Spectra7 Microsystems Inc.

Management's Discussion & Analysis

For the Three Months Ended March 31, 2021

May 28, 2021

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This management's discussion and analysis ("MD&A") of financial condition and results of operations of Spectra7 Microsystems Inc. ("Spectra7" or the "Company") was prepared by management as at March 31, 2021. Throughout this MD&A, unless otherwise specified, "Spectra7", "the Company", "we", "us" or "our" refer to Spectra7 Microsystems Inc. and its subsidiaries. This MD&A should be read in conjunction with the audited consolidated financial statements of the Company and notes thereto as at December 31, 2020 (the "Annual Financial Statements") and the unaudited condensed interim consolidated financial statements for the three months ended March 31, 2021 and 2020 (the "Interim Financial Statements" and, together with the Annual Financial Statements, the "Statements"). In preparing this MD&A, we have taken into account information available to us up to May 28, 2021 unless otherwise stated.

The Interim Financial Statements have been prepared by management in accordance with International Financial Reporting Standards ("IFRS") issued by the International Accounting Standards Board ("IASB") and interpretations of the International Financial Reporting Interpretations Committee ("IFRIC"). All amounts are expressed in U.S. dollars unless otherwise noted. Other information contained in this document has also been prepared by management and is consistent with information included in the Interim Financial Statements. You will find the Financial Statements on SEDAR at www.sedar.com.

This MD&A contains commentary from the Company's management regarding the Company's strategy, operating results, financial position and outlook. Management is responsible for the accuracy, integrity, and objectivity of the MD&A, and develops, maintains and supports the necessary systems and controls to provide reasonable assurance as to the accuracy of the comments contained herein.

The Audit Committee and the Board of Directors provide an oversight role with respect to all public financial disclosures by the Company. The Audit Committee meets periodically to review all financial reports prior to filing and approved the Interim Financial Statements and MD&A after the completion of its review.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This MD&A contains certain forward-looking information and statements relating, but not limited to, the Company's future financial position and results of operations, strategies, plans, objectives, goals, targets, and future developments in the markets where the Company participates or is seeking to participate. Forward-looking information typically contains statements with words such as "consider", "anticipate", "believe", "expect", "plan", "intend", "may", "likely", or similar words suggesting future outcomes or statements regarding an outlook, or other expectations, beliefs, plans, objectives, assumptions, intentions or statements about future events or performance. Readers should be aware that these statements are subject to known and unknown risks, uncertainties and other factors that could cause actual results, performance or achievements of the Company to differ materially from those suggested by the forward- looking information and statements, some of which may be beyond the control of management.

Although the Company believes that the expectations, estimates, and projections reflected in such forward-looking information and statements are reasonable, such forward-looking information and statements involve known and unknown risks, uncertainties and other factors which may cause actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking information and statements. On this basis, readers are cautioned not to place undue reliance on such forward looking information and statements.

Factors which could cause actual results to differ materially from current expectations include, but are not limited to:

- the adverse impact of COVID-19 on our staffing, revenue, operations, manufacturing supply chain, project development and customer demand;
- availability of adequate product supplies in an environment of semiconductor industry supply shortages;
- the degree of competition in the business areas in which we operate;

- our ability to secure orders from a limited number of customers;
- our ability to make the substantial research and development investments required to remain competitive;
- our ability to charge prices that will result in favorable gross margins;
- our ability to introduce new or enhanced products on a timely basis;
- market demand and penetration of new markets for our products and services;
- our reliance on a limited number of third party manufacturers;
- the absence of long-term supply contracts with any of the Company's third-party vendors and potential disruption in supply of products or materials;
- our ability to contain and appropriately budget expenses, due to our limited operating history;
- the length of the sales cycle required to establish design wins and bring design wins to production;
- reliance on distributors;
- our ability to deliver our products in the correct product mix required by our customers and ability to control order and shipment uncertainties;
- the substantial quarterly and annual fluctuations in our operating results;
- our dependence on existing members of the senior management team;
- our ability to attract and retain qualified employees and contain payroll costs;
- unforeseen delays, expenses and damage to reputation caused by defects or bugs;
- potential claims of intellectual property infringement;
- our ability to protect our intellectual and intangible properties;
- the use of open source software;
- reliance on third parties to provide services and technology;
- going concern risk;
- impact of negative cash flow from operating activities;
- potential losses to our facilities or distribution system due to catastrophes;
- compliance with various governmental regulations and related costs of compliance;
- cyclicality in the semiconductor industry;
- conformity of the Company's products to industry standards;
- unanticipated changes in our tax rates;
- fluctuation of share price;
- decline in share price due to the absence of, or negative reports, about the business by securities or industry analysts;
- adverse international economic conditions adversely affect consumer spending;
- general political and economic conditions in the countries in which we operate;
- strain on our resources as a result of the requirements of being a public company;
- litigation risk;
- market price volatility and potential impact on share price;
- our potential need for additional financings in order to meet future capital requirements for our operations;
- our potential to breach certain covenants, representations and warranties in our loan arrangements;
- our ability to declare dividends;
- our ability to meet significant research and development milestones; and
- our ability to enter into agreements with CRX Consortium members or the adoption of interconnects that use the Company's active copper cable technology.

