LEXAGENE HOLDINGS INC.
Management's Discussion and Analysis
For the Three Months Ended
May 31, 2018

General

This management discussion and analysis of financial position and results of operations ("MD&A) is prepared as at July 30, 2018 and should be read in conjunction with the unaudited interim consolidated financial statements for the three months ended May 31, 2018 and related notes of LexaGene Holdings Inc. ("LexaGene" or the "Company"). These interim consolidated financial statements, including comparatives, have been prepared in accordance with the International Financial Reporting Standards ("IFRS") issued by the International Accounting Standards Board ("IASB") and interpretations of the IFRS Interpretations Committee ("IFRIC").

Management is responsible for the preparation and integrity of the consolidated financial statements, including the maintenance of appropriate information systems, procedures and internal controls. Management is also responsible for ensuring that information disclosed externally, including the condensed interim consolidated financial statements and Management Discussion and Analysis ("MD&A"), is complete and reliable.

All dollar amounts included therein and in the following MD&A are expressed in United States dollars except where noted. This discussion contains forward-looking statements that involve risks and uncertainties. Such information, although considered to be reasonable by the Company's management at the time of preparation, may prove to be inaccurate and actual results may differ materially from those anticipated in the statements made. Additional information on the Company is available for viewing on SEDAR at www.sedar.com.

Description of Business

The principal business of the Company is to research, develop and commercialize automated pathogen detection devices in the life sciences and diagnostics industries. The Company trades on the TSX Venture Exchange (the "Exchange") under the symbol LXG and on the OTCQB Venture Market in the United States under the symbol LXXGF. Up to May 2015 the Company was a natural resource company engaged in the acquisition, exploration, and evaluation of mineral properties.

Summary of Operations, Events and Future Plans

In March 2017, the Company closed a $1.491M non-brokered private placement.

In December 2017, the Company closed a $3.911M bought deal with an overallotment of $318K conducted by a syndicate of underwriters led by Canaccord Genuity Corp. and including PI Financial Corp. and Echelon Wealth Partners Inc.

The Company used these monies to lease 17,600 square foot of office and R&D space in Beverly, Massachusetts. The Company renovated the R&D space to build a level 2 biosafety laboratory held under negative pressure, which was completed in April 2018. In addition, it built a positive-pressure clean-room for manufacturing reagents for the LX6™ genetic analyzer. These engineering controls are intended to help keep the Company's staff safe and maximize the performance of the Company's technology.

The Company also recently hired 11 Beverly-based employees and 2 Vancouver-based employees, bringing the total headcount of the Company to 15. Some of the Beverly-based strategic hires include the following:

Jeffrey Mitchell MBA was hired to replace Zula Kropivnitski as the Company's Chief Financial Officer. Mr. Mitchell has over two decades of financial and SEC experience. Before joining LexaGene, he worked at Palomar Medical Technologies, which was publicly traded on the NASDAQ. As Palomar's Controller and Director of Finance, he oversaw the company's financial reporting, audits, and financial planning. In 2013, Mr. Mitchell helped orchestrate the sale of Palomar to Cynosure for $294 million. Mr. Mitchell has also served in numerous financial and strategic advisory roles for other medical device, imaging, and diagnostic companies.

Greg Dale was hired as VP of Product Development and Manufacturing. Mr. Dale has developed and manufactured more than a dozen products to date and is listed as an inventor on 28 issued U.S. patents on PCR and microfluidics devices. His medical device and *in-vitro* diagnostics product development experience includes work with instruments, microfluidics, sensors, disposables, reagents, wearables and implantables. Mr. Dale most recently served as Vice President, Product Development, Manufacturing and Quality at Emulate LLC. Prior to Emulate, Mr. Dale served as General Manager and Senior Director of NGS (Next-Generation Sequencing) Engineering at Qiagen, where his team developed the Qiagen GeneReader NGS system using agile development methods. Mr. Dale has a degree in mechanical engineering from Virginia Tech.

Dr. Nathan Walsh was hired as Director of Applications – Bioinformatics. Dr. Walsh has over 20 years' experience interfacing between biology and bioinformatics. His experience with DNA sequence projects includes primer design, next-generation sequencing (NGS), cancer detection, microarrays, and pathway identification. Dr. Walsh most recently served as Head of Informatics at Bio-Rad's Digital Biology Center of Cambridge building a rapid-result next-generation sequencer; prior to that, he served as Senior Director of Informatics and IT to create drug hits from DNA encoded libraries. Dr. Walsh was a post-doctoral fellow at Harvard Medical School and Brigham and Women's Hospital Department of Genetics. He has a biochemistry degree from Brown University and a Ph.D. in biology from MIT.

