May 11, 2016

MANAGEMENT'S DISCUSSION & ANALYSIS
(All figures are expressed in thousands of Canadian dollars)

This Management's Discussion & Analysis ("MD&A") for the three months ended March 31, 2016 has been prepared to help investors understand the financial performance of the Company in the broader context of the Company's strategic direction, the risks and opportunities as understood by management, and the key success factors that are relevant to the Company's performance. Management has prepared this document in conjunction with its broader responsibilities for the accuracy and reliability of the financial statements, as well as the development and maintenance of appropriate information systems and internal controls to ensure that the financial information is complete and reliable. The Finance and Audit Committee of the Board of Directors has reviewed this document and all other publicly reported financial information for integrity, usefulness, reliability and consistency.

This MD&A is dated May 11, 2016 and should be read in conjunction with the condensed interim consolidated financial statements for the three months ended March 31, 2016, and the audited annual consolidated financial statements of the company for the years ended December 31, 2015 and 2014 ("the Annual Financial Statements"), as well as management's discussion and analysis for the year ended December 31, 2015.

FORWARD LOOKING STATEMENTS

Certain statements contained in this MD&A constitute forward-looking information within the meaning of securities law. Forward-looking information may relate to our future outlook and anticipated events or results and may include statements regarding our future financial position, business strategy, budgets, litigation, projected costs, capital expenditures, financial results, taxes and plans and objectives. In some cases, forward-looking information can be identified by terms such as "may", "will", "should", "expect", "plan", "anticipate", "believe", "intend", "estimate", "predict", "potential", "continue" or other similar expressions concerning matters that are not historical facts. These statements are based on certain factors and assumptions regarding, among other things, expected growth, results of operations, performance and business prospects and opportunities. While we consider these assumptions to be reasonable based on information currently available to us, they may prove to be incorrect. Forward looking-information is also subject to certain factors, including risks and uncertainties that could cause actual results to differ materially from what we currently expect. These factors include, among other things, the availability of funds and resources to pursue development projects, the successful and timely completion of clinical studies, and the ability of the Company to take advantage of business opportunities, the granting of necessary approvals by regulatory authorities as well as general economic, market and business conditions. For more exhaustive information on these risks and uncertainties you should refer to our most recently filed Annual Information Form which is available at www.sedar.com. Forward-looking information contained in this MD&A is based on our current estimates, expectations and projections, which we believe are reasonable as of the current date. You should not place undue importance on forward-looking information and should not rely upon this information as of any other date. While we may elect to, we are under no obligation and do not undertake to update this information at any particular time.

This document and the related consolidated financial statements can also be viewed on the Company's website at www.spectraldx.com and at www.sedar.com. The Company's Annual Information Form and Management Information Circular are also available on these websites.

INTRODUCTION

Spectral Medical Inc. (ñSpectralò or the Companyò) is strategically focused on the development and commercialization of a treatment for septic shock utilizing its Endotoxin Activity Assay (EAAÊ) and the ToraymyxinÊ (ñPMXò) therapeutic. If approved, this will be the first targeted therapy guided by a specific diagnostic in the area of sepsis. The Company also manufactures and sells certain proprietary reagents.

EAA™

Spectral has pioneered the development of biochemical markers for the clinical syndrome known as ñseptic shockò. In 2003, the Company achieved U.S. Federal Drug Administration (ñFDAò), Health Canada and European CE clearance of the Endotoxin Activity Assay (ñEAAÊ ò) for the first recognized rapid test for the risk of developing sepsis in the Intensive Care Unit (ñICUò). In North America alone over 1,000,000* patients are diagnosed with the clinical syndrome of sepsis annually. Between 30% and 50% of patients with severe sepsis and septic shock die in the ICU. Earlier identification and treatment of patients at risk for sepsis reduces mortality and saves significant cost by reducing the length of stay in the ICU and by helping to guide therapeutic interventions. Spectralôs EAAÊ endotoxin measurement is the only FDA cleared diagnostic for this indication currently on the market.

PMX

PMX is a therapeutic hemoperfusion device that removes endotoxin from the bloodstream. PMX has been used in more than 150,000 patients to date globally and has demonstrated in clinical trials that it safely and effectively removes endotoxin and reduces mortality in patients with severe sepsis and septic shock.