We caution that this list is not exhaustive of all possible factors. For a detailed description of risk factors associated with the Company, refer to the "Risks and Uncertainties" section of the Company's management's discussion and analysis for the year ended December 31, 2020 (the "Annual MD&A"), filed on April 30, 2021 which is available on SEDAR at www.sedar.com.

The forward-looking information and statements in this MD&A are, unless otherwise indicated, stated as of the date hereof and are presented for the purpose of assisting investors and others in understanding our financial position and results of operations as well as our objectives and strategic priorities, and may not be appropriate for other purposes. The Company does not undertake any obligation to update publicly or to revise any forward-looking information and statements, whether as a result of new information, future events or otherwise, except as required by law.

OVERVIEW OF THE COMPANY

Background

The Company is a high performance analog semiconductor company targeting large, high growth markets in virtual reality ("VR"), augmented reality ("AR"), data centers, and consumer connectivity.

The Company was incorporated on October 12, 2010 as a capital pool company named "Chrysalis Capital VIII Corporation" ("Chrysalis") pursuant to the filing of articles of incorporation under the *"Canada Business Corporations Act"*. The articles of incorporation of the Company were amended by the filing of articles of amendment dated April 19, 2011 to remove certain provisions. On February 5, 2013, the Company's articles were amended to consolidate its common shares by a ratio of 3.86364:1 and to change its name to "Spectra7 Microsystems Inc.".

On February 5, 2013, the Company, then named Chrysalis Capital VIII Corporation, completed a reverse takeover transaction whereby Chrysalis acquired all of the issued and outstanding shares of Spectra7 Microsystems Corp. (formerly Fresco Microchip Inc.) ("Fresco"), a company incorporated in Ontario, and Spectra7 Microsystems (Ireland) Limited (formerly RedMere Technology Limited) ("RedMere"), a company incorporated in Ireland. As a result of such transaction, which constituted the Company's qualifying transaction under the policies of the TSX Venture Exchange (the "TSXV"), the former shareholders of Fresco acquired control of the Company (the "Qualifying Transaction"). From February 19, 2013 until July 22, 2015, the common shares of the Company were listed for trading on the TSXV under the symbol "SEV". From July 23, 2015 to May 21, 2020, the common shares were listed for trading on the Toronto Stock Exchange (the "TSX") under the symbol "SEV". As of May 22, 2020, the common shares were again listed for trading on the TSXV under the symbol "SEV".

The registered office of the Company is located at 181 Bay Street, Suite 1800, Toronto, Ontario Canada, M5J 2T9 and its head office is in San Jose, California. The Company also has a design center in Cork, Ireland and a sales office in Dongguan, China. The Company is currently a reporting issuer in each of the provinces of Canada, excluding Québec.

Products

The Company's family of products features a patented signal processing technology used in the design of "active" cables and specialty interconnects which enable longer, thinner and lighter interconnects for VR, AR, in data centers, and for consumer connectivity products. The Company holds approximately 55 patents relating to its products.

Virtual Reality (VR)

The Company's next-generation VR products include the VR7050 which the Company believes to be the industry's first chip capable of enabling lightweight, ultra-thin active interconnects for gesture recognition and motion control backhaul. When used in conjunction with Spectra7's VR7100 high speed video chip, the chipset delivers ultra-high bandwidth data, video, audio and power in a unified, ultra-light, super-thin wearable interconnect while achieving the low latency for a truly immersive VR experience.

Augmented Reality (AR)

The Company has also developed AR products that provide similar benefit to the VR Products on thinner, shorter 'wearable' interconnects.

AR-Connect™ is an AR interconnect product line that is powered by the Company's patented wearable network signal processing technology. The Company believes its patented AR-Connect™ is the industry's first integrated cable, connector and embedded chipset product line for AR vision systems and wearable computing devices. AR-Connect™ enables AR glasses to connect to a smart phone, proprietary processing device or a desktop GPU/laptop processing unit, with a single unified and ultra-thin link.

