Winning the Battle Against Sepsis

FIRST QUARTER REPORT 2012

SPECTRAL INC
Diagnostics

First Quarter Letter to Shareholders

Dear Shareholders,

We continued to advance our U.S. Phase III EUPHRATES trial in the first quarter, while simultaneously executing on strategic capital market initiatives that will support the Company's long-term goals.

In January, we announced that Spectral's common shares began trading on OTCQX International, the highest tier of the OTC market in the United States, under the symbol "DIAGF". On a long-term basis, we expect to benefit from trading on OTCQX by gaining greater exposure and liquidity in the United States, which represents the major market for our theranostic treatment, and where most of our Phase III EUPHRATES trial sites are located.

From a clinical perspective, we continued enrolling patients into our Phase III trial. Directed by the Company's Endotoxin Activity Assay (EAA™), which is the only FDA-cleared diagnostic for the risk of developing sepsis, Spectral's EUPHRATES trial is the world's first theranostics trial in the area of sepsis. The trial is currently targeted to enroll 306 evaluable patients at 30 U.S. and Canadian sites.

There continues to be a significant unmet medical need in the area of severe sepsis and septic shock. We remain very excited about our future because our EUPHRATES trial is the most advanced clinical trial in the area of severe sepsis. As we accelerate the enrollment of patients in our Phase III sepsis trial, we are increasing our lead to potentially introduce a new sepsis product to the market.

I would like to thank our shareholders for your continuing support and I look forward to updating you on the progress of the EUPHRATES trial.

Sincerely,

Dr. Paul Walker

President & CEO

May 15, 2012

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, 2012 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 discussion should be read in conjunction with the Condensed Interim Financial Statements of the Company, and the notes thereto, for the three months ended March 31, 2012 (the "Condensed Interim Financial Statements") and the Audited Annual Financial Statements of the Company, and the notes thereto for the years ended December 31, 2011 and 2010 (the "Annual Financial Statements"), as well as management's discussion and analysis for the year ended December 31, 2011.

FORWARD LOOKING STATEMENTS

Certain statements contained in this MD&A constitute forward-looking information within the meaning of securities laws. 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 to take advantage of business opportunities, the granting of necessary approvals by regulatory authorities, and 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.

DISCLOSURE CONTROLS AND INTERNAL CONTROLS

The Company's management maintains a system of disclosure controls and procedures to provide reasonable assurance that material information is made known, and has designed internal controls over financial reporting to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with International Financial Reporting Standards ("IFRS") and in accordance with International Accounting Standard ("IAS") 34 Interim Financial Reporting. There has been no change during the Company's most recent interim period in the internal controls over financial reporting.

The accounting policies applied in these financial statements are based on IFRS effective for the three months ended March 31, 2012, as issued and outstanding as of May 15, 2012, the date the Board of

Directors approved the statements. Any subsequent changes to IFRS that are given effect in the Company's Condensed Interim Financial Statements for the three months ended March 31, 2012 could result in restatement of these financial statements, including the transition adjustments recognized on the change-over to IFRS.

Dr. Paul M. Walker, Chief Executive Officer, and Mr. Anthony Businskas, Chief Financial Officer, in accordance with Multilateral Instrument NI 52-109, have also both certified that:

- They have reviewed the Condensed Interim Financial Statements and this MD&A ("the Filings");
- Based on their knowledge, these Filings do not contain any untrue fact or omit a material fact;
- The Filings present fairly the financial position, loss and comprehensive loss, and cash flows of the Company;
- They have designed such disclosure controls and procedures, or caused them to be designed under their supervision, to provide reasonable assurance that material information relating to the Company is made known to them by others within the Company, particularly during the period in which the annual filings are being prepared;
- They have designed such internal controls over financial reporting, or caused them to be designed under their supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS.