Results of a randomized controlled trial (the EUPHAS trial) were published in the *Journal of the American Medical Association* (JAMA, 2009; Vol. 301 No. 23, 2445-2452). The results demonstrated that when PMX is added to conventional therapy, there is significantly improved hemodynamics and organ function, and reduced 28-day mortality in patients with severe sepsis and septic shock in comparison to those patients in the conventional therapy group.

PROPRIETARY REAGENTS

Spectral develops, produces and markets recombinant proteins, antibodies and calibrators. These materials are sold for use in research and development as well as in products manufactured by other diagnostic companies through non-exclusive license and supply agreements. Royalty revenues are earned from these license arrangements based on a percentage of end user sales of Troponin I.

CLINICAL DEVELOPMENT

The Companyôs only clinical development program is focused on obtaining U.S. FDA approval for PMX.

On March 6, 2009, Spectral signed a license agreement with Toray Industries, Inc. of Japan granting Spectral the exclusive development and commercial rights in the U.S. for PMX, a therapeutic device for the treatment of septic shock that removes endotoxin from the bloodstream. Under the terms of the agreement, Spectral is seeking U.S. FDA approval for PMX and intends to commercialize the product, together with its Endotoxin Activity Assay (EAAÊ), the only FDA cleared diagnostic for the measurement of endotoxin.

** Ref: Martin. G., Expert Rev Anti Infect Ther.2012 June; 10(6): 701-706*

On February 26, 2010, the Company received final approval of its Investigation Device Exemption (ñIDEò) from the U.S. FDA, which permits the Company to conduct a pivotal trial for PMX (the EUPHRATES trial) in the United States.

In October, 2010, the Company announced the initiation of its EUPHRATES trial (Evaluating the Use of Polymyxin B Hemoperfusion in a Randomized controlled trial of Adults Treated for Endotoxemia and Septic shock) in the United States comparing standard of care versus PMX plus standard of care.

In January, 2013, the first interim analysis was conducted on the 76 randomized patients who were followed for 28 days. The Data Safety and Monitoring Board (ñDSMBò), consisting of experts in the fields of critical care medicine, infectious disease, nephrology, biostatistics and regulatory affairs, reviewed the totality of the data set for evidence of safely concerns, such as adverse events and/or adverse device effects, related to the use of the PMX cartridge. The results from the first interim safety analysis by the DSMB stated that there are no safety issues to date concerning the application of the PMX cartridge to patients in the EUPHRATES trial.

On January 27, 2014, the DSMB met to review the results of the second interim analysis after 184 patients had been randomized and followed for 28 days in accordance with the Statistical Analysis Plan agreed to with the FDA. On that date, the DSMB reported that stopping rules for safety, efficacy and futility were not met and that the trial should continue. The DSMB did not, however, provide the planned sample size recalculation at that time. The DSMB requested that additional analysis be performed by the Clinical Research Organization on the original 184 patients prior to the recalculation.

The Company received the recommendations of the DSMB pursuant to its analysis on April 10, 2014, which recommendations included an additional exclusion criterion. The DSMB recommended that patients with a Multiple Organ Dysfunction Score (MODS) score of Ò9 no longer be eligible for randomization in the trial. The MODS score is a recognized scoring system used to evaluate the degree of organ dysfunction which exists in patients with sepsis. This recommendation is consistent with data from previous PMX trials, which demonstrated that the PMX column is most effective in reducing mortality rates of sicker patients.

In late September, 2014, pursuant to the protocol change in April, 2014 to effect the exclusion criterion that further refined patient selection to sicker patients, the FDA recommended that only data for those patients randomized after the change be considered in the determination of whether a statistical significant outcome related to the primary end point of 28-day mortality had been achieved.

In April, 2015, the FDA accepted the Company's formal plan, and related content, for a rolling Pre Market Approval (PMA) submission consisting of four separate modules. The first three modules include physical, chemical and safety testing data, as well as requisite manufacturing information. All three modules have now been filed with the FDA. The Company expects to file the fourth and final module providing clinical data in the second half of 2016 as an anticipated final step in the PMA approval process.