DreamWeVR™

DreamWeVR™ is an extensive product line targeted at next generation 4K Ultra-HD and 5K resolution VR and AR platforms for gaming, health care, architecture and business telepresence applications. The product line includes four new chips (VR8181, VR8050, VR8200 and VR8300) featuring SpectraLinear™ technology, new VR-specific connectors and three new head-mounted display ("HMD") interconnect configurations to support high-bandwidth (up to 50Gbps), near-zero latency VR HMDs and AR glasses with reduced weight and complexity.

Data Centers

GaugeChanger™ is an innovative and disruptive silicon technology that allows copper to extend much longer lengths without the cost and power penalty of optics that are used in data centers today. It works equally well at 25 Gbps NRZ and 50 Gbps PAM-4 enabling new connector standards of 100, 200 and 400 Gbps.

At present, optics are the primary alternative for data centers seeking high speed, at lengths longer than a few meters. GaugeChanger™, however, extends the life of copper with interconnects that are as fast and as thin as fiber, but at dramatically lower cost and power consumption.

USB 3.2 consumer interconnects

The Company's active VR8050 and VR8051 chips are the industry's first for ultra-thin implementations of USB 3.2 consumer interconnects, reducing the conductor cross section by up to 90% compared to passive cable implementations. Applications for this interconnect implemented with the new Type-C connector include ultra-thin laptops, tablets, mobile devices, solid state disks and wearable computing devices. The resulting ultra-thin cable enabled by this new Spectra7 technology allows the cable to transfer data at supercomputer speeds (up to 10 times faster) with a plug shell or over-mold and cable strain relief dimension that is thinner than the mobile device itself, a critical dimension when implementing Type-C connectors in tablets and smart phones, and up to 90% lighter than passive cable conductors that would need to be much larger in diameter.

Overall Financial Performance

Net loss for the three months ended March 31, 2021 was $1.1 million compared to a net loss of $1.9 million in the same period in the prior year. Revenue for the three month period ended March 31, 2021 increased by 379% compared to the same period in the prior year.

Gross margin percentage for the three month period ended March 31, 2021 increased by 3% from the same period in 2020. Expenditures during the three month period ended March 31, 2021 were approximately $1.4 million representing a decrease of 27% from the same period in 2020, due to employee furloughs and other controllable expense reductions to offset revenue losses from COVID-19 impacts.

Key Customers

During the three month period ended March 31, 2021, the Company derived approximately 97% of its revenue from two customers (three months ended March 31, 2020 – 97% from three customers).

Selected Financial Information

The table below sets forth certain key financial results for the three month period ended March 31, 2021 and 2020.

Three Months Ended March 31, (In thousands, except for loss per share)				
	2021	2020	Change	
	$	$	$	%
Revenue	556	116	440	379%
Cost of sales	239	53	186	351%
Gross margin	317	63	255	403%
Expenses	1,416	1,944	(528)	(27%)
Net loss	(1,099)	(1,881)	782	(42%)
Other comprehensive loss	(27)	879	(906)	(103%)
Total comprehensive loss	(1,125)	(1,002)	(124)	12%
Basic and diluted loss per share	(0.00)	(0.00)		
Weighted average number of shares outstanding	763,774	429,646		

As at (In thousands)				
	March 31, 2021	December 31, 2020	Change	
	$	$	$	%
Total assets	1,547	2,992	(1,445)	(48%)
Total liabilities	10,764	14,815	(4,051)	(27%)
Equity	(9,217)	(11,823)	2,606	(22%)
Total liabilities and equity	1,547	2,992	(1,445)	(48%)

Revenue and Gross Margin

The table below sets forth the details of revenue and gross margin for the three month period ended March 31, 2021 and 2020:

	Three Months Ended March 31, (In thousands)			
	2021	**2020**	**Change**	
	$	**$**	**$**	**%**
Revenue	556	116	440	379%
Cost of sales	239	53	186	351%
Gross margin	317	63	254	403%
Gross margin %	*57%*	*54%*	*3%*	

Revenue for the three months ended March 31, 2021 increased by $0.4 million representing an increase of 379% over the same period in the previous year as the Company ramped up shipments following COVID-19 business impacts.

Gross margin percentage for the three month period ended March 31, 2021 increased 3% compared to the same period in 2020.

Gross margin is a non-IFRS measure that does not have a standardized meaning prescribed by IFRS. Gross margin provides additional information to readers of the MD&A and Interim Financial Statements to enhance their understanding of the Company's financial performance. Gross margin comprises of revenue less cost of sales.

Expenses

The table below set forth the details of expenses for the three month period ended March 31, 2021 and 2020.