Dr. Manoj Nair was hired as Senior Staff Scientist. Dr. Nair has over 7 years of experience developing and leading teams in the development of molecular diagnostic and pathogen typing assays in compliance with FDA IVD regulations for clinical diagnostics and AOAC guidelines for food safety applications. Before joining LexaGene, Dr. Nair served as Staff Scientist at Beckman Coulter Molecular Diagnostics and Senior Scientist at Roche Molecular Systems, where he developed various qualitative and quantitative diagnostic assays for 510(k) clearance, PMA and CLIA waiver. Dr. Nair is also a trained veterinarian and specialized in the diagnosis and treatment

of animal diseases in his early career. Dr. Nair conducted his postdoctoral studies at the University of Pennsylvania and Albany Medical College, concentrating on host-pathogen interactions in infections caused by bio-threat agents. His doctoral training at the University of Connecticut focused on the molecular pathogenesis of *Cronobacter sakazakii* and its detection in contaminated infant formula.

In 2017, the Company exhibited at multiple conferences, including the International Association for Food Protection conference, the Southwest Veterinary Symposium, and the Association for Molecular Pathology conference.

In 2018, the Company exhibited at the Association of Molecular Pathology conference, the Clinical Virology Symposium, the Association for Public Health Laboratories conference, and the American College of Veterinary Internal Medicine conference.

The Company has performed some market assessment through surveys to determine the demand for the technology under development. One survey was carried out using the Food Safety Magazine's subscriber list, where 50 food safety officers responded – confirming a need for molecular testing in the food industry. The food safety market is expected to reach $13.6 billion by 2018.

Another survey was performed through Ethos Veterinary Health Group. In this survey, the Company recognized the need for faster diagnostics in the veterinary market. LexaGene also engaged Ethos to determine a stack-rank list of pathogens and drug resistant targets that are of most interest to veterinarians. The Company is using this information to guide product development decisions. The market size for veterinary diagnostics is expected to reach $4.2 billion by 2021.

The Company intends on pursuing human clinical diagnostics – otherwise known as the IVD market after it has first gained success in food safety and veterinary diagnostics. In order to sell into the IVD market, LexaGene will be required to seek 510k clearance from the FDA. The size of the infectious disease testing market is expected to reach $19.3 billion by 2022.

In May 2018, the Company's alpha prototype started generating data, detecting *E. coli* and staphylococcus. The Company is working towards optimizing the performance of the prototype, which includes developing more assays to detect additional pathogens, improving its sample preparation cartridge and the associated chemistry to make pathogen capture, lysis, and purification as efficient as possible, adjusting microfluidic protocols, improving master-mix composition, and adjusting the instrument's thermal control for more efficient target amplification. By the time the company starts beta testing, the instrument is expected to be able to screen for up to 22 pathogens at once and will deliver results in about one hour.

The Company has engaged Ethos Veterinary Health Group and Texas A&M Veterinary Medical Diagnostics Laboratory to provide urine samples for testing on the alpha prototype. The Company will use these samples to generate a data set that will be presented at a future conference.

While the Company works on optimizing the alpha's performance the Company is also starting to design the beta prototype. This process is expected to take several months, as each component of the alpha prototype is evaluated to determine if performance, reliability, and cost can be improved.

The Company entered into collaboration with Dr. Hanlee Ji of Stanford University School of Medicine to evaluate combining Dr. Ji's chemistry for next generation sequencing sample preparation with LexaGene's disposable cartridge.

In June 2018, the Board of Directors welcomed Joseph Caruso to the management team. Mr. Caruso is a Medical Device Veteran with over 30 years of industry experience. Mr. Caruso was one of the founding members of the management team of Palomar Medical Technologies, Inc. (NASDAQ:PMTI) (now part of Hologic, Inc.: NASDAQ:HOLX) taking the company public in 1992. As CEO and Chairman of the Board of Directors, Mr. Caruso was instrumental in growing the company from a start up until its sale in 2013 for $294M. Under Mr. Caruso's leadership, Palomar, with offices around the world, developed the first high powered laser hair removal system and helped create the multi-billion dollar cosmetic medical device industry. Mr. Caruso negotiated dozens of acquisitions, license agreements and joint development agreements in his career including with companies such as Johnson and Johnson, Inc. (NYSE:JNJ) and Gillette (now part of Proctor and Gamble Company, Inc.: NYSE:PG).