On September 14, 2015 the Company announced that the sample size for its EUPHRATES trial had been reset to 446 evaluable patients, of which 176 patients randomized after the protocol change on April 10, 2014 will be considered for determination of the primary endpoint of 28-day mortality as recommended by the FDA. The trial remains powered at 80 percent and the alpha remains at <0.05 for its primary end point. The methodology for the sample size recalculation was recommended by the trial's Steering Committee and accepted by the DSMB without further comment. The Company submitted a revised statistical plan to the FDA related to the sample size change and it was formally accepted.

In order to determine the appropriate sample size, statistical analysis was performed based on the actual composite mortality rate of patients randomized in the trial (approximately 50 percent) and the actual mortality rate of similar patients who were treated with the PMX medical device in Europe using the same protocol as the EUPHRATES trial (approximately 40 percent). The mortality data for these treated patients was drawn from a validated patient registry which has been tracking such information for over

three years. The sample size recalculation is further supported by independent published data showing a predicted mortality rate in the range of 60 to 65 percent for patients in septic shock with a multiple organ dysfunction score ("MODS") similar to those being randomized in the Company's trial.

The Company is on track to recruit the required 446 evaluable trial patients in the first half of 2016. Provided this target is achieved, top line trial data should be available by the end of the third quarter and the final PMA module should be submitted to the FDA shortly thereafter.

The EUPHRATES trial is currently the only active Phase III study in the area of septic shock.

PMX is marketed in Japan and Europe and has been used to treat more than 150,000 sepsis patients safely and effectively. Spectral's EAA® can identify patients that will benefit from PMX and monitor the effects of the treatment. This combination of the EAA® diagnostic and the PMX therapeutic has been utilized by clinicians in Europe since November 2007 and has demonstrated a significant reduction in mortality. The market opportunity for Spectral is large, as the combined diagnostic and therapeutic product is expected to fulfill a major unmet need for the approximately 350,000 patients who develop severe sepsis or septic shock in the U.S. each year. Over half of these patients potentially have highly elevated levels of endotoxin. The U.S. market potential for this treatment is estimated at over $3 billion.

COMMERCIALIZATION PROGRESS

The Company has taken a number of other operational and strategic measures to prepare itself for commercialization.

These measures include the development of a proprietary stand-alone pump dedicated to the Company's therapy that enables treatment delivery in the ICU and reduces reliance on third party instrumentation. The addition of this state of the art equipment will enable the Company to provide a fully integrated and user friendly septic shock treatment system to the ICU. The stand-alone pump is also designed to provide an open platform for other hemoperfusion cartridges and to deliver continuous renal replacement therapy ("CRRT") when indicated. Approval of the instrument by Health Canada and 510K approval in the United States are anticipated in the first half of 2016.

Other commercialization initiatives include new packaging for the EAA® diagnostic to simplify usage and reduce lab technician time in hospitals; the automation and scale up of the manufacturing process at Spectral's plant in Toronto, Canada to increase production capacity for the EAA® diagnostic; and last, the Company is planning for a sales and distribution infrastructure capable of servicing a large potential market in anticipation of timely FDA approval and subsequent commercialization of its unique treatment for septic shock.

OPERATIONS

During the first three months in 2016 the Company's activities focused on implementation of the EUPHRATES trial.

The Company also continued to sell its EAA® diagnostic and its proprietary reagents under the terms of existing commercial arrangements.

OPERATING RESULTS

REVENUE

Revenue for the months ended March 31, 2016 was $1,062 compared to $877 for the same period in the prior year, representing an increase of approximately 21%. Revenues are subject to timing of customer orders and shipments, but are expected to be consistent with levels achieved in 2015.

EXPENSES

Operating costs for the three months ended March 31, 2016 were $4,069, compared to $3,223 for the same period in the preceding year, an increase of $846. The Company continues to maintain a low cost operating structure for its base business operations.

Most expenditures are incurred for the Company's EUPHRATES clinical trial and will vary depending on the timing and level of patient enrolment. Enrolment levels in the first quarter of 2016 were higher than for the same period in 2015.