This document and the related 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 Diagnostics Inc. ("Spectral" or the "Company") is strategically focused on the development and commercialization of a treatment for severe sepsis utilizing its Endotoxin Activity Assay (EAA™) and the Toraymyxin therapeutic. If approved, this will be the first theranostics product, a 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 "severe sepsis". In 2003, the Company achieved U.S. Federal Drug Administration ("FDA"), Health Canada and European CE clearance of the Endotoxin Activity Assay ("EAA™") for the first recognized rapid test for the risk of developing sepsis in the Intensive Care Unit ("ICU"). In North America alone over 750,000 patients are diagnosed with the clinical syndrome of sepsis annually. Between 30% and 50% of patients with severe sepsis 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 helping to guide therapeutic interventions. Spectral's EAA™ endotoxin measurement is the only FDA cleared diagnostic for this indication currently on the market.

TORAYMYXIN

Toraymyxin is a therapeutic hemoperfusion device that removes endotoxin from the bloodstream. Toraymyxin has been used in more than 80,000 patients globally and has demonstrated in clinical trials that it safely and effectively removes endotoxin and reduces mortality in patients with severe sepsis.

Results of a randomized controlled trial (the EUPHAS trial) were recently published in the *Journal of the American Medical Association* (JAMA, 2009; Vol. 301 No. 23, 2445-2452). The results demonstrated that when Toraymyxin 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 Company's only clinical development program is focused on obtaining U.S. FDA approval for Toraymyxin.

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 Toraymyxin, a therapeutic device for the treatment of sepsis that removes endotoxin from the bloodstream. Under the terms of the agreement, Spectral is seeking U.S. FDA approval for Toraymyxin and intends to commercialize the product, together with its Endotoxin Activity Assay (EAA™), the only FDA cleared diagnostic for the measurement of endotoxin.

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

On March 2, 2010, the Company completed a private placement financing for aggregate gross proceeds of $19,500. Net proceeds from the financing, after related costs, were $17,608. These funds are being utilized primarily for the regulatory approval of Toraymyxin in the U.S. market.

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 Toraymyxin plus standard of care. The FDA has approved a total of 30 clinical sites in the U.S. and Canada. Eighteen sites are now operational and enrolling patients . All 30 currently approved sites should be operational by June 30, 2012. The trial, as currently configured, is expected to enroll 306 evaluable patients, with 28 day mortality being the primary end point. The first interim analysis is , at this time, expected to occur by the end of the first quarter of 2013.

In November, 2010, the Company signed a long-term, exclusive distribution agreement with Toray Industries, Inc. and Toray Medical Co., Ltd. of Japan (collectively "Toray") to market and sell Toraymyxin in Canada. Both the Toraymyxin product and Spectral's EAA™ diagnostic are already approved for sale by Health Canada. The Company is developing commercial plans for the Canadian market. The first step in the Canadian commercialization process will be the inclusion of Canadian sites in the EUPHRATES trial.

On September 9, 2011, the Company completed a plan of arrangement with Medwell Capital Corp. ("Medwell"), whereby Spectral issued 33,333,333 common shares in exchange for $10 million cash. In accordance with the plan of arrangement, Medwell distributed 54,282,834 Spectral common shares to its shareholders and retained a 13.40% residual ownership position in Spectral. These funds will be utilized primarily for the execution and expansion of the EUPHRATES trial.

In the fourth quarter of 2011, "Xigris", an Eli Lilly product, was withdrawn from the worldwide market, following results of a European clinical study which showed that the trial did not meet the primary endpoint of a statistically significant reduction in 28-day all cause mortality in patients with septic shock. In February, 2012, the first of two anticipated pivotal phase III sepsis studies for Tolactoferrin alfa ("Aggenix AG") was halted for safety reasons. While unfortunate for sepsis patients and clinicians, it is positive news for the Company as there remains a very large unmet medical need for an effective treatment for patients with severe sepsis and septic shock. The EUPHRATES trial is now the only active phase III study in the area of sepsis.

The Company's focus continues to be on the implementation of the EUPHRATES trial and obtaining regulatory approval in the United States for a treatment for severe sepsis and septic shock that combines Spectral's EAA™ diagnostic with a targeted therapy-Toraymyxin. This theranostics approach is the first in the area of sepsis.