Selected Yearly Information

	February 28, 2018	February 28, 2017
Total assets	$ 3,724,167	$ 1,052,274
Working capital	$ 2,707,371	$ 818,138
Loss for the year	$ 4,005,452	$ 4,483,215
Loss per share	$ 0.08	$ 0.17

Selected Quarterly Information

The following selected financial data has been prepared in accordance with IFRS and should be read in conjunction with the Company's financial statements. All dollar amounts are in United States dollars.

Quarter ended	Net income (loss) for the period	Net income (loss) per share (basic & diluted)	Total assets
May 31, 2018	$ (1,869,218)	$ (0.03)	$ 2,339,003
February 28, 2018	$ (1,327,174)	$ (0.03)	$ 3,724,167
November 30, 2017	$ (1,319,312)	$ (0.01)	$ 969,067
August 31, 2017	$ (741,064)	$ (0.01)	$ 1,514,817
May 31, 2017	$ (617,902)	$ (0.01)	$ 1,800,307
February 28, 2017	$ (384,390)	$ (0.01)	$ 1,052,274
November 30, 2016	$ (3,794,738)	$ (0.12)	$ 1,397,947
August 31, 2016	$ (200,818)	$ (0.01)	$ 62,452

Results of Operations

Three months ended May 31, 2018

During the three months ended May 31, 2018, the Company recorded net loss of $1,869,217 compared to a net loss of $617,902 for the three months ended May 31, 2017. The significant change during the three months ended May 31, 2018 compared to the three months ended May 31, 2017 is due to the Company advancing its operations, which include research and development of pathogen detection devices in the life sciences industry.

Advertising and promotion costs

During the three months ended May 31, 2018 the Company spent $149,091 on advertising and promotion compared to $82,649 during the three months ended May 31, 2017. This increase is due to the Company's efforts on increasing Company awareness and promoting its technologies.

Office and miscellaneous costs

Office and miscellaneous costs have increased to $166,447 for the three months ended May 31, 2018 compare to $6,375 for the same period in 2017 due to the Company opening its new office and lab space in April, 2018.

Research and development costs

Research and development expense during the three months ended May 31, 2018 increased to $380,275 compared to $259,065 for the same period in 2017. This increase in research and development costs is primarily from additional spending related to the alpha product design and advancing the products capabilities.

Share based compensation

For the three months ended May 31, 2018, the Company recorded share based compensation of $513,678 compared to $80,059 for the same three month period in 2017. This increase is primarily related to an increase in options and restricted share units granted to new employees during 2018.

In May, the Company granted stock options to purchase a total of 75,000 common shares at a price of CAD$1.27 per common share to an employee. No stock options were exercised.

In May 2018, the Company granted 295,000 restricted share units to employees with the trigger dates for the restricted share units of 10% after six months from the grant date, and 15% every six months thereafter, expiring on May 16, 2021.

Travel expenses

Travel expense increased to $152,687 during the quarter ended May 31, 2018 as compared to $35,276 in the same period in 2017. This increase is due to promoting the Company in both the

United States and Canada as well as attending multiple conferences in the United States, Canada and Europe.

Wages and salaries

For the three months ended May 31, 2018, wages and salaries expense increased to $490,171 as compared to $90,074 for the same period in 2017. This increase is directly attributed to the company increasing its headcount at its new office and lab space.

These increases were partially offset by a decrease in consulting fees by $24,497 as the Company did not require the same level of consulting services due to the hiring of employees.

Financial Condition, Liquidity and Capital Resource

The Company's working capital as of May 31, 2018 was $1,393,433 including cash of $1,350,508 compared to a working capital of $2,707,371 including cash of $2,648,354 as of February 28, 2018.

The Company's business currently does not generate positive cash flows from sales. The Company is reliant on equity financing to provide the necessary cash to continue research and development of the instrument described in the Summary of Operations, events and Future Plans section of this management discussion and analysis. There can be no assurance that equity financings will be available to the Company in the future with terms that are satisfactory to the Company.

The Company has not entered into any off-balance sheet arrangements.