EPHRATES trial costs (as disclosed in Note 11 of the consolidated financial statements) were $2,295 for the first quarter of 2016 compared to $1,695 for the three months ended March 31, 2015. A significant portion of EUPHRATES trial costs is comprised of consulting and professional fees paid to the trial's clinical research organization, product distribution centre, co-ordinating centre and other clinical and regulatory consultants. Cumulative trial costs since inception amounted to $35,154 as of March 31, 2016.

Employee benefits costs of $1,241 in the first quarter increased from $1,004 in the first three months of 2015, which increase was attributable primarily to the higher number and higher fair value of share options granted in the first quarter of 2016 as compared to those granted in the first quarter of the prior year.

LOSS

For the three months ended March 31, 2016, the Company reported a loss of $2,994 compared to a loss of $2,322 for the three months ended March 31, 2015 due primarily to higher costs for its EUPHRATES trial as described above.

COMMON SHARES OUTSTANDING

The total number of common shares outstanding for the Company was 206,733,209 as at March 31, 2016.

BALANCE SHEET, FINANCIAL CONDITION AND LIQUIDITY

Cash of $12,861 at March 31, 2016, increased by $6,492, from $6,369 at December 31, 2015. This increase is attributed to the following:

Cash operating losses, including working capital	$(3,123)
Net proceeds of bought deal prospectus offering	9,402
Proceeds from share options exercised	266
Property and equipment, net of proceeds of disposal	(53)
	$6,492

FINANCINGS

i. Private placements

On June 10, 2014, the Company entered into agreements for a non-brokered private placement of up to $18,200 (the ñOfferingò), comprised of a Tranche ñAò component and a Tranche ñBò component.

The Tranche ñAò component of the private placement, in the amount of $13,200, was completed on July 25, 2014. The Company received net proceeds of $12,816 which is being used to fund its EUPHRATES trial and for working capital and general corporate purposes.

The Tranche ñBò component of the private placement was completed on April 1, 2015. Toray purchased 9,041,592 Shares at a subscription price of $0.553 per common share (representing the 20 day volume weighted average trading price of the Shares on the TSX for the 20 day period ended March 13, 2015) for aggregate gross proceeds of $5,000.

In connection with the Toray offering, Birch Hill exercised their anti-dilution rights and acquired 2,007,872 Shares at the subscription price of $0.553 per common share, for aggregate gross proceeds of $1,110.

In total, the Company issued 11,049,464 Shares for aggregate gross proceeds of $6,110. The Company received net proceeds of $6,021 which is being used to fund its EUPHRATES trial and for working capital and general corporate purposes.

ii. Bought deal prospectus offering

On February 18, 2016 the Company closed a bought deal prospectus offering (ñthe Offeringò) resulting in the issuance of 14,300,000 Shares for gross proceeds of $10,010.

On February 24, 2016, an additional 806,804 Shares were issued by the Company resulting in gross proceeds of $565 in connection with the underwritersô exercise of their over-allotment option.

In total, the Company issued 15,106,804 Shares for aggregate gross proceeds of $10,575. The Company received net proceeds of $9,402 which will be used to fund its EUPHRATES trial and for working capital and general corporate purposes.

The Company also issued 906,408 broker warrants to the underwriters representing 6% of the total number of shares sold pursuant to the bought deal financing. Each broker warrant entitles the holder thereof to acquire one Share at a price of $0.70 per Share for a period of 24 months from the closing date.

NORMAL COURSE ISSUER BID

On December 15, 2014 the Company announced that the Toronto Stock Exchange (the TSXò) approved its notice of intention to make a normal course issuer bid (ñNCIBò) for its outstanding Shares. Pursuant to the notice, the Company was able to purchase up to 3,594,745 of its Shares, representing approximately 2% of its issued and outstanding Shares, during the twelve month period commencing December 17, 2014 and ending December 16, 2015.

During the three month period ended March 31, 2015, the Company repurchased 90,000 Shares under this NCIB for $55. All Shares purchased were cancelled.

RELATED PARTIES

All related parties and the respective transactions have been disclosed in Note 14 to the condensed interim consolidated financial statements for the three months ended March 31, 2016 and 2015.

i. Toray Industries, Inc. (ñTorayò)

Toray holds 45,630,105 Shares of the Company as at March 31, 2016, representing approximately 22.1% (2015 ï 22.4%) of Spectralôs issued and outstanding capital, calculated on a non-diluted basis.

