

Management's Discussion and Analysis for the three and nine-month periods ended October 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 third quarter and year-to-date periods of our 2024 fiscal year ended on October 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 Audit 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 December 21, 2023.

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

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 nine-month period ended October 31, 2023, the Corporation incurred a net loss of \$1,096 and used cash in operations of \$918. As at October 31, 2023, the Corporation had a negative working capital balance of \$3,229.

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. These interim unaudited financial statements as at and for the quarter ended October 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; (ii) 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**

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Calendar & I	<u>Financial</u>	Corporate & Op	<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
Q3-24	Third quarter FY-24	IND	Investigational New Drug application with the FDA
Q2-24	Second quarter FY-24	MCRA	MCRA, LLC, a US based orthopedic specialty CRO
Q1-24	First quarter FY-23	MRI	Magnetic Resonance Imaging
Q4-23	Fourth quarter FY-23	MTA	Material Transfer Agreement
Q3-23	Third quarter FY-23	NSERC	Natural Sciences and Engineering Research Council of
Q2-23	Second quarter FY-23		Canada
Q1-23	First quarter FY-22	ORTHO-C	Proprietary biopolymer for Articular Cartilage repair
Q4-22	Fourth quarter FY-22	ORTHO-M	Proprietary biopolymer for Proprietary Biopolymer for
SR&ED	Scientific Research and Experimental		Meniscus repair
	Development Expenses	ORTHO-R	Proprietary biopolymer for Rotator cuff repair
R&D	Research and Development	ORTHO-V	Proprietary biopolymer for Osteoarthritis healing
YTD	Year to date	OTCQB	US over-the-counter venture trading market
YE	Year-end	Polytechnique	Ecole Polytechnique de Montreal
WA	Weighted Average	PRP	Platelet-rich plasma
W/C	Working Capital, defined as short-term assets less short-term liabilities	Pre-RFD	Pre-Request for Designation

#### **BUSINESS STRATEGY**

## 1. 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.

After having investigated the regenerative medicine market and its component submarkets, ChitogenX launched a new development program in Q3-24 targeting significant unmet medical needs in the burn healing and skin repair market currently valued at US \$19B. The Corporation will leverage positive data in proof-of-concept studies combined with the recently obtained US and Canadian patents for our chitosan-based biopolymer. Burn and skin repair programs potentially allow for efficient clinical trial development program, streamlined regulatory process and faster path to commercialization. The Corporation's proprietary chitosan-based biopolymer is well suited to help address significant unmet medical needs to repair skin defects caused by burns, other trauma and wounds of various etiologies, alone or in combination with other cellular technologies, due to its unique characteristics allowing it to adhere to tissues thus facilitating the delivery of various therapeutic interventions to its target tissue when compared to standard of care.

# 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. These grants have created significant value in funding the development of several proof of concept and clinical development programs.

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. It is based on this new intellectual property that the company launched its burn healing and skin repair development program. This grant will also help to develop further ideas on leveraging our unique and proprietary products.



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#### **Burn and Skin Program:**

The Corporation has announced a development program in the \$19B skin repair market following successful proof of concept work demonstrating that the company's proprietary chitosan-based biopolymer scaffold induced skin cell reproduction and proliferation through the scaffold to be delivered to target tissue. Importantly the regulatory development pathway for this program is designed to be through the medical device pathway which is considerably more efficient that the biologics license application process the company was pursuing in its orthopedic development program. This development program is largely funded through the previously announced \$3.5M grant to the Montreal Polytechnique.

#### **Meniscus Study:**

During FY-23, ChitogenX was awarded a \$0.5 million grant 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, recently completed the surgical procedures in 22 large animals. In this study, a radial meniscus tear was surgically induced and immediately surgically repaired. The sheep were randomized into three groups: i) surgery alone, ii) surgery and PRP, and iii) surgery + ORTHO-R and PRP combined.

#### FINDINGS:

Results were observed 6 months post-surgery.

