## General

This management discussion and analysis of financial position and results of operations ("MD&A) is prepared as at January 27, 2020. These statements 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"). 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 January 29, 2020, 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 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., 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.

Using this money, the Company hired both US based employees and Vancouver-based employees. 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's career, he worked as a trained veterinarian and 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.

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.

Another survey was performed through Ethos Veterinary Health Group. In this survey, the Company confirmed the need for higher quality, point-of-care 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 Company is also pursuing the open-access market, which is comprised of laboratories performing water quality testing, aquaculture pathogen surveillance, genotyping and other custom genetic testing needs.

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 510(k) clearance from the FDA.

In May 2018, the Company's alpha prototype started generating data, detecting *E. coli* and *Staphylococcus*.

In July 2018, the Company closed an over-subscribed, $4.4M bought deal.

By January 2019, the quality of the alpha prototype data had improved to the point where the Company initiated several small studies. 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, the Company closed an over-subscribed, $2.1M non-brokered private placement.

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 to speed up product development time, minimize costs and reduce the size of the instruments footprint. Smaller beta prototypes are more easily shipped to beta testers.

The beta prototype incorporates many improvements, including shorter flow paths, in-line degasser, improved software, less junctions and a better optical system.

In June 2019, LexaGene placed its first beta prototype into the Massachusetts Veterinary Referral Hospital, where veterinarians used the instrument to screen biological samples collected from dogs and cats. Later, the Company placed beta prototypes into CDX Analytics for testing cannabis samples and Assurance Scientific Laboratories for testing human urine sample. The Company also engaged ProVerde for beta testing, and has since suspended the test in favor of waiting for the pre-commercial instrument.

LexaGene is now focused on finalizing the design of its pre-commercial instrument. Once ready for field testing, LexaGene intends to manufacture ten instruments to be placed at various sites throughout the United States as part of an ongoing test program. This allows potential customers to experience the technology in their own facility where they can compare LX-generated results to their standard testing methods.

In July 2019, LexaGene filed three provisional applications to protect the proprietary science and designs of the LX2™ technology, adding to the LexaGene intellectual property portfolio. These provisionals provide additional protection of sample preparation, data and image processing algorithms, and reagent consumables for microfluidic PCR functions. This pending intellectual property plus existing IP issued and licensed provide LexaGene with intellectual protection for its genetic analyzers and consumables.

On October 29, 2019, LexaGene closed an Offering of units for aggregate gross proceeds of CAD$6.64 million. LexaGene issued 12,769,626 units (the "Units") at a price of CAD$0.52 per Unit. Each Unit consists of one common share of the Company and one common share purchase warrant, with each warrant entitling the holder to purchase one share of the Company at the price of CAD$0.75 per Share until October 29, 2022

The Offering was conducted by Industrial Alliance Securities Inc. (the "Agent"). LexaGene issued to the agent an aggregate of 735,229 broker warrants, each Broker warrant entitling the holder to purchase one share at the price of CAD$0.52 per share until October 29, 2022.

The Company has begun designing its commercial instrument.

## Selected Yearly Information

| | February 28, 2019 | February 28, 2018 | February 28, 2017 |
|---|---|---|---|
| Total assets | $ 1,703,886 | $ 3,724,167 | $ 1,052,274 |
| Working capital | $ 622,565 | $ 2,707,371 | $ 818,138 |
| Loss for the year | $ 8,321,374 | $ 4,005,452 | $ 4,483,215 |
| Loss per share | $ 0.13 | $ 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 |
|---|---|---|---|
| November 30, 2019 | $ (2,530,693) | $ (0.03) | $ 5,749,225 |
| August 31, 2019 | $ (1,282,424) | $ (0.02) | $ 3,314,240 |
| May 31, 2019 | $ (2,006,576) | $ (0.03) | $ 4,362,052 |
| February 28, 2019 | $ (2,171,068) | $ (0.04) | $ 1,703,886 |
| November 30, 2018 | $ (2,254,124) | $ (0.03) | $ 3,053,711 |
| August 31, 2018 | $ (2,026,264) | $ (0.03) | $ 4,913,267 |
| May 31, 2018 | $ (1,869,218) | $ (0.03) | $ 2,339,003 |
| February 28, 2018 | $ (1,327,174) | $ (0.03) | $ 3,724,167 |

## Results of Operations

***Three months ended November 30, 2019 compared to the three months ended November 30, 2018***

*Net loss*
For the three months ended November 30 2019, the Company recorded a net loss of $2,530,693 compared to a net loss of $2,254,124 for the three months ended November 30, 2018. The net loss has increased for the three months ended November 30, 2019 in comparison to the same period in 2018. This increase of $276,569 was due to the following items.