At March 31, 2012, the Company had approximately $15,900 of cash, cash equivalents and a short-term investment to fund its clinical development activities and operations

Toraymyxin is marketed in Japan and Europe and has been used to treat more than 80,000 sepsis patients safely and effectively. Spectral's EAA™ can identify patients that will benefit from Toraymyxin and monitor the effects of the treatment. This combination of the EAA™ diagnostic and the Toraymyxin 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 250,000 patients who develop severe sepsis or septic shock in the U.S. each year. Over half of these patients have highly elevated levels of endotoxin. The U.S. market potential for this treatment is estimated at over $ 1 billion.

OPERATIONS

During the first three months of 2012, the Company's activities continued to focus 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

SELECTED FINANCIAL INFORMATION

REVENUE

Revenue for the three months ended March 31, 2012 was $676, compared to $622 for the same period in the preceding year.

Sales of the Company's EAA™ product and related instrumentation increased during the quarter to $185, from $45 in 2011. Certain distribution agreements that had expired have now been renegotiated and contributed to the increased sales.

Reagent sales decreased to $76, from $140 in 2011, but this is a matter of timing only. Reagent sales in 2012 are anticipated to remain consistent with prior year levels.

Royalty revenues of $415 related to the Company's Troponin I technology, were marginally lower than the $432 of royalty revenues for the first three months in 2011. Royalty revenues are expected to remain consistent with 2011 for the remainder of the year.

EXPENSES

Total expenses for the three months ended March 31, 2012 were $2,976, compared to $2,123 in the first quarter of 2011. The increase of $853 is attributable almost entirely to higher EUPHRATES trial costs (as disclosed in Note 9 of the Condensed Interim Financial Statements). Only a number of the initial 15 clinical trial sites were operational in the first quarter of 2011. A total of 30 clinical trial sites are expected be operational by June 30, 2012.

The Company continues to maintain a low cost operating structure and expects no material increase in non clinical operating costs in 2012.

Employee benefits in the first quarter of 2012 were consistent the same period in 2011.

EUPHRATES trial costs (Note 9) were $1,293 in the first three months of 2012, compared to $487 for the same period in 2011. The increased costs are primarily due to the initiation and set up of additional sites and the increased number of enrolled patients in the first 2012 quarter as compared to the same period in 2011.

The $375 of service fees was paid to Medwell. The Company signed a three year contract with Medwell, effective January 1, 2010, whereby Medwell provides consulting services and resources to Spectral, as required, assisting the Company in the regulatory and commercialization process for Toraymyxin and certain corporate initiatives. Medwell is paid $1,500 per annum ($375 per quarter), plus applicable expenses, for the remaining term of the contract, which expires on the later of December 31, 2013 or the completion of the EUPHRATES trial.

SHAREHOLDERS AND PLAN OF ARRANGEMENT (2011)

On March 28, 2011 the Company, and Medwell, announced a non-brokered agreement whereby Medwell and a consortium of buyers purchased, in private transactions, 12,449,501 common shares and 962,500 common share purchase warrants of Spectral from GrowthWorks Canadian Fund Ltd., representing 15.60% of Spectral's issued and outstanding shares. After this transaction, Medwell owned approximately 45.0% of the outstanding common shares of the Company.

On September 9, 2011, the Company and Medwell concluded a plan of arrangement, whereby Medwell acquired a further 33,333,333 Spectral common shares for $10 million cash at a subscription price of $0.30 per share. The Company received, after all transaction costs, net proceeds of $9,563, which will be used primarily to advance the Toraymyxin therapeutic through to the end of the Phase III EUPHRATES trial and data release. As part of this transaction, Medwell distributed 54,282,834 Spectral shares directly to its shareholders. Medwell now holds 15,200,000 Spectral shares, representing approximately 13.40% of the Spectral's issued and outstanding capital (calculated on a non diluted basis). Medwell also holds 15,200,000 Spectral warrants, which are exercisable at $0.60 each and expire on March 2, 2014.