	Three Months Ended March 31, (In thousands)			
	2021	**2020**	**Change**	
	$	**$**	**$**	**%**
Research and development, net of investment tax credits and including amortization of licenses	551	752	(201)	(27%)
Sales and marketing	66	130	(64)	(49%)
General and administrative	276	273	3	1%
Depreciation of right-of-use assets	74	85	(11)	(13%)
Depreciation of property and equipment	57	82	(25)	(30%)
Share-based compensation	83	158	(75)	(47%)
Interest on lease obligation of right-of-use assets	2	13	(11)	(85%)
Accretion expense	542	499	42	8%
Foreign exchange gain (loss)	(235)	(48)	(235)	100%
	1,416	1,944	(528)	(27%)

Research and Development

Research and development expenses consist of salaries and related expenses, design software tool costs, travel, consumable materials used in product development, such as experimental wafers, non-production tape-out costs, technical services costs and contracted technical personnel.

Research and development expenses for the three month period ended March 31, 2021 decreased by 27% compared to the same period the previous year driven by decreased personnel expenses from employee furloughs as a result of COVID-19 and lower development expenses.

The Company is eligible for Irish refundable Scientific Research and Experimental Development ("SR&ED") investment tax credits for certain eligible expenditures incurred in Ireland. These tax refunds are netted against the Company's research and development expenses.

Sales and Marketing

Sales and marketing expenses consist primarily of salaries and related expenses, travel and the cost of trade shows, product promotion, customer technical support and market research.

Sales and marketing expenditures for the three month period ended March 31, 2021 decreased by 49% compared to the same periods the previous year. The decrease for the three month period was driven by decreased personnel expenses from employee furloughs as a result of COVID-19.

General and Administrative

General and administrative expenses relate to finance and administration and consist of salaries and related expenses, legal and audit fees, insurance, expenses related to public reporting and compliance, travel and other corporate expenses.

General and administrative expenses for the three month period ended March 31, 2021 increased by 1% as compared to the same period the previous year.

Depreciation of Right-of-use Assets

The Company's right-of-use assets recognized on adoption of IFRS 16 on January 1, 2019 are amortized over their remaining lease term. Depreciation of right-of-use for the three month period ended March 31, 2021 compared to the same period the previous year increased by 13%.

Depreciation of Property and Equipment

Depreciation of property and equipment for the three month period ended March 31, 2020 compared to the same period the previous year decreased by 30%. The lower depreciation expense is due to fewer capital investments made in 2020.

Share-based Compensation

Share-based compensation recognizes the expense associated with the fair value of stock options and restricted share units ("RSUs") granted to employees, officers, directors and consultants which are estimated at the date of grant using the Black Scholes option pricing model and recognized over the period in which the options vest.

Share-based compensation expense for the three months ended March 31, 2021 decreased by 47% over the same period the previous year due to cancellation of options and restricted share units resulting from employee terminations during the first quarter of 2021.

Accretion Expense

Accretion expense represents the change in the stated value of the Convertible Debentures (as defined below) measured at amortized cost and also includes interest expense for the period. The Convertible Debentures are carried at amortized cost using an effective rate of interest. Under the effective interest rate method, the accretion becomes higher as maturity approaches.

Foreign Exchange Loss

The loss or gain on foreign exchange is caused by changes in the value of the Canadian dollar, Euro and Chinese Yuan relative to the US dollar, the amount of exposed assets and liabilities such as cash, accounts receivables and accounts payable and the difference in exchange rate at the time expenses in Canadian dollars, Euros and Chinese Yuan are booked and paid. Gains occur when the non-US currency strengthens and the Company holds exposed net assets in those funds or when the non-US currency weakens and the Company holds net exposed liabilities. Conversely, losses occur when the non-US currency weakens and the Company holds net exposed assets in those funds or when the non-US strengthens and the Company holds net exposed liabilities.

Net Loss and Other Comprehensive Loss

Net loss for the three months ended March 31, 2021 was $1.1 million compared to a net loss of $1.9 million in the same period in the prior year. The decrease in net loss is attributed to higher revenue, offset by lower operating costs during the three months ended March 31, 2021. Other comprehensive loss relates to the unrealized foreign currency effect of translating the Company, whose functional currency is Canadian dollars, to US dollars for financial reporting purposes.

The operating results of Spectra7 Microsystems Corp., and Si Bai Ke Te (Dongguan) Electronics Trading Co. Ltd, both wholly-owned subsidiaries of the Company, are translated from their functional currencies of Canadian Dollars (CDN) and Chinese Yuan Renminbi (CNY), respectively, into the Company's presentation currency of USD at the end of each reporting period, with the difference being recorded in other comprehensive income.