- i. <u>Tissue adherence:</u> The study confirmed the presence of tissue adherence and the aggregation of PRP regenerative cells imbedded in the tear. It represents our second orthopedic Ortho-R/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.
- ii. <u>Protection against osteoarthritis (OA).</u> Results also showed that most menisci from the two control groups (surgery alone or surgery + PRP alone) experienced severe structural changes and most control sheep displayed moderate to severe signs of osteoarthritis ("OA"). The medial menisci from the ORTHO-R treated group retained better structure and much milder form of OA and, in some cases, appeared near normal. This study provides the first evidence that treatment with ChitogenX's proprietary chitosan-based biopolymer + PRP prevents structural changes to radially incised and sutured menisci in a large animal model, and most likely contributed to protecting the joints against OA development.

ChitogenX intends to file an IND with the FDA to commence human clinical trials within 12 months following full results of the meniscus study expected for Q4-24.

3. Complete Rotator Cuff Tear Repair U.S. phase I/II clinical trial program to establish a clinical safety profile for our regenerative platform

ChitogenX has recently concluded enrolment of its U.S. Phase I/II rotator cuff tear repair clinical trial entitled: 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® Study). 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.

The company was able to proceed to the full recruiting of the trial after completing the first 5 patients without any safety issues thus gaining the approval of the data safety monitoring board to proceed to the randomization of the study. All subjects are now randomized, and the study results are expected in the fall of calendar 2024.

The Corporation, and its clinical and regulatory advisors believe that concluding subject enrollment at this stage still allows for key study objectives to be met.

## Our Technology:

**ORTHO-R** is a combination of our proprietary chitosan based-biopolymer mixed with Platelet Rich Plasma (PRP). to form an injectable combination of the chitosan-based biopolymer scaffold and the PRP-biologic. The FDA has deemed the combination a Biologic. The product is formulated and designed to improve the healing of body tissues beginning with sports and occupation related injuries to tendons, meniscus, and ligaments.





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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 adverse events were found in any of the above-mentioned animal studies nor in the 19 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 year.

## **ChitogenX Overall Value Proposition**

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

## Q3-24 CORPORATE HIGHLIGHTS (August 1 to October 31, 2023)

- 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.
- On September 29, 2023, the Corporation closed a third tranche of its previously announced non-brokered private placement offering of units. The third tranche of the offering consisted of gross cash proceeds of \$0.39 million and \$0.25 million in debt conversion from holders of convertible debentures which matured on May 1, 2023. The Corporation issued 4,255,138 units at a price of \$0.15 per unit for a total consideration of \$0.64 million. Each Unit consist of one class A share of the Company (each, a "Share") and one share



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purchase warrant of the Company (each whole share purchase warrant, a "Warrant"). Each Warrant entitles the holder to purchase one Share of the Company (each, a "Warrant Share") at a price of \$0.35 per Warrant Share for a period of 36 months from closing (the "Closing Date"), subject to adjustment in certain events. If, at any time following the Closing Date, the daily volume weighted average trading price of the Shares on the Canadian Securities Exchange is greater than \$0.50 per Share for the preceding 10 consecutive trading days, the Company shall have the right to accelerate the expiry date of the Warrants to a date that is at least 30 days following the date of such notice to holders of Warrants.

• On October 18, 2023, a former executive of the Corporation obtained a judgement approving his application for homologation of the Separation Agreement and Mutual General Release (the "Agreement") entered into between the former executive and the Corporation on May 18, 2022. Pursuant to the Agreement, the Corporation owes a balance of \$109,087.14 to the former executive.