NORMAL COURSE ISSUER BID

On November 11, 2011 the Company announced that the Toronto Stock Exchange (the TSX") approved its notice of intention to make a normal course issuer bid for its outstanding common shares (the "Shares"). Pursuant to the notice, the Company is entitled to purchase up to 2,277,667 Shares, representing 2% of its issued and outstanding shares during the twelve month period commencing November 15, 2011 and ending November 14, 2012. There are currently 113,883,394 Shares issued and outstanding. The Company may purchase up to 14,535 Shares on the TSX during any trading day. All Shares purchased under the issuer bid will be cancelled. To date, the Company has not purchased any of its Shares under this normal course issuer bid.

OTCQX INTERNATIONAL

On January 11, 2012 the Company announced that its common shares have commenced trading on OTCQX International, the highest tier of the OTC market in the U.S. Shares are traded under the symbol "DIAGF". The Company's common shares continue to trade on the TSX under the symbol "SDI".

BALANCE SHEET, FINANCIAL CONDITION AND LIQUIDITY

Cash and cash equivalents of $10,877 as at March 31, 2012 (December 31, 2011 - $13,470) decreased by $2,593. This decrease is attributable to the following cash utilization:

Cash operating losses	(2,105)
Redemption and reinvestment of short-term investments	(16)
Working capital	(400)
Property, plant and equipment additions	(72)
	$(2,593)

The Company also held a short term investment of $5,102 as at March 31, 2012 (December 31, 2011 - $5,086).

OUTLOOK

The Company will continue to generate sales in 2012 pursuant to its existing commercial arrangements for EAA™ and its proprietary biological reagents. The strategic focus for the next several years will be on the successful completion of the EUPHRATES trial. Eighteen clinical sites are currently screening patients and enrolment is progressing at a steady pace. The Company has targeted 30 clinical trial sites to be initiated by the end of the second quarter of 2012. The first analysis of interim results is anticipated by the end of the first quarter of 2013, subject to achieving required patient enrolment rates. As at March 31, 2012 the Company had $15,900 available to fund its clinical development activities and 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.

CRITICAL ACCOUNTING POLICIES

The Condensed Interim Financial Statements of Spectral for the three months ended March 31, 2012 are prepared in accordance with IAS 34, "Interim Financial Reporting". The Condensed Interim Financial Statements should be read in conjunction with the Annual Financial Statements for the year ended December 31, 2011, which have been prepared in accordance with IFRS. The Company has identified the accounting policies and estimates that are critical to the understanding of the Company's operation and financial results in the Condensed Interim Financial Statements. Certain polices are selected by management and approved by the Finance and Audit Committee of the Board of Directors. These accounting policies are set out in Note 3 of the Annual Financial Statements for the years ended December 31, 2011 and 2010. Certain policies are more significant than others and are, therefore, considered critical accounting policies. 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.

In addition to accounting policies, 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 Financial Statements and the reported amounts of revenue and expenses during the reporting period. The most significant estimates are related to the recoverability of purchased technology and licences, property, plant and equipment and valuation assumptions related to share-based compensation. Actual results could differ from those estimates. The Condensed Interim Financial Statements of the Company have been prepared using similar estimation methods for the critical accounting estimates as were used for the Annual Financial statements and they conform to the requirement of IAS 34 "Interim Financial Reporting".

RISK MANAGEMENT

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: market risk (including currency risk, fair value interest rate risk, cash flow interest rate risk and price risk), credit risk and liquidity 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.

Market Risk

i. Currency risk: The majority of the Company's revenue is denominated in U.S. dollars and Euros. At March 31, 2012, cash included US$51. Trade and other receivables included a total of US$566 and €70. Trade and other liabilities included a total of US$893 and €3. 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./CDN or EURO/CDN exchange rate on the March 31, 2012 amounts would have a $24 impact on net income.