Toray is entitled to nominate one director (the ñToray Representativeò) to the Board of Directors as long as it owns in the aggregate not less than 10% of the Shares issued and outstanding calculated on a non-diluted basis.

ii. Birch Hill Equity Partners Management Inc.(ñBirch Hillò)

Birch Hill, through a number of its funds and an investee company, holds 33,517,718 Shares of the Company as at March 31, 2016 representing approximately a 16.2% (2015 ï 17.3%) ownership interest, calculated on a non-diluted basis.

Birch Hill is entitled to nominate one director to the Companyôs Board of Directors so long as it owns in aggregate not less than 5% of the issued and outstanding Shares of the Company calculated on a non-diluted basis.

iii. Key management consists of the Companyôs four executive officers and itsôBoard of Directors.

There are no other related party transactions.

OUTLOOK

The Company expects to continue to generate sales in 2016 pursuant to its existing and new commercial arrangements for EAAÊ and its proprietary biological reagents. The strategic focus in 2016 will be on the successful completion of the EUPHRATES clinical trial, achievement of FDA approval of the PMX treatment and getting prepared for potential market launch in the first half of 2017. As part of this process, the Company also intends to engage in dialogue with potential business partners as one alternative to commercialization in the very large U.S. market.

As at March 31, 2016 the Company had $12,861 cash available to fund its operations.

BUSINESS RISKS

The Company's operations are exposed to a variety of risk factors inherent in new product development. The Company's short operating history in its new endeavours makes prediction of future operating results difficult. Actual future results may differ significantly from those projected in any forward-looking statements. Key business risks for the Company are detailed in its most recent Annual Information Form which is available at www.sedar.com.

RISK MANAGEMENT

1. FINANCIAL RISK MANAGEMENT

In the normal course of business, the Company is exposed to a number of financial risks that can affect its operating performance. These risks are: credit risk, liquidity risk and market risk. The Company's overall risk management program and prudent business practices seek to minimize any potential adverse affects on the Company's financial performance.

a. Credit Risk

Credit risk is the risk of a financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligation. Financial instruments that potentially expose the Company to significant credit risk consist of cash and trade and other receivables.

i. Cash: The Company places its cash with Canadian Schedule I banks.

ii. Trade and other receivables: The Company sells its products to distribution partners in major markets. The credit risk associated with the accounts receivable pursuant to these agreements is evaluated during initial negotiations and on an ongoing basis. There have been no events of default under these agreements. As at March 31, 2016 and 2015, no material accounts receivable balances were considered impaired or past due.

b. Liquidity Risk

Liquidity risk is the risk that the Company will encounter difficulty in meeting obligations associated with its financial liabilities as they become due. The Company is exposed to liquidity risk, as it continues to have net cash outflows to support its operations. The Company's objective for liquidity risk management is to maintain sufficient liquid financial resources to meet commitments and obligations in the most cost effective manner possible.

The Company achieves this by maintaining sufficient cash and managing working capital. The Company monitors its financial resources on a weekly basis and updates its expected use of cash resources on the latest available data. All of the Company's financial liabilities are classified as current liabilities. Trade and other payables were $2,828 as at March 31, 2016 with all of them having expected settlement dates within one year. There are uncertainties related to the timing and use of the Company's cash resources.

c. Market Risk

i. Currency risk: The majority of the Company's revenue is denominated in U.S. dollars and Euros. At March 31, 2016, cash included US$(39). Trade and other receivables included a total of US$494 and ú88. Trade and other payables included a total of US$1,234, ú1 and ¥8,250. There is no active hedging program currently in place due to the relatively short time frame for settlement of these balances. A 10% change in the U.S. dollar/Canadian dollar,

Euro/Canadian dollar or Japanese yen/Canadian dollar exchange rates on the March 31, 2016 amounts would have an impact on losses by $98.

ii. Interest rate risk: The Company has no material exposure to fluctuations in interest rates.

2. CAPITAL RISK MANAGEMENT

The Company's primary objective, when managing capital, is to maintain appropriate levels of cash for working capital and operating purposes, as well as funding commercialization of its core products. Capital consists of share capital, contributed surplus, other equity reserves, and deficit.