Loss per Share

Basic earnings and loss per share is calculated by dividing the profit and loss attributable to common shares of the Company by the weighted average number of common shares outstanding during the period. Diluted earnings and loss per share is calculated by adjusting the earnings and number of shares for the effects of dilutive options and other potentially dilutive securities. The weighted average number of common shares used as the denominator in calculating diluted loss per share excludes un-issued shares related to warrants, restricted share units and employee stock options, as they are anti-dilutive.

Basic and diluted loss per share for the three month period ended March 31, 2021 was $0.00 per share as compared to $0.00 per share for the same period in 2020.

Summary of Quarterly Data

The table below sets forth selected financial data for the most recent eight quarters ended March 31, 2021.

(In thousands, except for loss per share)

	Fiscal 2019			Fiscal 2020				Fiscal 2021
	Jun 30	**Sept 30**	**Dec 31**	**Mar 31**	**Jun 30**	**Sept 30**	**Dec 31**	**Mar 31**
	$	**$**	**$**	**$**	**$**	**$**	**$**	**$**
Revenue	966	1,370	928	116	257	282	377	556
Cost of sales	433	555	457	53	114	126	211	239
Gross margin	533	815	471	63	143	156	166	317
Expenses	3,272	3,561	3,178	1,944	1,817	1,404	1,519	1,416
Net loss	(2,739)	(2,746)	(2,707)	(1,881)	(1,674)	(2,746)	(1,353)	(1,099)
Other comprehensive (loss) gain	(98)	143	(171)	879	(316)	(188)	(458)	(27)
Total comprehensive loss	(2,837)	(2,603)	(2,878)	(2,978)	(1,990)	(2,934)	(1,811)	(1,125)
Loss per share								
Basic and Dilutive	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.00)

Revenues in the consumer semiconductor industry are subject to seasonality driven by consumer purchasing cycles and manufacturers unique product development cycles.

Historically, the Company's operating results have fluctuated on a quarterly basis and management believes they will continue to fluctuate. If anticipated sales and shipments in any quarter do not occur as and when expected, expenses and inventory levels can be disproportionately high and operating results for that quarter and future quarters may be adversely affected. In addition, because of historical variations in the operating results, the limited operating history of the Company and the rapid evolving nature of the business, period to period comparisons of the Company's operating results, including gross margin and operating expenses as a percentage of total revenue, are not necessarily meaningful and should not be relied upon as indication of future performance.

Issued and Outstanding Share Capital

The Company's authorized capital consists of an unlimited number of common shares, of which 1,026,962,343 common shares are issued and outstanding as of the date of this MD&A.

At the annual and special meeting of holders of common shares (the "Shareholders") held on June 15, 2017, Shareholders approved amendments to both the Company's stock option plan (the "Stock Option Plan") and the RSU plan (the "RSU Plan") to provide that the combined maximum number of common shares reserved for issuance under both the Stock Option Plan and the RSU Plan, inclusive of existing stock options and RSUs, shall not exceed 29,450,000 common shares. At the annual and special meeting of shareholders in June 2019, shareholders approved amendments to both the Stock Option Plan and the RSU Plan to provide that the combined maximum number of common shares reserved for issuance under both the Stock Option Plan and the RSU Plan, inclusive of existing stock options and RSUs, shall not exceed 47,838,517, representing approximately 9% of the issued and outstanding common shares as of the date of this MD&A.

At March 31, 2021, 16,667,738 common shares were reserved under the Stock Option Plan and 26,980,950 common shares were reserved under the RSU Plan, representing an aggregate of 43,368,718 common shares available for grant or award under the Stock Option Plan and/or the RSU Plan (December 31, 2020 - 43,733,061 common shares).

Since March 31, 2021, 100,000 RSUs were issued, and 580,000 Options were cancelled. As of the date of this MD&A, options to purchase an aggregate of up to 15,807,729 common shares and 27,080,623 RSUs are outstanding, representing an aggregate of 42,888,718 common shares available for grant or award under the Stock Option Plan and/or the RSU Plan. 27,080,623 common shares have been issued under the RSU Plan.

As of the date of this MD&A, the Company has outstanding warrants to purchase (a) up to 2,205,010 common shares at an exercise price of CDN $0.30 per common share until February 24, 2022, (b), up to 14,665,282 common shares at an exercise price of CDN $0.1575 per common share until July 6, 2023, (c), up to 17,653,165 common shares at an exercise price of CDN $0.225 per common share until October 30, 2023, (d) up to 79,215,781 common shares at an exercise price of CDN $0.08 per common share until August 21, 2024, and (e) 12,565,531 common shares at an exercise price of CDN $0.05 per common share until August 21, 2024, (f) 10,523,452 common shares at an exercise at an exercise price of CDN $0.05 per common share until July 15, 2025, (g) 8,338,960 common shares at an exercise price of CDN $0.05 per common share until September 25, 2025, (h) 80,940,126 common shares at an exercise price of CDN $0.05 per common share until January 15, 2026, and (i) 183,390,367 common share at an exercise price of CDN $0.05 per common share until May 14, 2026. The Company also has outstanding broker warrants entitling to holder to purchase up to 11,364,937 Spring 2021 Units (defined below) at an exercise price of CDN$0.03 per Spring 2021 Unit until May 14, 2023.

