

General

This management discussion and analysis of financial position and results of operations (“MD&A”) is prepared as of June 28, 2019 and should be read in conjunction with the audited consolidated financial statements for the year ended February 28, 2019 and related notes of LexaGene Holdings Inc. (“LexaGene” or the “Company”). These audited consolidated financial statements, including comparatives, have been prepared in accordance with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board (“IASB”) and interpretations of the IFRS Interpretations Committee (“IFRIC”). Unless otherwise cited, references to dollar amounts are in US dollars. This MD&A contains “forward-looking statements” that are subject to risk factors including those set out in the “Cautionary Statement” at the end of this MD&A. All information contained in this MD&A is current and has been approved by the Company’s Board of Directors as of June 28, 2019, unless otherwise indicated. Throughout this report we refer to “LexaGene”, as the “Company”, “we”, “us”, “our”, or “its”. All these terms are used in respect of LexaGene Holdings Inc. Additional information relating to the Company is available on the Company’s website at www.lexagene.com and on SEDAR at www.sedar.com.

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 consolidated financial statements and Management Discussion and Analysis (“MD&A”), is complete, accurate, and reliable.

Business Description

LexaGene is engaged in the research, development and commercialization of automated genetic analyzers for pathogen detection and other applications in the clinical and life sciences industries. The Company’s shares trade 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.

Operational Highlights, 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 over-allotment 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 Company’s genetic analyzers.

These engineering controls are intended to help keep the Company's staff safe and maximize the performance of the Company's technology.

The Company hired 16 Beverly-based employees and 2 Vancouver-based employees, bringing the total headcount of the Company to 21. 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 and Secretary. 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 32 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 of 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 diagnostics 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 a Staff Scientist at Beckman Coulter Molecular Diagnostics and as a Senior Scientist at Roche Molecular Systems, where he developed various qualitative and quantitative diagnostic assays for 510(k) clearance, PMA and CLIA waiver. Early in Dr. Nair career, he worked as a trained veterinarian that specialized in the diagnosis and treatment of animal diseases. 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 \$20.0 billion by 2024.

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. In early 2019, the Company completed four small studies on the alpha prototype. The first focused on detecting pathogens responsible for urinary tract infections in dogs, the second focused on detecting pathogenic *E. coli* on romaine lettuce, the third on genotyping people from a cheek swab, and the fourth on detecting a common agricultural pathogen.

In March 2019, management directed its staff to focus efforts on completing the beta prototype. The beta prototype differs from the alpha prototype in that it is intended to process just one sample at a time, whereas the alpha prototype processes six samples at a time. The number of lanes (i.e. number of samples that can be simultaneously processed) was reduced in the beta to make the instrument more affordable, smaller, and easier to service and ship to potential customers.

The beta prototype incorporates many improvements, including shorter flow path, in-line degasser, improved software less junctions, better optical system, and overall is much smaller

and easier to service. The team has already assembled a working breadboard of the beta, and expects to have a beta prototype functional very soon.

During the beta development process, the Company continues to work on 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, improving the reliability of the microfluidics and internal controls, and adjusting the instrument's thermal control for more efficient target amplification.

As beta development nears completion, management will begin transitioning the team to focus on developing the commercial system, which will likely process two samples at a time.

Other Notable Events

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 Procter and Gamble Company, Inc.: NYSE:PG).

In July 2018, the Company closed a \$3.9M bought deal, including an overallotment of \$570K conducted by a syndicate of underwriters led by Canaccord Genuity Corp. and including Echelon Wealth Partners Inc. Gross proceeds to the Company were approximately \$3.9M. Each unit consisting of one common share and one –half of one common share purchase warrant. Each whole warrant entitles the holder to purchase, subject to adjustment in certain circumstances, one additional common share at a price of CAD\$1.30 per common share until July 11, 2021. The net proceeds of the Offering will be used to accelerate the commercialization and deployment of the Company's Microfluidic technology and for working capital purposes.