#### Events Subsequent to the end of the quarter

- On November 7, 2023, ChitogenX announced that it had launched a new development program targeting significant unmet medical
  needs in the burn and skin repair market, currently valued at US \$19B and growing at 5% + CAGR through 2032. New patent issued
  both in US and Canada supports ChitogenX' proprietary chitosan-based biopolymer as ideal combination with cellular regeneration
  technologies. Both burn and skin repair program have the potential for streamlined regulatory process, and faster path to
  commercialization. Development work will be primarily funded by the recently awarded \$3.5 M grant.
- On November 9, 2023, ChitogenX Inc. announced that ORTHO-R, its proprietary chitosan/PRP based biopolymer matrix successfully
  demonstrated protection from joint degeneration post meniscal repair surgery in a large animal study. These results demonstrated
  protection from knee joint degeneration and osteoarthritis development post meniscal repair surgery and provide further evidence
  that the Company's proprietary chitosan-based biopolymer, combined with PRP can potentially bring significant benefit to human
  tissue repair.
- On November 9, 2023, the Corporation granted an aggregate of 3,316,667 DSUs and 500,000 Options to Directors and Officers of the Company, in lieu of cash compensation.
- On December 13, 2024, holders of Notes totalling \$0.33 million in capital and interest agreed to amend the terms of the Notes to fix the repayment of such Notes to February 1, 2025. The Notes now bear interest at 12%.



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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 October 31, 2023 unaudited condensed consolidated interim financial statements.

	Q3-24	Q3-23	Chang	ge	YTD-24	YTD-23	Chang	e
	\$	\$	<b>\$</b> <sup>1</sup>	% <sup>2</sup>	\$	\$	\$ <sup>1</sup>	% <sup>2</sup>
Expenses								
R&D	74	567	(493)	-87%	687	1,674	(987)	-59%
G&A	254	523	(269)	-51%	1,183	1,574	(391)	-25%
Share-based compensation	29	95	(66)	-69%	129	299	(170)	-57%
Financial	257	373	(116)	-31%	720	1,073	(353)	-33%
	614	1,558	(944)	-61%	2,719	4,620	(1,901)	-41%
FVA embedded derivative	171	277	(106)	-38%	(1,571)	(535)	(1,036)	194%
FVA on warrants	(1)	22	(23)	-105%	(52)	(15)	(37)	247%
Net (Loss) and Comprehensive loss	(784)	(1,857)	1,073	-58%	(1,096)	(4,070)	2,974	-73%
(Loss) per share								
Weighted average number of shares outstanding	80,324,904	51,038,776	29,286,128	57%	69,654,683	47,322,558	22,332,125	47%
Basic and diluted (loss) per share	(0.01)	(0.04)	(0.03)	75%	(0.02)	(0.09)	(0.07)	77%

<sup>1.</sup> 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 Q3-24 and YTD-24 periods as compared to the prior year.

	Q3-24	Q3-23	Change	Change		YTD-23	Chang	e
	\$	\$	\$	%	\$	\$	\$	%
Net loss	(784)	(1 857)	1 073	-58%	(1 096)	(4 070)	2 974	-73%
Add (deduct)								
Financial	257	373	(116)	-31%	720	1 073	(353)	-33%
FVA on embedded derivative	171	277	(106)	-38%	(1 571)	(535)	(1 036)	194%
FVA on warrants	(1)	22	(23)	-105%	(52)	(15)	(37)	247%
Depreciation – equipment	3	6	(3)	-50%	9	18	(9)	-50%
Amortization – intangible assets	8	8	-	0%	24	24	-	0%
EBITDA (L)	(346)	(1 171)	825	-70%	(1 966)	(3 505)	1 539	-44%

<sup>1.</sup> A positive variance represents a negative impact to net loss and a negative variance represents a positive impact to net loss

<sup>2.</sup> Percentage change is presented in relative values.