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

a. Credit Risk

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

ii. Cash equivalent: Cash equivalent consist of a premium money market investment account placed with a Canadian Schedule I bank. The premium money market investment account can be converted to cash on demand.

iii. Short-term investment: Short-term investment includes an interest bearing security with an original maturity of greater than three months and remaining maturity of less than one year. The short-term investment is classified as held-for-trading and is accounted for at fair value.

iv. Accounts receivable: 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, 2012 and 2011, no material accounts receivable balances were considered impaired or past due.

b. Liquidity Risk

There has been no material change since the Company's year end.

CAPITAL RISK MANAGEMENT

The Company's primary objective, when managing capital, is to maintain appropriate levels of cash and cash equivalents for working capital and operating purposes, as well as funding commercialization of its core products. Capital includes shareholders' equity.

Spectral Diagnostics Inc.

Condensed Interim Financial Statements

March 31, 2012
(Unaudited)

These unaudited condensed interim financial statements have been prepared by management of Spectral Diagnostics Inc. and have not been reviewed by the Company's auditor.

Spectral Diagnostics Inc.

Condensed Interim Statement of Financial Position

(in thousands of Canadian dollars)

	Note	March 31 2012 $	December 31 2011 $
		Unaudited	Audited
Assets			
Current assets			
Cash and cash equivalents		10,877	13,470
Short-term investment		5,102	5,086
Trade and other receivables		781	515
Inventories		259	295
Prepayments	9	568	407
		17,587	19,773
Non-current assets			
Property, plant and equipment		446	419
Intangible assets		453	459
		899	878
Total assets		18,486	20,651
Liabilities			
Current liabilities			
Trade and other payables		1,627	1,610
Deferred revenue		76	102
Total liabilities		1,703	1,712
Equity			
Share capital		27,101	27,101
Contributed surplus		3,864	3,864
Other equity reserves	8	8,174	8,082
Deficit		(22,356)	(20,108)
Total equity		16,783	18,939
Total liabilities and equity		18,486	20,651

The accompanying notes are an integral part of these unaudited condensed interim financial statements.

Spectral Diagnostics Inc.

Condensed Interim Statement of Loss and Comprehensive Loss
For the three months ended March 31, 2012 and 2011
(Unaudited)

(in thousands of Canadian dollars, except for share and per share data)

	Note	2012	2011
		$	$
Revenue		676	622
Other income		36	27
Expenses			
Changes in inventories of finished goods and work- in-process		99	44
Raw materials and consumables used		99	61
Employee benefits	8, 10	765	740
Consulting and professional fees		1,190	460
Management services	11	375	375
Regulatory and investor relations		123	69
Travel and entertainment		146	110
Depreciation and amortization		51	165
Foreign exchange loss		11	7
Other expenses		117	92
		2,976	2,123
Operating loss		(2,264)	(1,474)
Finance income		16	16
Loss and comprehensive loss for the period		(2,248)	(1,458)
Basic and diluted loss per common share		(0.02)	(0.02)
Weighted average number of common shares outstanding		113,883,394	80,550,061

The accompanying notes are an integral part of these unaudited condensed interim financial statements.

Spectral Diagnostics Inc.

Condensed Interim Statement of Changes in Equity
(Unaudited)

(in thousands of Canadian dollars, except number of shares)

	Note	Issued capital Number	$	Contributed surplus $	Share-based compensation $	Warrants $	Deficit $	Total equity $
Balance, January 1, 2011		80,550,061	17,538	3,696	2,722	5,311	(13,395)	15,872
Loss and comprehensive loss for the period		-	-	-	-	-	(1,458)	(1,458)
Share-based compensation	8, 10	-	-	-	126	-	-	126
Balance, March 31, 2011		80,550,061	17,538	3,696	2,848	5,311	(14,853)	14,540
Balance, January 1, 2012		113,883,394	27,101	3,864	2,939	5,143	(20,108)	18,939
Loss and comprehensive loss for the period		-	-	-	-	-	(2,248)	(2,248)
Share-based compensation	8, 10	-	-	-	92	-	-	92
Balance, March 31, 2012		113,883,394	27,101	3,864	3,031	5,143	(22,356)	16,783

The accompanying notes are an integral part of these unaudited condensed interim financial statements.