In November 2018, LexaGene was named one of the 10 most promising food solution providers by CIOReview based on the Company's pathogen detection system, the LX2™ Genetic Analyzer. LexaGene was chosen for this distinction by a panel of business leaders, along with CIOReview's editorial board.

In December 2018, Lexagene had an Industry Engagement Meeting with the United States Department of Homeland Security (DHS) regarding the applications of the Company's technology for DHS' program on Countering Weapons of Mass Destruction (CWMD).

In December 2018, LexaGene announced the completion of a syndromic panel to detect urinary

tract infection (UTI) in small animals. The panel is capable of detecting each of the eight most common pathogens responsible for the majority (95%) of all clinical canine UTI cases. LexaGene's UTI panel is designed to detect causative pathogens with greater sensitivity and specificity than traditional culture-based detection which is prone to false positive results.

In January 2019, LexaGene announced that the Company formed a scientific advisory board (SAB) to assist the Company in product positioning and its go-to-market strategy. The SAB is comprised of key opinion leaders in the Company's targeted markets, namely food safety, veterinary diagnostics, and open-access markets such as biodefense.

In February 2019, LexaGene announced that its LX technology successfully detected the presence of two different pathogens from a single clinical urine sample in some of the first samples tested in the Company's recently initiated clinical study.

In February 2019, LexaGene announced that its LX technology can detect the presence of antibiotic resistance factors from pathogens that cause urinary tract infections (UTIs) in dogs.

In February 2019, LexaGene announced that the LX genetic analyzer technology, in a fully automated manner, successfully detected all six of the known pathogens in 107 canine urine samples tested. The Company confirms that the LX analyzer technology has robustly – in a sensitive and specific manner – detected each of the six most common pathogens in canine urinary tract infections (UTI) and is 97.5% concordant with reference laboratory generated results.

Selected Yearly Information

	February 28, 2019		February 28, 2018	
Total assets	\$	1,703,886	\$	3,724,167
Working capital	\$	622,565	\$	2,707,371
Loss for the year	\$	8,321,374	\$	4,005,452
Loss per share	\$	0.13	\$	0.08

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)		Net income (loss)		Total assets
		for the period	per share (basic & diluted)		
February 28, 2019	\$	(2,171,768)	\$	(0.04)	\$ 1,703,886
November 30, 2018	\$	(2,254,124)	\$	(0.03)	\$ 3,053,711
August 31, 2018	\$	(2,026,264)	\$	(0.03)	\$ 4,913,268
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)	\$	(0.03)	\$ 969,067
August 31, 2017	\$	(741,064)	\$	(0.01)	\$ 1,514,817
May 31, 2017	\$	(617,902)	\$	(0.01)	\$ 1,800,307

Results of Operations

Twelve months ended February 28, 2019 compared to the twelve months ended February 28, 2018

Net loss

For the year ended February 28, 2019, the Company recorded a net loss of \$8,321,374 compared to a net loss of \$4,005,452 for the year ended February 28, 2018. The significant change during the twelve months ended February 28, 2019, compared to the twelve months ended February 28, 2018, is due to the Company advancing its operations, which includes its research and development of its genetic analyzer device suited for the life sciences industry with a focus on the veterinary, food safety and open-access markets.

Operating expense

The total Operating activities for the year ended February 28, 2019, resulted in an expense of \$8,322,484 as compared to an expense of \$3,977,875 for the year ended February 28, 2018. This increase of \$4,344,609 is primarily the result of the following items:

Marketing and promotional expense

Comparing February 28, 2019, to the same period in 2018, marketing and promotional activities increased in expenses to \$1,262,634 from \$892,448. This increase in expense of \$370,186 in marketing and promotional activities are primarily from the following items:

- Salaries and wages associated with marketing and promotional activities increased to \$388,760 in 2019, as compared to \$243,669 for the same period in 2018. This increase of \$145,091 in expense to salaries and wages is directly related to the increase in new employees and the allocation of salary expenses from executive management.
- Travel expense within the marketing and promotional groups increased to \$163,329 in 2019, as compared to \$18,896 in the same period in 2018. This increase of \$144,433 is attributed to the Company's efforts on increasing Company awareness and promoting its technologies as well as traveling to multiple conferences in the United States, Canada and Europe.
- Share based compensation expense increased to \$136,657 in 2019, as compared to \$43,117 in 2018. This increase of \$93,540 is primarily related to an increase in new options and restricted share units granted to employees as well as the vesting of previously granted options.
- Although LexaGene is committed to building its brand and promoting its technology, general marketing, advertising and promotional expenses decreased to \$515,592 in 2019 from \$559,248 for the same period in 2018. This decrease of \$43,656 was related to the timing of certain promotional campaigns and events.

General and administrative activities

Comparing February 28, 2019, to the same period in 2018, general and administrative activities increased in expenses to \$1,675,637 from \$599,391. This increase in expense of \$1,802,716 in general and administrative activities are primarily from the following items:

- Salaries and wages associated with general and administrative activities increased to \$216,966 in 2019, as compared to \$115,213 for the same period in 2018. This increase of \$101,754 in expense to salaries and wages is directly related to the increase in new employees.
- Share based compensation expense increased to \$865,958 in 2019, as compared to \$129,351 in 2018. This increase of \$736,607 is primarily related to an increase in new options and restricted share units granted to directors, employees, consultants as well as the vesting of previously granted options.
- General office and administrative costs increased to \$139,211 for the year ended February 28, 2019, compared to \$45,012 for the same period in 2018. This increase of \$94,199 is mainly attributed to the costs associated with the Company opening its new headquarters and lab space in April, 2018. Included in this increase is rent of \$83,456.
- During the year ended February 28, 2019, the Company recognized an expense of \$41,439 for the amortization of property and equipment in general and administrative expenses compared to \$2,998 during the same period in 2018. This increase of \$38,441 is due to leasehold improvements, the purchases of furniture and fixtures and the purchasing of office equipment at its new headquarters and lab space in April, 2018.
- Travel increased in general and administrative activities to \$84,458 for the year ended February 28, 2019, as compared to \$56,689 for the same period in 2018. This increase of \$27,769 is related to promoting the Company and attending various tradeshows.

Research and development activities

Comparing February 28, 2019, to the same period in 2018, research and development activities increased in expenses to \$5,384,213 from \$2,486,036. This increase in expense of \$2,898,177 in research and development activities are primarily from the following items:

- Salaries and wages associated research and development activities increased to \$1,772,034 in 2019, as compared to \$269,360 for the same period in 2018. This increase of \$1,502,674 in expense to salaries and wages is directly related to the increase in employees.
- Share based compensation expense increased to \$1,076,197 in 2019, as compared to \$258,702 in 2018. This increase of \$817,495 is primarily related to an increase in new options and restricted share units granted to employees as well as the vesting of previously granted options.

- During the year ended February 28, 2019, the Company recognized an expense of \$81,209 for the amortization of property and equipment in research and development compared to \$5,995 during the same period in 2018. This increase of \$75,213 is mainly from the amortization of lab equipment at its new headquarters and lab space in April, 2018.
- Consulting, lab admin and supplies and LX analyzer materials expenses during year ended February 28, 2019, totaled to \$2,444,957 compared to \$1,829,226 for the same period in 2018. This increase of \$615,731 was comprised of \$1,050,770 paid to outside engineering and consulting firms and \$706,805 related to the purchases of parts and materials as compared to \$1,209,824 paid to outside engineering and consulting firms and \$460,290 related to the purchases of parts and materials for the same period in 2018. This increase in research and development costs is primarily from additional spending related to the alpha and beta product designs and advancing the technology and its capabilities.

Three months ended February 28, 2019 compared to the three months ended February 28, 2018

Net loss

During the three months ended February 28, 2019, the Company recorded a net loss of \$2,171,768 compared to a net loss of \$1,327,174 for the three months ended February 28, 2018. The significant change during the three months ended February 28, 2019, compared to the three months ended February 28, 2018, is due to the Company advancing its operations, which includes its research and development of its genetic analyzer device suited for the life sciences industry with a focus on the veterinary, food safety and open-access markets.