Selected items	Q3-24 vs Q3-23 and YTD-24 vs YTD-23
Revenues	• CHITOGENX is a clinical stage Corporation. No revenues were generated during each of YTD-24 and YTD-23
R&D expenses	<ul> <li>R&amp;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&amp;D contract with Polytechnique as well as specific manufacturing activities, regulatory, pre-clinical and clinical work to advance our pipeline. R&amp;D expenses are presented net of R&amp;D tax credits (ITCs) recoverable from the provincial government for Scientific Research and Experimental Development (SR&amp;ED) programs, and net of government grants.</li> <li>R&amp;D expenses are also presented net of grants which are amortized over their respective term.</li> </ul>
	<ul> <li>R&amp;D expenses for Q3-24 and YTD-24 were significantly lower than in the prior year periods. The respective decreases were 87% and 59%.</li> <li>R&amp;D expenses decreased due to the timing and nature of R&amp;D activities, the conclusion of enrolment for the Corporation's Phase I/II rotator cuff trial, as well as the use of R&amp;D grants which serve to fund a large portion of our R&amp;D activities since the \$3.5 million INSERC R&amp;D grant was secured at the start of FY-24</li> </ul>
G&A expenses	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.

<sup>2.</sup> Percentage change is presented in relative values





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	<ul> <li>G&amp;A spending in Q3-24 were down compared to Q3-23 at \$0.3 million compared to \$0.5 million. G&amp;A spending for the YTD-24 period were down 25% compared to YTD-23.</li> <li>YTD-23 G&amp;A expenses included a severance charge for the termination of our previous CEO. G&amp;A in YTD-24 included a special charge for salary deferral, as management opted to defer salaries for preserving cash to support R&amp;D operations.</li> </ul>
Share-based compensation (SBC)	<ul> <li>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.</li> <li>SBC expenses in Q3-24 were down 69% compared to Q3-23. The YTD decrease was 57%.</li> <li>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.</li> </ul>
Financial expenses	<ul> <li>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.</li> <li>Financial expenses were down 31% and 33% respectively for Q3-24 and YTD-24 period compared to Q3-23, 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/September 2023 Private Placement.</li> </ul>
Fair Value Adjustment ("FVA") of Embedded Derivative	<ul> <li>On October 19, 2022, the Corporation announced the amendment of three series of CDUs to extend their respective maturity dates.</li> <li>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.</li> <li>During the Q3-24 and Q3-23 periods, the change in the FVCO, led to a Fair Value Adjustment ("FVA") of the conversion option representing a \$0.2 million and \$0.3 million expense respectively. For the YTD periods the FVA led to a \$1.6 million and \$0.5 million gain respectively.</li> </ul>
Fair Value Adjustment ("FVA") on warrants	<ul> <li>The terms of the warrants issued as part of the December 2022 Bridge financing led to the creation of a warrant liability.</li> <li>During each of Q3-24 and Q3-23, as well as YTD-24 and YTD-23 the revaluations of the Warrants' fair value were nominal.</li> </ul>
Net Income (Loss) for the period	<ul> <li>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.</li> <li>Net loss in Q3-24 was \$0.8 million, down 58% compared to Q3-23, while net loss for the YTD-24 was down 73% compared to YTD-23.</li> </ul>
EBITDA (L)	<ul> <li>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 Q3-24 was \$0.3 million compared to \$1.1 million for Q3-23, representing a 70% decrease, and reflecting the overall decrease in expenses described above.</li> <li>The reduction in EBITDA loss for the YTD-24 period compared to YTD-23 was \$1.5 million, or a 44% decrease.</li> </ul>





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## **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 October 31, 2023.

As at,	October 31, 2023	January 31, 2023	Cha	nge
	\$	\$	\$	%
Cash	111	108	3	3%
Prepaids and deposits	171	122	49	40%
Intangible Assets	275	299	-24	-8%
Total assets	703	738	-35	-5%
Trade accounts payable and accrued liabilities	2,244	1,793	451	25%
Notes	480	480	0	0%
Convertible Debentures - Short term	416	2,681	-2,265	-84%
Convertible Debentures - Long term	2,569	2,363	206	9%
Warrants classified as liability	-	52	-52	-100%
Embedded derivative	-	1,098	-1,098	-100%
Total liabilities	6,714	10,581	-3,867	-37%
Common shares	14,311	10,357	3954	38%
Warrants	2,180	2,406	-226	-9%
Contributed surplus	3,751	2,551	1,200	47%
Deficit	(26,253)	(25,157)	-1,096	4%

<sup>1.</sup> A positive variance represents a positive impact to our balance sheet and a negative variance represents a negative impact to our balance sheet.