Convertible Debt

In January 2018, the Company issued 7.0% senior unsecured convertible debentures of the Company (each, a “Convertible Debenture”) in the principal amount of CDN $15.567 million. The principal amount of each Convertible Debenture was convertible into common shares at the option of the holder at any time prior to the close of business on the last business day immediately preceding the maturity date of January 9, 2021, at a conversion price of CDN $0.35 per share, subject to adjustment upon certain customary events. Holders converting their Convertible Debentures will receive accrued and unpaid interest thereon for the period from and including the date of the latest interest payment date to, but excluding, the date of conversion.

On December 23, 2020, the Company entered into a first supplemental debenture indenture (the “Supplemental Indenture”) which amended certain terms of the Company’s existing Convertible Debentures which were due to mature in January 2021. Pursuant to the Supplemental Indenture, the maturity date of the Convertible Debentures was extended 18 months from January 9, 2021 to July 9, 2022, subject to adjustment, and the conversion price of the principal amount of the Convertible Debentures was reduced from CDN $0.35 per common share to CDN $0.05 per common share until January 9, 2022 and to CDN $0.10 per common share until July 9, 2022. In consideration for the amendments, the Company increased the outstanding principal obligations of the Convertible Debentures by 10%. The additional 10% of principal obligations is not convertible into common shares (the “Bonus Principal”).

During the three month period ended March 31, 2021, the Company prepaid CDN $1,995,000 of principal of the Convertible Debentures and the holders of the Convertible Debentures converted an aggregate of CDN $3,928,000 of principal at a conversion price of CDN $0.05 per common share, resulting in the issuance of 78,560,000 common shares. The Company issued an additional 10,314,061 common shares in payment of the make-whole interest amount owing pursuant to the converted Convertible Debentures and the Company paid a total of CDN $16,523 in accrued interest on the converted Convertible Debentures.

Subsequent to March 31, 2021, the Company expects to issue 1,809,773 common shares in payment of the make-whole interest amount and paid CDN $12,201 in accrued interest owing pursuant to the conversion of CDN $745,000 of convertible debentures which were converted during the three months ended March 31, 2021.

As of the date of this MD&A, CDN $6,975,000 of principal amount of Convertible Debenture and CDN $1,289,800 of Bonus Principal remains outstanding.

Equity Financings

On January 15, 2021, the Company completed the first tranche of a non-brokered private placement (the “January 2021 Private Placement”) of 114,013,763 units of the Company (“January 2021 Units”) at a price of CDN $0.03 per January 2021 Unit for gross proceeds of approximately CDN $3,420,413 (USD $2,682,466). On February 12, 2021, the Company completed the second tranche of the January 2021 Private Placement, which consisted of the issuance of 37,995,866 January 2021 Units for gross proceeds of CDN $1,139,876 (USD $893,951) and the issuance 9,870,626 January 2021 Units to settled CDN $296,119 owing to an arm's length party. Each January 2021 Unit consists of one common share and one-half of one common share purchase warrant (each whole warrant, a "January 2021 Warrant") with each January 2021 Warrant being exercisable into one common share at an exercise price of $0.05 for a period of five years from the date of issuance, subject to adjustment upon certain customary events. The expiry date of the January 2021 Warrants can be accelerated by the Company at any time following the date that is 4 month and one day after closing of the January 2021 Private Placement and prior to the expiry date of the January 2021 Warrants if the closing price of the common shares on the TSX Venture Exchange is greater than $0.08 for any 10 non-consecutive trading days.

On April 12, 2021, the Company announced that it intends to sell, on a brokered private placement basis (the “Spring 2021 Private Placement”), in one or more tranches, up to 220,000,000 units (the "Spring 2021 Units"). The Company has engaged Cormark Securities Inc. to offer the Spring 2021 Units for sale on a best efforts agency basis, at an issuance price of CDN$0.03 per Spring 2021 Unit. Each Spring 2021 Unit consists of one common share and one common share purchase warrant (each whole warrant, a "Spring 2021 Warrant") with each Spring 2021 Warrant being exercisable into one common share for a period of five years from the date of issuance, subject to adjustment upon certain customary events.