Operating activities

The total Operating activities for three months ended February 28, 2019 resulted in an expense of \$2,171,768 as compared to an expense of \$1,327,174 for the three months ended February 28, 2018. This increase of \$689,061 is primarily the result of the following items:

Marketing and promotional activities

Comparing the three months ended February 28, 2019, to the same period in 2018, marketing and promotional activities increased in expenses to \$333,342 from \$328,650. This increase in expense of \$4,692 in marketing and promotional activities are primarily from the following items:

- Salaries and wages associated with marketing and promotional activities increased to \$97,142 in 2019, as compared to \$79,899 for the same period in 2018. This increase of \$17,243 in expense to salaries and wages is directly related to the increase in employees and the allocation of salary expenses from executive management.
- Travel expense within the marketing and promotional groups increased to \$14,705 in 2019, as compared to \$5,274 in the same period in 2018. This increase of \$9,431 is

attributed to the Company's efforts on increasing Company awareness and promoting its technologies as well as traveling to multiple conferences in the United States, Canada and Europe.

- Share based compensation expense increased to \$52,830 in 2019, as compared to \$19,347 in 2018. This increase of \$33,483 is primarily related to an increase in new options and restricted share units granted to new employees as well as the vesting of previously granted options.
- Although LexaGene is committed to building its brand and promoting its technology, general marketing, advertising and promotional expenses decreased to \$168,665 in 2019 from \$224,130 for the same period in 2018. This decrease of \$55,465 was related to the timing of certain promotional campaigns and events.

General and administrative activities

Comparing the three months ended February 28, 2019, to the same period in 2018, general and administrative activities increased in expenses to \$477,938 from \$175,638. This increase in expense of \$302,301 in general and administrative activities are primarily from the following items:

- Salaries and wages associated with general and administrative activities increased to \$54,774 in 2019 as compared to \$48,012 for the same period in 2018. This increase of \$6,761 in expense to salaries and wages is directly related to the increase in new employees.
- Share based compensation expense increased to \$295,382 in 2019, as compared to \$58,042 in 2018. This increase of \$237,341 is primarily related to an increase in new options and restricted share units granted to directors, employees, consultants as well as the vesting of previously granted options.
- General office and administrative costs increased to \$111,867 for the three months ended February 28, 2019, compared to \$53,521 for the same period in 2018. This increase of \$58,347 is mainly attributed to the costs associated with the Company opening its new headquarters and lab space in April, 2018. Included in this increase is \$15,488 related to professional fees.
- During the three months ended February 28, 2019, the Company recognized an expense of \$10,016 for the amortization of property and equipment in general and administrative expenses compared to \$241 during the same period in 2018. This increase of \$9,775 is due to leasehold improvements, the purchases of furniture and fixtures and the purchasing of office equipment at its new headquarters and lab space in April, 2018.
- Travel decreased in general and administrative activities to \$5,899 for the three months ended February 28, 2019, as compared to \$15,822 for the same period in 2018.

Research and development activities

Comparing the three months ended February 28, 2019, to the same period in 2018, research and development activities increased in expenses to \$1,186,866 from \$804,798. This increase in expense of \$382,068 in research and development activities are primarily from the following items:

- Salaries and wages associated with research and development increased to \$507,534 in 2019 as compared to \$232,001 for the same period in 2018. This increase of \$275,533 in expense to salaries and wages is directly related to the increase in new employees.
- Share based compensation expense increased to \$362,603 in 2019, as compared to \$116,083 in 2018. This increase of \$246,519 is primarily related to an increase in new options and restricted share units granted to employees as well as the vesting of previously granted options.
- During the three months ended February 28, 2019, the Company recognized an expense of \$15,054 for the amortization of property and equipment in research and development compared to \$482 during the same period in 2018. This increase of \$14,571 is mainly from the amortization of lab equipment at its new headquarters and lab space in April, 2018.
- Research and development expense during the three months ended February 28, 2018 decreased to \$299,108 compared to \$456,232 for the same period in 2018. The decrease of \$157,124 was comprised of \$20,968 paid to outside engineering and consulting firms and \$139,455 related to the purchases of parts and materials as compared to \$317,547 paid to outside engineering and consulting firms for the same period in 2018. This decrease in research and development costs is primarily from utilizing employee expertise and relying less on outside firms.