*Operating expense*
The total operating activities for the three months ended November 30, 2019, resulted in an expense of $2,283,471 as compared to an expense of $2,396,299 for the same period in 2018. This decrease of $112,828 is primarily the result of the following items:

*Marketing and promotional expense*
Comparing the three months November 30, 2019, to the same period in 2018, marketing and promotional activities decreased to $288,411 from $299,612. This decrease in expense of $11,201 in marketing and promotional activities are primarily from the following items:

- Salaries and wages associated with marketing and promotional activities increased to $196,344 in 2019, as compared to $91,597 for the same period in 2018. This increase of $104,747 in expense to salaries and wages is directly related to the increase in incentive compensation.

- Travel expense within the marketing and promotional groups decreased to $12,810 in 2019, as compared to $38,730 for the same period in 2018. This decrease of $25,920 is due to the number and timing of conferences in the United States, Canada and Europe.

- Share based compensation expense decreased to $36,159 in 2019, as compared to $39,133 in 2018. This decrease of $2,974 is primarily related to 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 $43,097 in 2019 from $130,152 for the same period in 2018. This decrease of $87,055 was related to the timing of certain promotional campaigns and events.

*General and administrative activities*
Comparing the three months ended November 30, 2019, to the same period in 2018, general and administrative activities increased in expenses to $733,324 from $370,706. This increase in expense of $362,618 in general and administrative activities are primarily from the following items:

- Salaries and wages associated with general and administrative activities increased to $117,050 in 2019, as compared to $50,950 for the same period in 2018. This increase of $66,100 in expense to salaries and wages is directly related to the increase in incentive compensation.

- Share based compensation expense decreased to $132,863 in 2019, as compared to $186,948 for the same period in 2018. This decrease of $54,085 is primarily related to the decrease in new options and restricted share units granted to directors, employees, consultants offset by the vesting of previously granted options.

- General office and administrative costs decreased to $15,782 for the three months ended November 30, 2019, compared to $32,758 for the same period in 2018. This decrease of $16,976 is mainly attributed to the Company controlling costs and limiting certain office and administrative purchases.

- During the three months ended November 30, 2019, the Company recognized an expense of $330,121 for promotion and investor relations in general and administrative expenses compared to $4,264 during the same period in 2018. This increase of $325,857 is due to the Company's attempts to increase awareness of the LexaGene brand and expand its current shareholder base.

- Travel decreased in general and administrative activities to $9,337 for the three months ended November 30, 2019, as compared to $18,435 for the same period in 2018. This decrease of $9,098 is related to the timing of certain promotional campaigns and events.

- During the three months ended November 30, 2019, the Company recognized an expense of $56,407 for the amortization of property and equipment and the right to use asset in general and administrative expenses compared to $12,811 during the same period in 2018. This increase of $43,596 is mainly from the amortization of the right to use asset (the Company's operating lease).

*Research and development activities*

Comparing the three months ended November 30, 2019, to the same period in 2018, research and development activities decreased in expenses to $1,261,736 from $1,783,158. This decrease in expense of $521,422 in research and development activities are primarily from the following items:

- Salaries and wages associated with research and development activities increased to $825,619 in 2019, as compared to $439,233 for the same period in 2018. This increase of $386,386 directly related to the increase in headcount and incentive compensation as compared to the same period in 2018.

- Share based compensation expense decreased to $194,483 in 2019, as compared to $203,409 in 2018. This decrease of $8,925 is primarily related to a decrease in new options

and restricted share units granted to employees offset by the vesting of previously granted options.

- During the three months ended November 30, 2019, the Company recognized an expense of $51,550 for the amortization of property and equipment, the right to use asset, and the intangible license in research and development compared to $30,853 during the same period in 2018. This increase of $20,697 is mainly from the amortization of the right to use asset (the Company's operating lease).

- Consulting, laboratory admininstration and supplies and LX analyzer material expenses during the three months ended November 30, 2019, totaled $190,084 compared to $923,916 for the same period in 2018. This decrease of $733,832 was primarily comprised of $6,885 paid to outside engineering and consulting firms and $63,160 related to the purchases of parts and materials in 2019 as compared to $613,918 paid to outside engineering and consulting firms and $309,998 related to the purchases of parts and materials for the same period in 2018.