Spectral Diagnostics Inc.

Condensed Interim Statement of Cash Flows
For the three months ended March 31, 2012 and 2011
(Unaudited)

(in thousands of Canadian dollars)

	Note	2012	2011
		$	$
Cash flow provided by (used in)			
Operating activities			
Loss and comprehensive loss for the period		(2,248)	(1,458)
Adjustments for:			
Depreciation on property, plant, and equipment		45	33
Amortization of intangible assets		6	124
Share-based compensation	8, 10	92	126
Changes in items of working capital :			
Trade and other receivables		(266)	(47)
Inventories		36	33
Prepayments	9	(161)	(105)
Trade and other payables		17	(440)
Deferred revenue		(26)	(25)
Net cash used in operating activities		(2,505)	(1,759)
Investing activities			
Property, plant and equipment expenditures		(72)	(5)
Redemption of short-term investment		5,086	-
Purchase of short-term investment		(5,102)	-
Net cash used in investing activities		(88)	(5)
Decrease in cash and cash equivalents		(2,593)	(1,764)
Cash and cash equivalents, beginning of period		13,470	10,311
Cash and cash equivalents, end of period		10,877	8,547

The accompanying notes are an integral part of these unaudited condensed interim financial statements.

(in thousands of Canadian dollars, except for share and per share data)

1. Nature of operations

Spectral Diagnostics Inc. (Spectral or the Company) was incorporated on July 29, 1991 in Ontario, Canada. The address of the registered office is 135-2 The West Mall, Toronto, Ontario.

Spectral is a limited public company, which is listed on the Toronto Stock Exchange (the "TSX") under the symbol "SDI". Effective January 11, 2012, Spectral's shares also began trading on the OTCQX exchange in the U.S. under the symbol "DIAGF".

The Company is strategically focused on the development and commercialization of a treatment for severe sepsis utilizing its Endotoxin Activity Assay (EAA™) diagnostic and the Toraymyxin therapeutic, for which it is currently seeking U.S. Food & Drug Administration ("FDA") approval once the EUPHRATES trial (Note 7) is complete.

These condensed interim financial statements were approved for issue by the Board of Directors on May 15, 2012. These condensed interim financial statements have not been audited.

2. Basis of preparation

These condensed interim financial statements for the three months ended March 31, 2012 have been prepared in accordance with IFRS as issued by the IASB applicable to the preparation of interim financial statements, including IAS 34, "Interim Financial Reporting". The condensed interim financial statements should be read in conjunction with the annual financial statements for the year ended December 31, 2011, which have been prepared in accordance with IFRS.

3. Accounting policies

The accounting policies adopted are consistent with those of the previous financial year.

4. Estimates

The preparation of interim financial statements requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets and liabilities, income and expense. Actual results could differ from those estimates.

In preparing these condensed interim financial statements, the significant judgments made by management in applying the accounting policies and the key sources of estimation and uncertainty were the same as those that applied to the financial statements for the year ended December 31, 2011.

(in thousands of Canadian dollars, except for share and per share data)

5. Accounting standards issued but not yet applied

There are no new IFRSs or IFRICs that are effective for the first time for this interim period that would be expected to have a material impact on the Company.

6. Financial risk management

a. Financial risk

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: market risk (including currency risk, fair value interest rate risk, cash flow interest rate risk and price risk), credit risk and liquidity risk.

The condensed interim financial statements do not include all financial risk management information and disclosures required in the annual financial statements. They should be read in conjunction with the annual financial statements as at December 31, 2011. There have been no changes in the risk management since year end or in any risk management policies.

The Company's management continues to use prudent business practices to minimize any potential adverse effects on the Company's financial performance.

b. Liquidity risk

There has been no material change since the Company's year end.

7. Commitments

The Company has committed to expenditures of approximately $5,000 in the next year and another $10,000 thereafter for its U.S. pivotal trial.

8. Share-based compensation

The Company granted the following share options to directors, officers, employees and others at the discretion of the Board of Directors.