Commitment

The Company has an operating lease agreement for their office and laboratory premises. Commitments in respect of these lease agreements are as follows:

	2018	2017
Not more than one year	$ 380,568	$ -
Later than one year and not later than five years	1,648,014	-
Later than five years	857,650	-
	$ 2,886,232	$ -

Related Party Transactions

Key management includes personnel having the authority and responsibility for planning, directing and controlling the Company and includes the directors and current executive officers. Expenses incurred for key management compensation are summarized as:

	May 31, 2018	May 31, 2017
Salaries and benefits	$ 150,198	$ 90,074
Administration fees	-	11,129
Consulting	-	11,870
Share based compensation	91,541	70,843
	$ 241,739	$ 183,916

Financial Instruments and Risk Management

LexaGene is active in the biotechnology industry, which means it is exposed to a number of risks. There is a financial risk as the continuing operations of the Company are dependent upon its ability to continue to raise adequate financing and to commence profitable operations in the future. The Company has incurred operating losses since its inception and has experienced negative operating cash flows.

The Company is dependent upon its current management and if the services of such personnel were withdrawn for any reason, this could have a material adverse impact on the Company's operating activities.

Fair Values

The fair values of cash, receivables, short-term loan and trade payables approximate their book values because of the short-term nature of these instruments.

(a) *Financial Risk Management*

The Board of Directors has overall responsibility for the establishment and oversight of the Company's risk management framework. The Company considers the fluctuations of financial markets and seeks to minimize potential adverse effects on financial performance.

(b) *Financial Instrument Risk Exposure*

The Company is exposed in varying degrees to a variety of financial instrument related risks. The Board approves and monitors the risk management process.

Credit Risk
Credit risk is the risk of a financial loss to the Company if counterparty to a financial instrument fails to meet its contractual obligation. The Company's exposure to credit risk includes cash and receivables. The Company reduces its credit risk by maintaining its bank accounts at large international financial institutions. The Company's receivables consist of tax receivables due from federal government agencies and a short-term loan. The maximum exposure to credit risk is equal to the fair value or carrying value of the financial assets.

Liquidity Risk

Liquidity risk is the risk that the Company will not be able to meet its obligations as they become due. The Company's ability to continue as a going concern is dependent on management's ability to raise required funding through future equity issuances. The Company manages its liquidity risk by forecasting cash flows from operations and anticipating any investing and financing activities. Management and the Board of Directors are actively involved in the review, planning and approval of significant expenditures and commitments.

Market risk

Market risk is the risk of loss that may arise from changes in market factors such as interest rates, foreign exchange rates, and commodity and equity prices. Such fluctuations may be significant.

(i) Interest rate risk

The Company has cash balances and no interest-bearing debt. The Company's current policy is to invest excess cash in investment-grade short-term deposit certificates issued by its banking institutions. The Company periodically monitors the investments it makes and is satisfied with the credit ratings of its banks.

(ii) Foreign currency risk

Currency risk is the risk that the fair values or future cash flows of the Company's financial instruments will fluctuate because of changes in foreign currency exchange rates. The Company is exposed to currency risk through financial assets and liabilities denominated in currencies other than the Canadian dollar, the Company's presentation currency.

The Company's financial instruments denominated in currencies that are not the United States dollar as at May 31, 2018 are as follows:

	CAD$	US$ Equivalent
Cash	$ 1,250,391	$ 965,164
Accounts payable and accrued liabilities	(79,472)	(61,343)
Net Exposure	$ 1,170,919	$ 903,821

Based on the US$ denominated exposure as at May 31, 2018, a 10% change in the US/CAD exchange rates would impact the Company's net loss for three months ended May 31, 2018, by approximately $80,000.

(iii) Price risk

The Company is exposed to price risk with respect to commodity and equity prices. Equity price risk is defined as the potential adverse impact on the Company's earnings due to movements in individual equity prices or general movements in the level of the stock market. Commodity price risk is defined as the potential adverse impact on earnings and economic value due to commodity price movements and volatilities. The Company closely monitors commodity prices, individual equity movements and the stock market to determine the appropriate course of action to be taken by the Company.