Financial Condition, Liquidity and Capital Resource

The Company's working capital as of February 28, 2019, was \$622,565 including cash of \$670,971 compared to a working capital of \$2,707,370 and cash of \$2,648,354 as of February 28, 2018.

The Company's business currently does not generate revenue or positive cash flows from operations. 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.

Off-Balance Sheet Arrangements

As of the date of this filing, the Company does not have any off-balance-sheet arrangements that have, or are reasonably likely to have, a current or future effect on the results of operations or financial condition of the Company, including, and without limitation, such considerations as liquidity and capital resources.

Commitment

The Company has an operating lease agreement for their office and laboratory premises. Commitment in respect of this lease agreements is as follows:

	2019
Not more than one year	\$ 388,103
Later than one year and not later than five years	1,552,415
Later than five years	485,130
	<u>\$ 2,425,648</u>

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. During the twelve months ended, February 28, 2019 and 2018, expenses incurred for Key Management compensation are summarized as:

	2019	2018
Salaries and benefits	\$ 809,459	\$ 481,575
Administration fees	-	46,585
Stock-based compensation	841,980	301,561
	<u>\$ 1,651,439</u>	<u>\$ 829,721</u>

As at February 28, 2019 and 2018, \$48,786 (2018 - \$nil) was payable to directors and officers of the Company.

All amounts payable and receivable are non-interest bearing, unsecured and due on demand. There are no post-employment expenses or other long-term expenses for key management.

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 and accounts 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. 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 encounter difficulty in satisfying financial obligations as they become due. The Company manages its liquidity risk by forecasting cash flows from operations and anticipated investing and financing activities. The Company's objective in managing liquidity risk is to maintain sufficient readily available reserves in order to meet its liquidity requirements. The Company's accounts payable and accrued liabilities have contractual maturities of less than 30 days and are subject to normal trade terms.

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 investments or debt.

(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 US dollar, the Company's presentation currency.

The Company's financial instruments denominated in currencies that are not the United States dollar as at February 28, 2019 are as follows:

	US\$	
	CAD\$	Equivalent
Cash	508,745	386,341
Accounts payable & accrued expenses	(122,402)	(92,952)
Net exposure	386,343	293,389

The impact of a 10% change in the foreign exchange rates of the Canadian dollar against the US dollar (USD) on the financial assets and liabilities of the Company as at February 28, 2019 is estimated to have an impact in the Company's loss in the amount of approximately \$29,000. The carrying amount of cash, accounts payable and accrued liabilities in USD represents the Company's exposure as at February 28, 2019.

(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 first beta prototype has been assembled and system checks are underway to ensure it meets physical, optical, electrical, and thermal specifications. Fluidic scripts are being optimized and management expect sample-to-answer functionality soon. As expected with any prototype, additional optimization is required to make the technology competitive with other automated technologies. Risk remains regarding optimizing the instrument's performance, improving its microfluidic reliability and internal controls, and integrating new components to generate an instrument that is competitive with other technologies. There is also risk associated with sourcing components required for developing the technology and the manufacturability of key components. Furthermore, although management is confident the instrument will effectively process simple matrices such as water, buffer, and enrichment broth, management is less confident the initial sample preparation cartridge will effectively process more complex matrices such as milk, blood, other fat-containing liquids, particulate laden samples, and viscous samples. The Company will need to test each of these different matrices to determine whether they can be successfully processed by the instrument. Management expects specialized cartridges will need to be designed and manufactured 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) *Competition*

The diagnostics market in which the Company participates is highly complex and competitive. The Company will compete with other companies that are developing or have developed genetic analyzers designed to exploit similar markets to those in which we intend to penetrate. Many of these other companies have substantially greater resources than the Company. There can be no assurance that developments by other companies will not adversely affect the competitiveness of the Company's technologies. The diagnostic industry is also characterized by extensive research efforts and rapid technological change. Competition can be expected to increase as technological advances are made and commercial applications for diagnostic technologies increase. Competitors of the Company may use different technologies or approaches to develop products similar to the products which the Company is seeking to develop, or may develop new or enhanced products or processes that may be more effective and less expensive. There can be no assurance that any product developed by the Company will compete successfully or that research and new industry developments will not render the Company's products obsolete or uneconomical.