***Nine months ended November 30, 2019 compared to the nine months ended November 30, 2018***

*Net loss*
For the nine months ended November 30, 2019, the Company recorded a net loss of $5,819,692 compared to a net loss of $6,150,306 for the nine months ended November 30, 2018. The net loss has decreased for the nine months ended November 30, 2019 in comparison to the same period in 2018. This decrease was primarily attributed to the following items:

*Operating expense*
The total operating activities for the nine months ended November 30, 2019, resulted in an expense of $5,817,923 as compared to an expense of $6,428,475 for the same period in 2018. This decrease of $610,552 is primarily the result of the following items:

*Marketing and promotional expense*
Comparing the nine months ended November 30, 2019, to the same period in 2018, marketing and promotional activities decreased to $732,463 from $944,564. This decrease in expense of $212,101 in marketing and promotional activities are primarily from the following items:

- Salaries and wages associated with marketing and promotional activities increased to $384,627 in 2019, as compared to $291,618 for the same period in 2018. This increase of $93,009 is directly related to the increase in incentive compensation.

- Travel expense within the marketing and promotional groups decreased to $41,392 in 2019, as compared to $148,624 for the same period in 2018. This decrease of $107,232 is due to expenses related to the opening of the new headquarters in Beverly, Massachusetts in 2018 and the timing of conferences in the United States, Canada and Europe.

- Share based compensation expense increased to $177,569 in 2019, as compared to $99,098 in 2018. This increase of $78,471 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 $128,873 in 2019 from $405,224 for the same period in 2018. This decrease of $276,351 was related to the timing of promotional campaigns and controlling spending in 2019.

*General and administrative activities*

Comparing the nine months ended November 30, 2019, to the same period in 2018, general and administrative activities increased in expenses to $1,645,584 from $1,324,780. This increase in expense of $320,804 in general and administrative activities is primarily from the following items:

- Salaries and wages associated with general and administrative activities increased to $241,338 in 2019, as compared to $162,193 for the same period in 2018. This increase of $79,145 in expense to salaries and wages is directly related to the increase in new employees and increases in incentive compensation.

- Share based compensation expense decreased to $524,030 in 2019, as compared to $667,347 in 2018. This decrease of $143,317 is primarily related to decrease in new options and restricted share units granted to directors, employees and consultants offset by the vesting of previously granted options.

- General office and administrative costs decreased to $47,723 for the nine months ended November 30, 2019, compared to $133,095 for the same period in 2018. This decrease of $85,372 is mainly attributed to the Company controlling costs and limiting certain office and administrative purchases.

- Travel decreased in general and administrative activities to $28,602 for the nine months ended November 30, 2019, as compared to $78,558 for the same period in 2018. This decrease of $49,956 is due to expenses related to the opening of the new headquarters in Beverly, Massachusetts in 2018 and the timing of certain promotional campaigns and events.

- During the nine months ended November 30, 2019, the Company recognized an expense of $167,596 for the amortization of property and equipment and the right to use asset in general and administrative expenses compared to $31,423 during the same period in 2018. This increase of $136,173 is mainly from the amortization of the right to use asset (the Company's operating lease).

*Research and development activities*
Comparing the nine months ended November 30, 2019, to the same period in 2018, research and development activities decreased in expenses to $3,439,877 from $4,159,131. This decrease in expense of $719,254 in research and development activities are primarily from the following items:

- Salaries and wages associated with research and development activities increased to $1,873,502 in 2019, as compared to $1,264,501 for the same period in 2018. This increase of $609,001 for salaries and wages is directly related to the increase in employees and incentive compensation.

- Share based compensation expense decreased to $522,899 in 2019, as compared to $728,457 in 2018. This decrease of $205,558 is primarily related to a decrease in new options and restricted share units granted to employees offset by the vesting of previously granted options.

- During the nine months ended November 30, 2019, the Company recognized an expense of $153,641 for the amortization of property and equipment, the right to use asset and intangible license in research and development compared to $73,402 during the same period in 2018. This increase of $80,239 is mainly from the amortization of the right to use asset (the Company's operating lease).

- Consulting, laboratory administration and supplies, and LX analyzer material expenses during the nine months ended November 30, 2019, totaled $889,835 compared to $2,024,926 for the same period in 2018. This decrease of $1,135,091 was comprised of $253,841 paid to outside engineering and consulting firms and $325,065 related to the purchases of parts and materials as compared to $1,029,802 paid to outside engineering and consulting firms and $585,162 related to the purchases of parts and materials for the same period in 2018.

**Financial Condition, Liquidity and Capital Resource**

The Company's working capital as at November 30, 2019, was $2,929,345 including cash of $2,840,361 compared to a working capital of $622,565 and cash of $670,921 as of February 28, 2019.

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.

## Reconciliation of Use of Proceeds from Financing Activities

On October 29, 2019, the Company closed an Offering of units for aggregate gross proceeds of CAD$6.64 million. The Company issued 12,769,626 units (the "Units") at a price of CAD$0.52 per Unit. Each Unit consists of one common share of the Company and one common share purchase warrant, with each warrant entitling the holder to purchase one share of the Company at the price of CAD$0.75 per share until October 29, 2022.