<sup>2.</sup> Percentage change is presented in relative values

Selected items	Q3-24 vs YE-23
Cash	Cash at the end of Q3-24 was \$0.1 million compared to \$0.1 million at the start of the fiscal year.
Total Assets	Considering no change in Cash between the periods, total assets remained stable between YE-23 and Q3-24 at \$0.7 million.
Trade AP and accrued liabilities	Trade accounts payables and accrued liabilities increased by \$0.5 million during the first 9 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. Subsequent of the end of the quarter, and agreement was reached with holders of Notes representing \$0.33 million in capital and interest, to defer repayment of said notes to February 1, 2025.
Convertible debentures (Short-term)	• During FY-20 and FY-21, the Corporation issued \$3.2 million of CDUs to fund its operations.  The \$2.3 million decrease during the YTD-24 period relates to the net impact of the CDU and interest being converted into the May/June and <b>September</b> 2023 private placements.
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)	<ul> <li>Represents the conversion option liability for CDU maturing on February 2025.</li> <li>The change in value of the conversion option for these CDUs led to a \$1.1 million reduction since the start of the year. The balance as at Q3-24 represents to current value of the conversion option.</li> </ul>
Total Liabilities	• Total liabilities have decreased significantly between YE-23 and Q3-24, following conversion of debentures into the May/June/September 2023 Private Placements, as well as the elimination/reduction of the conversion options on the debentures. Total liabilities decreased by \$3.9 million during the first 9-months of FY-24.
<b>Common Shares</b>	• The increase takes into account the closing of the May/June and August 2023 Private placements.
Warrants	• Warrants decreased during the YTD-24 period due to the expiry of warrants partly offset by the issuance of warrants as part of the May/June/August 2023 Private placements.
Contributed Surplus	• The contributed surplus increased by \$1.2 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)





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

## **SELECTED QUARTERLY FINANCIAL INFORMATION**

The following table sets out the Corporation's selected unaudited quarterly financial information for the eight quarters ended October 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.

	Q3-24	Q2-24	Q1-24	Q4-23	Q3-23	Q3-23	Q2-23	Q1-23
R&D Expenses (Net)	74	195	418	561	567	567	444	663
G&A expenses	254	345	584	509	523	523	484	567
Share-based compensation	29	44	56	92	95	95	162	42
Financial expenses	257	124	339	1,070	373	373	349	351
FVA embedded derivative	171	(299)	(1,443)	-	277	277	(78)	(734)
FVA on warrants	(1)	-	(51)	(72)	22	22	2	(39)
Net Loss	(784)	(409)	97	(2,160)	(1,857)	(1,857)	(1,363)	850)
EBITDA (Loss)	(346)	(573)	(1,047)	(1,145)	(1,171)	(1,171)	(1,076)	(1,254)

(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 Q3-24 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 Q3-24 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	<ul> <li>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.</li> <li>Financial expenses have decreased in Q3-24 following conversion in May and June 2023 of a significant portion of the outstanding debentures into the Private Placements.</li> <li>The increase is Q3-24 over the prior period is mainly due to a non-cash F/X loss on US\$ accounts payables.</li> </ul>
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	<ul> <li>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 lesser extent to the fluctuations of the R&amp;D, G&amp;A and SBC expenses.</li> <li>Net income in Q1-24 is due to the \$1.4 million positive FVA of the derivative liability.</li> </ul>
EBITDA (Loss)	<ul> <li>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.</li> <li>After eliminating such expenses, the EBITDA (Loss) in Q3-24 decreased by \$0.2 million from Q2-24 reflecting a sequential decrease in overall expenses. Fluctuations over prior quarter were directly related to variations in R&amp;D and G&amp;A spendings described above.</li> </ul>