CRITICAL ACCOUNTING ESTIMATES

The Condensed Interim Consolidated Financial Statements of Spectral are prepared in accordance with IFRS as set out in the CPA Canada Handbook. The Company has identified the accounting policies and estimates that are critical to the understanding of the Companyôs operation and financial results in the Condensed Interim Consolidated Financial Statements. Certain polices are selected by management and approved by the Finance and Audit Committee of the Board of Directors. These policies are set out in Note 3 of the Annual Consolidated Financial Statements for the years ended December 31, 2015 and 2014. Certain policies are more significant than others and are, therefore, considered critical accounting estimates. Accounting policies are considered to be critical if they rely on a substantial amount of judgment in their application or if they result from a choice between accounting alternatives and that choice has a material impact on the reported results or financial position.

Management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the Condensed Interim Consolidated Financial Statements and the reported amounts of revenue and expenses during the reporting period. These policies are set out in Note 3 iv. to the Annual Consolidated Financial Statements for the years ended December 31, 2015 and 2014. The most significant estimates are related to the valuation assumptions related to share-based compensation, accrual estimates made for clinical trial expenses and recoverability of deferred income tax assets. Actual results could differ from those estimates.

CONTINGENCIES AND COMMITMENTS

i. The Company has committed to expenditures for its EUPHRATES trial, which are disclosed in Note 8 of the condensed interim consolidated financial statements for the three months ended March 31, 2016 and 2015. In addition, the Company is committed to certain future lease payment primarily in connection with the leased premises.

ii. Directors and officers are indemnified by the Company for various items including, but not limited to, costs to settle lawsuits or actions due to their association with the Company, subject to certain restrictions. The Company has purchased directorsôand officersôliability insurance to mitigate the costs of any potential future lawsuits or actions. The term of the indemnification covers the period during which the indemnified party served as a director or officer of the Company.

iii. In the normal course of business, the Company has entered into agreements that include indemnities in favour of third parties, such a purchase and sale agreements, confidentiality agreements, engagement letters with advisors and consultants, leasing contracts and license agreements. These indemnification arrangements may sometimes require such third parties to compensate counterparties for losses as a result of breaches in representations, covenants and warranties provided by the Company or as a result of litigation or other third party claims or statutory sanctions that may be suffered by the counterparties as a consequence of the relevant transaction. In some instances, the terms of these indemnities are not explicitly defined. No accruals have been required to be made as at March 31, 2016 with respect to these agreements.

DISCLOSURE CONTROLS AND INTERNAL CONTROLS

Management's responsibility for financial reporting

Disclosure controls and procedures and internal controls over financial reporting

As at March 31, 2016, management has disclosure controls and procedures ("DCP") that provide reasonable assurance that information required to be disclosed by the Company in its filings under Canadian securities legislation is recorded, processed, summarized and reported in a timely manner. The system of DCP includes, among other things, the Company's Corporate Disclosure and Whistleblower policies and Code of Conduct, the review and approval procedures of the Disclosure Committee and continuous review and monitoring procedures by senior management.

As at March 31, 2016, management has designed internal controls over financial reporting ("ICFR") within the Company in order to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with IFRS. These controls were designed based on the framework established by Internal Control - Integrated Framework: 2013 issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Due to its inherent limitations, ICFR may not prevent or detect misstatements. In addition, the design of any system of control is based upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all future events, no matter how remote, or that the degree of compliance with the policies or procedures may not deteriorate. Accordingly, even effective ICFR can only provide reasonable, not absolute, assurance of achieving the control objectives for financial reporting.

Changes in internal controls over financial reporting

There have been no changes to the Company's internal controls over financial reporting during the three months ended March 31, 2016 that have materially affected, or are reasonably likely to materially affect, its internal controls over financial reporting.

An evaluation of the design and effectiveness of the Company's DC&P and ICFR has been conducted by management, under the supervision of the Chief Executive Officer (CEO) and Chief Financial Officer (CFO). Based on this evaluation, the CEO and CFO have concluded that, as of March 31, 2016, the Company's disclosure controls and procedures and internal control over financial reporting, as defined by National Instrument 52-109 – Certification of Disclosure in Issuers' Annual and Interim Filings, are operating effectively.