On May 14, 2021, the Company closed the first tranche of the Spring 2021 Private Placement consisting of the issuance of 170,689,567 Spring 2021 Units. The Company also completed a concurrent non-brokered offering of 12,700,800 Spring 2021 Units. In aggregate, the gross proceeds to the Company from the brokered and the non-brokered private placements was approximately CDN $5.5 million (USD $4.5 million). In connection with the closing, the Company issued 11,364,937 broker warrants, with each broker warrant being exercisable into a Spring 2021 Unit at a price of CDN $0.03 for a period of two years.

Liquidity and Capital Resources

Historically, the Company has funded its operations from the sale of equity securities and from debt financing.

The Company’s objectives are to grow revenue by expanding its product lines and entering new markets, to finance investment in research and development and to ensure that capital resources are readily available to meet obligations as they become due. Liquidity risk arises when the Company is challenged to fund its on-going operations through working capital or either the sale of equity or bank loans.

The Company may face challenges in generating sufficient amounts of cash and cash equivalents in the short-term and potentially beyond due to such factors as:

- challenges in the supply chain whereby lead times to secure components can run between 8-20 weeks and often require the Company to prepay or make deposits to secure the components;
- delays in the development of new products which can delay market entry dates;
- acceptance of new products in the market and sales volatility as a result of transitions to new product lines;
- lower than expected adoption of the products of our end customers in newer markets could impact the orders received by the Company and its revenue outlook;
- payments of accrued interest due on the conversions by the holders of the Convertible Debentures to common shares;
- semi-annual interest payments which commenced on June 30, 2018 and end on January 22, 2022, including a semi-annual interest payment due on June 30, 2021 anticipated to be approximately $0.3 million; and
- repayment of outstanding Convertible Debentures on July 9, 2022.

The following table summarizes the working capital and cash as at March 31, 2021 and December 31, 2020:

	As at (In thousands)			
	March 31, 2021	December 31, 2020	Change	
	$	$	$	%
Current assets	1,305	574	731	127%
Current liabilities	5,065	5,399	(334)	(6%)
Working capital deficiency	(3,760)	(4,825)	1,065	(22%)
Cash	533	35	498	1423%

As of March 31, 2021, the Company had a working capital deficiency of $3.8 million, compared to a working capital deficiency of $4.8 million as at December 31, 2020. Current assets at March 31, 2021 were higher with an increase in cash balance. Current liabilities decreased from the convertible debt payment and as a result of higher payables.

The Company is dependent on growth in revenue in the next year to fund future operations. Should expected revenues not materialize, the Company may require further sale of debt or equity securities, additional bank financing or other sources of funds in order to meet its obligations. See the section “Risks and Uncertainties” section of the Company’s Annual MD&A.

The Company is actively considering different financing options to provide additional capital for the Company to meet its business objectives. Although the Company has, in the past, been successful in obtaining financing, there are inherent risks related to the Company’s ability to raise capital in the future and there is no assurance that the Company will be able to continue to do so in the future on similar terms as past financings, or at all.

The following table summarizes the cash inflows and outflows by activity for the periods indicated:

	Three Months Ended March 31, (In thousands)			
	2021	2020	Change	
	$	$	$	%
Cash generated by (used in)				
Operating activities	(1,180)	(558)	(622)	111%
Financing activities	1,707	419	1,288	307%
Investing activities	(7)	-	(7)	100%
Effect of exchange rate changes	(21)	88	(4,766)	5416%
Increase (Decrease) in cash	498	(51)	549	1076%

Operating Activities

Cash used in operating activities for the years ended March 31, 2021 and 2020 decreased by $1.2 million and $558 thousand, respectively as the Company received proceeds raised in the January 2021 Private Placement and the Payroll Protection Program grant mixed with a reduction in operating expenses. Without external sources of financing, the viability of the Company as an operating business is dependent on its ability to generate positive cash flows from operating activities in the short and long-term.

Financing Activities

Net cash inflow for the three months ended March 31, 2021 of $1.7 million consisted of the cash received on the January 2021 Private Placement.

Investing Activities

The Company did not invest in any laboratory and manufacturing equipment during the three month period ended March 31, 2021.

Off-Balance Sheet Arrangements

The Company currently has no off-balance sheet arrangements.

Transactions Between Related Parties

The Company transacts with key individuals from management and its directors who have authority and responsibility to plan, direct and control the activities of the Company. The nature of these dealings was in the form of payments for services rendered in their capacity as employees and as directors of the Company.

The Company's key management personnel are comprised of the Board of Directors and current and former members of the executive team of the Company.