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

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

## **LIQUIDITIES AND CAPITAL RESSOURCES**

				Change	
For the 9-month period ended on,	31-Oct-23	31-Oct-22		\$ <sup>1</sup>	% <sup>2</sup>
Operating activities:					
Net loss from operations	(1,096)	(4,070)		2,974	-73%
Other items not affecting cash	(1,086)	641	-	1,727	-269%
Changes in non-cash working capital	1,264	565		699	124%
Cash used in operations	(918)	(2,864)		1,946	-68%
Investing activities:					
Cash used in investing activities	-	-		-	100%
Financing activities:					
Cash provided by financing activities	937	2,570	-	1,633	-64%
Cash, beginning of period	108	313	-	205	-65%
(Decrease) increase in cash	19	(294)		313	-106%
Effect of foreign exchange on cash	(16)	31	-	47	-152%
Cash, end of period	111	50		61	122%

<sup>1.</sup> A positive variance represents a positive impact to cash flows and a negative variance represents a negative impact to cash flows

<sup>2.</sup> 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 \$0.9 million for YTD-24 period as compared to \$2.9 million for YTD-23 period, representing a 68% or \$1.9 million decrease. The decrease results from the \$3.0 million decrease in net loss, and a \$0.7 million increase in non-cash working capital which were offset by items not affecting cash which captured the gains on fair value adjustments to the CDU embedded derivative and warrant liability.
Cash used in investing activities	No investments during YTD-24, compared to nominal investment in YTD-23.
Cash provided by financing activities	• Financing activities in YTD-24 generated \$0.9 million from funds raised as part of the May/June/September 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 Q3-24 with \$0.1 million compared to nil at the end of the prior quarter and \$0.05 million at the end of Q3-23.

## Cash, and Working Capital

As at,	2023-10-31	2023-01-31	Change	
	\$	\$	\$	%
Cash	111	108	3	3%
Total current assets	393	396	(3)	-1%
Accounts payables and accrued liabilities	2,244	1,793	451	25%
Convertible debentures - Short term	416	2,681	(2,265)	-84%
Convertible unit Bridge	480	480	-	100%
Current portion of long-term loan	40	40	-	100%
Warrants presented as a liability	-	52	(52)	100%
Total current liabilities	3,622	7,222	(3,600)	-50%
Working Capital	(3,229)	(6,826)	3,597	-53%

<sup>1.</sup> A positive variance represents a positive impact, and a negative variance represents a negative impact

Cash at the end of Q3-24 was \$0.1 million as compared to \$0.1 million at the end of YE-23 representing no change. Cash raised during FY-24 was used to fund operations. Despite the nominal cash position, working capital deficit has improved significantly between YE-23 and Q3-24 following the maturity and conversion of the CDU maturing in May 2023.

<sup>2.</sup> Percentage change is presented in relative values



## Management's Discussion and Analysis for the three and nine-month periods ended October 31, 2023

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

Working Capital at the end of Q3-24 showed a \$3.2 million deficit compared to a \$6.8 million deficit as at the end of FY-23, a 53% 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.

#### Soft Tissue / Rotator Cuff Repair program

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.

#### Burn healing and Skin Repair program.

In order to leverage the recently announced notice of allowance providing protection for the use of our proprietary chitosan scaffold on its own and in combination with a wide variety of therapeutic agents, ChitogenX has launched 2 new R&D programs focusing on burn healing and skin repair. Development of the new programs will be covered by our recently announced NSERC grant and will provide for accelerated timelines compared to soft-tissue program development.

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 existing 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 3<sup>rd</sup> 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.

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.

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.

#### **Statement of Compliance**

The unaudited interim financial statements included in this MD&A for the quarter ending October 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.