	March 31 2012			March 31 2011	
Date	Number of share options	Exercise price	Date	Number of share options	Exercise price
January 17, 2012	860,000	$0.285	March 15, 2011	1,255,000	$0.315

The exercise prices of the share options are equal to the closing market price of the Company's shares on the Toronto Stock Exchange on the immediately preceding day of the

(in thousands of Canadian dollars, except for share and per share data)

grant of the option. Share options issued to the Company's directors were vested at the time of the grant. Share options issued to the Company's officers in 2012 vested at 25% of the grant amount at the time of the grant. The balance of the employee share options vest equally in each successive quarter and will be fully vested by January 16, 2017. Share options issued to the Company's officers and employees in 2011 vested at 25% of the grant amount at the time of the grant. The balance of these share options vest equally in each successive quarter and will be fully vested by March 14, 2014. The contractual life of each share option is five years. There is no cash settlement of the share options.

The volatility measured at the standard deviation of continuously compounded share returns is based on statistical analysis of weekly share prices over the last five years.

Share options granted were valued using the Black-Scholes option pricing model, with the following assumptions:

	March 31 2012	March 31 2011
Risk-free interest rate	1.26%	2.54%
Expected life	5 years	5 years
Annualized volatility	89.74%	95.25%
Dividend rate	0%	0%
Grant date fair value	$0.275	$0.32

9. The EUPHRATES trial

The EUPHRATES (Evaluating the Use of Polymyxin B Hemoperfusion in a Randomized controlled trial of Adults Treated for Endotoxemia and Septic shock) trial is a randomized, double-blind control trial of standard of care versus standard of care and Toraymyxin, directed by Spectral's EAA™, an FDA cleared assay for use in sepsis.

The Company has incurred the following costs associated with this clinical trial:

	For the three months ended	
	March 31 2012	March 31 2011
	$	$
Program management	782	278
Program oversight	115	16
Clinical site costs	236	77
Diagnostic supply and training	66	39
Employee benefits	94	77
Total EUPHRATES	**1,293**	**487**

(in thousands of Canadian dollars, except for share and per share data)

The trial costs have been included in the statement of loss and comprehensive loss where applicable.

A prepayment of $178 was made for the trial's investigator meeting, scheduled for April, 2012. The amount has been included in prepayments.

10. Employee benefits

Key management includes the Company's directors and officers. Compensation awarded to key management included:

	For the three months ended March 31 2012		For the three months ended March 31 2011	
		$		$
	All employees	Key management	All employees	Key management
Salaries	512	289	459	267
Bonuses	-	-	-	-
Short term employee benefits	62	29	62	35
Directors fees	55	55	49	49
Post-employment benefits	42	42	44	44
Share- based compensation	92	76	126	114
Other	2	-	-	-
	765	**491**	**740**	**509**

11. Related party transactions

a. The Company has entered into a services agreement with Medwell Capital Corp. ("Medwell"), which entity owns approximately 13.40% (2011: 45.00%) of the outstanding common shares of Spectral (calculated on a non-diluted basis). In addition, Medwell holds warrants that entitle it to acquire a further 15,200,000 Shares at a price of $0.60 per Share until March 2, 2014.

The agreement, effective January 1, 2010, is for the provision of various consulting services to assist the Company in its commercialization activities. Under the terms of the agreement, Medwell is paid $1,500 per annum plus applicable expenses, commencing on January 1, 2011, over the remaining terms of the contract, which expires on the later of December 31, 2013 or the completion of the EUPHRATES trial.

As at March 31, 2012, the amount owing to Medwell was $284 (2011: $239) and was paid in the subsequent period.

(in thousands of Canadian dollars, except for share and per share data)

b. Compensation of key management is disclosed in Note 10.

c. As of February 29, 2012, Birch Hill Equity Partners Management Inc. ("Birch Hill") became the owner, directly and indirectly, of 12,029,153 Shares, representing approximately 10.60% of the outstanding common shares of Spectral (calculated on a non-diluted basis). There are no transactions with Birch Hill.

There are no other related party transactions.

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