Key management personnel compensation is comprised of the following:

	Three Months Ended March 31,	
	2021	2020
	$	$
Salaries, fees and short-term benefits	**80,999**	1,189,038
Share-based benefits	**65,933**	140,322
	146,932	1,329,360

The issuance of January 2021 Units and Spring 2021 Units to insiders of the Company in the January 2021 Private Placement and the Spring 2021 Private Placement are considered to be “related party transactions” as defined in MI 61-101, however, the Company relied on exemptions from the formal valuation and minority shareholder approval requirements provided under MI 61-101 on the basis that the aggregate value of the common shares issued to insiders did not exceed 25% of the fair market value of the Company’s market capitalization.

Critical Accounting Estimates

The Company’s significant accounting policies and accounting estimates under IFRS are contained in the Financial Statements (see Note 3 to the Annual Financial Statements). Certain of these policies involve critical accounting estimates as they require us to make particularly subjective or complex judgments about matters that are inherently uncertain and because of the likelihood that materially different amounts could be reported under different conditions or using different assumptions.

Changes in Accounting Policies

The Statements are prepared in accordance with IFRS. The Company adopted and implemented IFRS 16 Leases on January 1, 2019. There were no changes in accounting policies for the three months ended March 31, 2021 and no new accounting standards.

Financial Instruments and Risk Management

The Company may be exposed to risks of varying degrees of significance that affect its ability to achieve its strategic objectives. The main objectives of the Company's risk processes are to ensure that the risks are properly identified and that the capital base is adequate in relation to those risks. The principal risks to which the Company is exposed to are as follows:

Fair value

The fair value of cash and cash equivalents, trade and other receivables, investment tax credits, trade and other payables, obligations under finance lease, lease obligations, promissory notes to related parties, and license liabilities approximate their carrying values due to their immediate or short-term maturity.

Foreign currency risk

The Company's revenues and cost of sales are denominated in United States dollars. The Company incurs expenses in United States dollars, Euros, Canadian dollars and Chinese Yuan. The Company has historically raised capital denominated in Canadian dollars. The term loan and Loan Facility were in United States dollars. The Company is therefore exposed to gains or losses due to fluctuations in foreign currency exchange rates. Management actively monitors the movement in foreign exchange rates and their potential impact on the Company's financial results but does not actively hedge its foreign currency risk.

Interest rate risk

Interest rate risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate due to changes in market interest rates. Interest rate risk associated with the Company's Convertible Debentures arises from fluctuations in interest rates and the degree of volatility of these rates. The Convertible Debentures provides for an annual rate of 7%. The Company does not use derivative financial instruments to reduce its exposure to interest rate risk.

Credit risk

Credit risk is the risk of loss associated with counterparty's inability to fulfill its payment obligations. The Company's credit risk is primarily attributable to trade and other receivables and money held in the Company's bank accounts. The Company mitigates this risk by monitoring the credit worthiness of its customers and only dealing with creditworthy counterparties.

Liquidity risk

The Company's objective in managing liquidity risk is to maintain sufficient readily available reserves in order to meet its liquidity requirements at any point in time. The Company achieves this by maintaining sufficient cash, managing cash from operations and if required through financing activities.

Internal Control over Financial Reporting

Internal control over financial reporting ("ICFR") is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with applicable IFRS. Internal control over financial reporting should include those policies and procedures that establish the following:

- maintenance of records in reasonable detail, that accurately and fairly reflect the transactions and dispositions of assets;
- reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with applicable IFRS;
- receipts and expenditures are only being made in accordance with authorizations of management or the Board of Directors; and

- reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial instruments.

The Company's management, with the participation of the CEO and CFO, assessed the effectiveness of the Company's internal controls over financial reporting and concluded that as at March 1, 2021, the Company's internal control over financial reporting was effective.

During the three months ended March 31, 2021, the Company did not make any significant changes to its internal controls over financial reporting that would have materially affected, or reasonably likely to materially affect, its internal controls over financial reporting.

Limitations of Disclosure Controls and Procedures and Internal Control over Financial Reporting

The Company's management, including the CEO and CFO, believe that due to inherent limitations, any disclosure controls and procedures or internal control over financial reporting, no matter how well designed and operated, can provide only reasonable, not absolute, assurance of achieving the desired control objectives. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that any design will not succeed in achieving its stated goals under all potential future conditions. Accordingly, because of the inherent limitations in a cost effective control system, misstatements due to error or fraud may occur and not be detected. Additionally, management is required to use judgment in evaluating controls and procedures.

Additional Information

Additional information relating to the Company can be found on SEDAR at www.sedar.com.

Approval

The Audit Committee of the Company has approved the disclosure contained in this MD&A.