(c) Technical Risk

The alpha prototype is now functional. As expected with an alpha prototype, additional optimization is required to make the technology competitive with other automated technologies. These improvements are being built into the beta prototype, which is currently under design. Although the technology is functional, some risk remains regarding optimizing the instrument's performance and integrating new components to generate an instrument that is competitive with other technologies. Furthermore, although we are confident the instrument will effectively process simple matrices (e.g. water, buffer, enrichment broth, etc.), we are less confident the initial sample preparation cartridge will effectively process more complex matrices such as milk, blood, and fat-containing liquids. The Company will need to test each of these different matrices to determine performance. It is likely that specialized cartridges will need to be built to effectively process these more challenging matrices. It is also possible that customers frequently processing some matrices may require their instrument to be serviced more frequently.

(d) Life sciences Market Risk

LexaGene's technology offers some advantages that are not available in other sample-to-answer instruments. Most notably, the ability to process large volumes of fluid and the ability to customize genetic screens. The Company believes these features are strong selling points that will result in user adoption. However, the Company is only in the Alpha Prototype development stage, so it only has a rough estimate of the expected list price of the instrument and the cost per test. These estimates are likely to change as more information is gathered during Beta Prototype development. The final price point of LexaGene's instrument and tests, as well as its performance compared to competitor instruments will affect user adoption. If these factors are not favorable for LexaGene, there is a possibly the Company will generate little to no sales. The Company has engaged Ethos Veterinary Health Group to perform market research in veterinary diagnostics, and has completed a survey of food safety officers regarding the need for LexaGene's technology in the food market. The information gained through these efforts will be used to guide the Company's business development strategy and product marketing strategy leading up to commercial launch.

Contingencies

The Company is not aware of any contingencies or pending legal proceedings as of July 30, 2018.

Additional share information

The Company is authorized to issue an unlimited number of common shares without par value. As at July 30, 2018, the Company has 65,838,553 common shares issued and outstanding.

The Company has the following warrants outstanding and exercisable as at July 30, 2018:

Number of Warrants	Exercise Price	Expiry Date
105,000	CAD$ 0.08	June 20, 2019
150,800	CAD$ 0.25	October 4, 2018
5,156,033	CAD$ 0.60	March 13, 2020
2,485,200	CAD$ 1.45	December 19, 2020
372,780	CAD$ 1.45	January 22, 2021
2,875,000	CAD $1.30	July 11, 2021

At July 30, 2018, the weighted average remaining contractual life of warrants outstanding was 2.14 years, with a weighted average exercise price of CAD$1.02.

The Company has the following options outstanding and exercisable as at July 30, 2018:

Options Outstanding	Options Exercisable	Exercise Price	Expiry Date
500,000	200,000	CAD$ 0.36	July 27, 2020
1,125,000	450,000	CAD$ 0.33	July 27, 2020
270,000	67,500	CAD$ 1.05	March 12, 2021
1,360,000	-	CAD$ 1.15	February 20, 2022
75,000	-	CAD$ 1.27	May 16, 2022
100,000	-	CAD$ 0.97	December 26, 2022

At July 30, 2018, the weighted average remaining contractual life of options outstanding was 2.78 years, with a weighted average exercise price of CAD$ 0.79.

In May 2018, the Company granted 295,000 restricted share units to employees with the trigger dates for the RSUs is 10% after six months from the grant date, and 15% every six months thereafter, expiring on May 16, 2021.

In May 2018, the Company granted stock options to purchase a total of 75,000 common shares at a price of CAD$1.27 per common share. No stock options were exercised. During the three months ended May 31, 2018 the Company recorded share-based compensation expense of $80,059 for stock options vested during the period.

As at May 31, 2017 the Company granted stock options to purchase a total of 1,675,000 common shares at a price of CAD$0.33 per common share, and 500,000 common shares at a price of CAD$0.363 per common share. 217,500 Options vested on the date of grant and the rest of the options vest every six months thereafter. The stock options expire on July 27, 2020.

At July 30, 2018, 717,500 stock options are exercisable.

Disclaimer

The information provided in this document is not intended to be a comprehensive review of all matters concerning the Company. It should be read in conjunction with all other disclosure documents provided by the Company, which can be accessed at www.sedar.com. No securities

commission or regulatory authority has reviewed the accuracy or adequacy of the information presented herein.

Cautionary Statement on Forward Looking Information

Certain statements contained in this document constitute "forward-looking statements". Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance, or achievements of the Company to be materially different from any future results, performance, or achievements expressly stated or implied by such forward-looking statements. Such factors include, among others, the following: product development technical risks, life sciences market risks, fluctuation in the equity markets that affect the Company's ability to raise capital, government regulations, competition, litigation risks, and commercial viability risks.