(e) *Product Liability and Insurance*

The use of existing products or those under development by the Company may entail risk of product or other liability. The obligation to pay any product liability claim could have a material adverse effect on the business, financial condition and future prospects of the Company.

(f) *Share Price Risk*

LexaGene's share price is subject to equity market price risk, which may result in significant speculation and volatility of trading due to the uncertainty inherent in the Company's business and the technology industry.

There is a risk that future issuances of common shares may result in material dilution of share value, which may lead to declines in share price. The expectations of securities analysts and major investors about our financial or scientific results, the timing of such results, and future prospects, could also have a significant effect on the future trading price of LexaGene's shares.

(g) *People and Process Risk*

A variety of factors may affect LexaGene's future growth and operating results, including the strength and demand for the Company's products, the extent of competition in our markets, the ability to recruit and retain qualified personnel, and the ability to raise capital.

LexaGene's consolidated financial statements are prepared within a framework of IFRS selected by management and approved by the Board of Directors. The assets, liabilities, revenues, and expenses reported in the consolidated financial statements depend to varying degrees on

estimates made by management. An estimate is considered a critical accounting estimate if it requires management to make assumptions about matters that are highly uncertain and if different estimates that could have been used would have a material impact. The significant areas requiring the use of management estimates relate to provisions made for impairment of non-financial assets, amortization of property and equipment and intangible assets, the recognition and valuation of tax liabilities and tax assets, provisions and the assumptions used in determining share-based compensation. These estimates are based on historical experience and reflect certain assumptions about the future that we believe to be both reasonable and conservative. Actual results could differ from those estimates. LexaGene continually evaluates the estimates and assumptions.

(h) *Loss of Key Personnel*

LexaGene relies on certain key employees whose skills and knowledge are critical to maintaining the Company's success. LexaGene always strives to identify and retain key employees and always strives to be competitive with compensation and working conditions.

(i) *Interruption of Raw Material Supply*

Interruption of key raw materials could significantly impact the development of our beta units, future commercial devices and our financial position. LexaGene attempts to purchase key components and raw materials in advance of their anticipated use.

(j) *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, the ability to customize genetic screens, the breadth of target detection, and the time-to-result. The Company believes these features are strong selling points that will result in rapid user adoption. However, the Company is only in the beta 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 further beta prototype and commercial unit development. The final price point of LexaGene's instrument and tests, as well as its performance compared to competitive instruments will affect user adoption. These factors are yet to be determined and if they are not favorable for LexaGene, there is a possibility that 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.

(k) *Additional Financing Requirements and Access to Capital*

LexaGene will require substantial, additional funds for future research and development, planned clinical testing, regulatory approvals, establishment of manufacturing capabilities and, if necessary, the marketing and sale of its products. LexaGene may attempt to raise additional

funds for these purposes through public or private equity to accredited investors and institutions or debt financing, collaborations with other companies and/or from other sources. There can be no assurance that additional funding or partnerships will be available on terms acceptable to the Company and which would foster successful commercialization of LexaGene's products. Additionally, there are many conditions beyond the Company's control which have a direct impact on the level of investor interest in the purchase of Company securities. The Canadian and United States Stock markets have been volatile and may continue to fluctuate significantly in response to a number of factors of which we cannot control.

