not affecting cash	(1,467)	67	-1,534	-2290%
Changes in non-cash working capital	1,156	140	1,016	726%
Cash used in operations	(623)	(2,006)	1,383	-69%
Investing activities:				
Cash used in investing activities	-	-	-	100%
Financing activities:				
Cash provided by financing activities	547	2,570	-2,023	-79%
Cash, beginning of period	108	313	-205	-65%
(Decrease) increase in cash	(76)	564	- 640	-113%
Effect of foreign exchange on cash	1	2	-1	-50%
Cash, end of period	33	879	-846	-96%

^{1.} A positive variance represents a positive impact to cash flows and a negative variance represents a negative impact to cash flows

^{2.} Percentage change is presented in relative values

Selected items	YTD-24 vs YTD-23
Cash used in operations	• Cash used in operations represents the cash flows from operations, excluding income and expenses not affecting cash plus changes in non-cash working capital items.
	• Cash used in operations was \$0.6 million for YTD-24 period as compared to \$2.0 million for YTD-23 period, representing a \$1.4 million decrease. The decrease results from the \$1.9 million decrease in net loss, and a \$1.0 million increase in non-cash working capital which were offset by items not affecting cash which captured the combined \$1.8 million gains on fair value adjustments to the CDU embedded derivative and warrant liability.
Cash used in investing activities	No investments during YTD-23, compared to nominal investment in YTD-22.
Cash provided by financing activities	• Financing activities in YTD-24 generated \$0.5 million from funds raised as part of the May/June 2023 PIPE financing compared to \$2.6 million in YTD-23 representing the net impact of the April 2022 PIPE.
Cash, End of the period	• The Corporation ended Q2-24 with \$nil cash compared to \$0.9 million at the end of Q2-23.

Cash, and Working Capital

As at,	2023-07-31	2023-01-31	Change	
	\$	\$	\$	%
Cash	33	108	(75)	-69%
Total current assets	379	396	(17)	-4%
Accounts payables and accrued liabilities	2,237	1,793	444	25%
Convertible debentures - Short term	640	2,681	(2,041)	-76%
Convertible unit Bridge	480	480	-	100%
Total current liabilities	3,767	7,222	(3,455)	-48%
Working Capital	(3,388)	(6,826)	3,438	-50%

 $^{1. \}hspace{0.5cm} \hbox{A positive variance represents a positive impact, and a negative variance represents a negative impact}\\$

Cash at the end of Q2-24 was \$nil as compared to \$0.1 million at the end of YE-23 representing a \$0.1 million increase. Despite the nominal cash position, working capital deficit between YE-23 and Q2-24 has improved significantly following the maturity and conversion of the CDU maturing in May 2023.

^{2.} Percentage change is presented in relative values



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Working Capital at the end of Q2-24 showed a \$3.5 million deficit compared to a \$6.8 million deficit as at the end of FY-23, a 50% improvement.

During prior periods, the Corporation has demonstrated its ability to raise the necessary capital to support its operations and achieve development milestones. However, there is no assurance that the Corporation will be able to secure the necessary financing to fund it various development programs. Management has continued to implement IR and financing initiatives to attract the required capital to fund its operations and deliver R&D and corporate milestones over the next fiscal year. (See "Overview of the Business" and "Going concern").

The Corporation's use of available funds over the coming year is of utmost concern to the Board. Since the extent and timing of warrant exercise as a source of financing are uncertain, management continues to look for alternative sources of financing to secure the required capital necessary to fund its operations and development projects. Management's focus is on securing equity-based financings from Canadian and US based institutional and/or accredited investors. The Corporation is also actively promoting its technologies to strategic partners.

Discussion of operating cash requirements

All programs in the Corporation's current portfolio will require additional financial commitments to increase their market value (through, for example, clinical trials) or to attract a strategic partner. After having concluded enrolment on the Phase I/II rotator cuff program, we estimate that \$0.5 million will be required to complete the study and position ChitogenX for Phase II readiness on this program.

We wish to make best use of our financial resources and leverage out strong intellectual properties. The notice of allowance on new patents ("See Subsequent Events") provides for 1) proprietary chitosan scaffold on its own and in combination with a wide variety of therapeutic agents, 2) protects for the use of ChitogenX' proprietary scaffold in combination with biologics in addition to exisiting PRP and blood products applications, 3) provides huge boost to the Company's attractiveness as a regenerative medicine with a proprietary scaffold, and 4) positioned the Corporation to leverage opportunities for commercial readiness and fast-tracking regulatory programs with potential 510(k) pre-market submissions in the US. We are now in a unique position to secure co-development agreements using our Ortho-R (Chitosan-PRP), as well as our new Chitosan based IP. Co-development agreements represent the best approach to create value while leveraging 3rd party funding.

In order to successfully advance its current R&D programs, ChitogenX entered into a Collaborative R&D Agreement with Polytechnique to ensure access to Polytechnique's staff, expertise, and laboratories. The agreement expires on August 14, 2024.

In February 2023, the Corporation secured a \$3.5 million grant from NSERC and Prima Québec in partnership with Polytechnique Montréal. The 4-year grant will be used to advance the scientific development, expand the scope of indications, develop new biomaterials for regenerative medicine and accelerate the commercial readiness of the Company's flagship ORTHO-R technology platform.

We intend to leverage our R&D grants as well as our exclusive relationship with Poly to advance our R&D initiatives at nominal costs for the Corporation.

The Corporation's cash burn has significantly reduced over the last few quarters, as evidenced by 1) the steep reduction in overall R&D expenses following the conclusion of enrollment into the Phase I/II rotator cuff trial, 2) the securing of the \$3.5 million NSERC grant which has reduced significantly the R&D expenses for ChitogenX, 3) management's decision to significantly reduce and defer the majority of payment on its compensation, and 4) the conversion of a significant portion of the debt leading to reduced financial costs. Management is actively pursuing strategic initiatives and R&D partnering to attract/secure non-dilutive financing while continuing to seek financing via traditional financing means. A 3rd closing of the PIPE announced in May 2023 is anticipated before the end of Q3-24 and will provide additional capital to help the Corporation fund its operations and implement its strategic initiatives.

Statement of Compliance

The unaudited interim financial statements included in this MD&A for the quarter ending July 31, 2023 have been prepared in accordance with *International Financial Reporting Standards* as issued by the *International Accounting Standards Board ("IASB")* as well as with those standards and interpretations as issued by the *International Financial Reporting Interpretations Committee ("IFRIC")* issued and effective or issued and early adopted as at the time of preparing these interim financial statements.

Use of Estimates and Judgements

Reference should be made to the Corporation's 2023 annual financial statements, *note 3*, for an extended description of the information concerning the Corporation's significant judgments, estimates and assumptions that have the most significant effect on the recognition and measurement of assets, liabilities, income and expenses.