(l) Share Price Risk

LexaGene's share price is subject to equity market price risk, which may result in significant speculation and volatility of trading due to the uncertainty inherent in the Company's business and the technology industry. There is a risk that future issuance of common shares may result in material dilution of share value, which may lead to further decline in share price. The expectations of securities analysts and major investors about our financial or scientific results, the timing of such results, and future prospects, could also have a significant effect on the future trading price of LexaGene's shares.

(m) Legal Matters

In the normal course of operations, LexaGene may be subject to a variety of legal proceedings, including commercial, product liability, employment as well as governmental and other regulatory investigations and proceedings. Such matters can be time-consuming, divert management's attention and resources, and cause us to incur significant expenses. Furthermore, because litigation is inherently unpredictable, and can be very expensive, the results of any such actions may have a material adverse effect on our business, operations, or financial condition.

The Company is not aware of any contingencies or pending legal proceedings as of June 28, 2019.

Outstanding Equity Instruments

As at June 28, 2019, we had authorized an unlimited number of common shares.

	As At June 28, 2019	As At February 28, 2019	As At February 28, 2018
Common Shares	71,589,124	66,704,103	58,893,553
Warrants	15,671,199	11,096,513	9,464,813
Stock Options	4,608,000 (1)	3,860,000	3,342,500
Restricted Share units	2,722,900	2,527,250	1,790,000
Total	94,591,223	84,187,866	73,490,866

(1) 1,777,991 of the 4,608,000 stock options are vested and exercisable.

The Company has 15,671,199 warrants outstanding at June 28, 2019, which are exercisable into common shares at exercise prices ranging between CAD\$0.08 and CAD\$1.45.

The Company has 4,608,000 stock options outstanding at June 28, 2019, which are exercisable into common shares at exercise prices ranging between CAD\$0.33 and CAD\$1.27.

Additional information relating to our securities can be found in Note 7 to the audited consolidated financial statements for the year ended February 28, 2019.

Accounting pronouncements adopted by the Company

IFRS 2 Share-Based Payment: In June 2016 the Board issued the final amendments to IFRS 2 *Share-Based Payment* as follows:

- (i) Effects that vesting conditions have on the measurement of a cash-settled share-based payment;
- (ii) Accounting for modification to the terms of a share-based payment that changes the classification of the transaction from cash-settled to equity settled;
- (iii) Classification of share-based payment transactions with net settlement features.

The adoption of this standard did not have a significant impact on the Company's financial statements.

IFRS 7 Financial Instruments – Disclosure: IFRS 7 was amended to require additional disclosures on transition from IAS 39 to IFRS 9. The standard is effective on adoption of IFRS 9, which is effective for annual periods beginning on or after January 1, 2018. The adoption of this standard did not have a significant impact on the Company's financial statements.

In July 2014, the IASB issued the final version of IFRS 9 – *Financial Instruments* (“IFRS 9”) to replace IAS 39 – *Financial Instruments: Recognition and Measurement* in its entirety. IFRS 9 provides a revised model for recognition and measurement of financial instruments and a single, forward-looking ‘expected-loss’ impairment model, as well as a substantially reformed approach to hedge accounting. The standard did not impact the Company's classification and measurement of financial assets and liabilities, and there was no significant impact on the carrying amounts of the Company's financial instruments at the transition date.

IFRS 15 Revenue from Contracts with Customers: IFRS 15 provides guidance on how and when revenue from contracts with customers is to be recognized, along with new disclosure requirements in order to provide financial statement users with more informative and relevant information. The adoption of this standard did not have a significant impact on the Company's financial statements, as the Company has not generated revenue.

The Company has not early adopted the following standards and amendments and anticipates that the application of these standards and amendments will not have a material impact on the financial position and financial performance of the Company:

IFRS 16 *Leases*: IFRS 16 will be effective for accounting periods beginning on or after January 1, 2019. Early adoption will be permitted, provided the Company has adopted IFRS 15. This standard sets out a new model for lease accounting. The Company will adopt IFRS 16 in its financial statements for the annual period beginning on April 1, 2019. The Company estimates to recognize approximately \$1,723,863 as a right-of-use asset and a corresponding lease liability in connection with its lease of its office in Beverly, MA.

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.