The Offering was conducted by Industrial Alliance Securities Inc. (the "Agent"). The Company issued to the agent an aggregate of 735,229 broker warrants, each Broker warrant entitling the holder to purchase one share at the price of CAD$0.52 per share until October 29, 2022.

The use of proceeds are listed below and converted to US Dollars using the Canadian to US Dollar exchange rate of $0.7648.

| Intended Use of Proceeds of October 2019 Offering (CAD) | | US Dollar Conversion (USD) | Actual Use of Proceeds from October 2019 Offering (USD) | Variance - (Over) / Under Expenditure (USD) | Explanation of Variance and Impact on Business Objectives |
|---|---|---|---|---|---|
| Salaries and benefits for current employees for one year | $ 2,000,000 | $ 1,529,600 | $ 220,316 | $ 1,309,284 | **On-going expense** |
| Salaries for Director of Sales and Marketing | $ 180,000 | $ 137,664 | $ - | $ 137,664 | **Look to fill this position in early 2020** |
| Hire Additional Product Development Personnel | $ 100,000 | $ 76,480 | $ - | $ 76,480 | **Look to fill this position in early 2020** |
| Build three pre-commercial instruments | $ 150,000 | $ 114,720 | $ - | $ 114,720 | **The Company will begin this build in the 1st half of 2020** |
| Purchase equipment, biological reagents, consumable materials and tooling | $ 80,000 | $ 61,184 | $ 39,500 | $ 21,684 | **Purchased equipment for manufacturing** |
| Product development and manufacturing | $ 100,000 | $ 76,480 | $ 27,571 | $ 48,909 | **On going expense** |
| Corporate marketing expenses (i.e. conferences, advertisement, etc.) | $ 100,000 | $ 76,480 | $ 14,189 | $ 62,291 | **On going expense** |
| General working capital purposes, investments in new systems, technologies and processes | $ 260,000 | $ 198,848 | $ - | $ 198,848 | **On going expense** |
| **Total** | **$ 2,970,000** | **$ 2,271,456** | **$ 301,576** | **$ 1,969,880** | **Cash remaining from financing** |

On March 29, 2019, LexaGene closed an over-subscribed private placement. LexaGene issued 4,375,271 units (the "Units") at a price of CAD$0.65 per Unit. Each Unit is comprised of one

common share and one warrant, with each whole warrant entitling the holder to purchase one common share of the Company for a period of up to fifteen months at a price of CAD$0.85. The warrants are subject to an accelerated expiry in circumstances where, at any time commencing two (2) months from the date the warrants are issued, if for the preceding five (5) consecutive trading days, the daily volume weighted average trading price of the Company's common shares is greater than CAD$1.10, in which case the Company may accelerate the expiry date of the warrants by giving notice to the holders thereof and in such case the warrants will expire on the 30th calendar day after the date of such notice.

In addition, LexaGene paid finders' fees totaling CAD$168,620 and issued an aggregate 259,455 non-transferable finders' warrants (the "Finders' Warrants"). Each Finder's Warrant is exercisable into one common share for a period of up to fifteen months at a price of CAD$0.85. The use of proceeds are listed below and converted to US Dollars using the Canadian to US Dollar exchange rate of $0.7483.

| Intended Use of Proceeds of March 2019 Offering (CAD) | | US Dollar Conversion (USD) | Actual Use of Proceeds from March 2019 Offering (USD) | Variance - (Over) / Under Expenditure (USD) | Explanation of Variance and Impact on Business Objectives |
|---|---|---|---|---|---|
| Offering Expenses | $ 24,329 | $ 18,205 | $ 18,205 | $ - | |
| Finder Fees | $ 168,620 | $ 126,178 | $ 125,954 | $ - | |
| Beta development including building 4 beta units | $ 1,500,000 | $ 1,122,450 | $ 1,222,991 | $ (100,541) | **Software development was more than anticipated** |
| Reagent development | $ 300,000 | $ 224,490 | $ 200,000 | $ 24,490 | **Expenses were less than anticipated** |
| Marketing activities | $ 568,785 | $ 425,622 | $ 350,000 | $ 75,622 | **Expenses were less than anticipated** |
| General working capital | $ 282,192 | $ 211,164 | $ 210,735 | $ 429 | **Expenses were less than anticipated** |
| **Total** | **$ 2,843,926** | **$ 2,128,109** | **$ 2,127,885** | **$ -** | **Cash remaining from financing** |

## 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.

## Related Party Transactions

Key management includes the directors and current executive officers that have the authority and responsibility for planning, directing and controlling the Company. For the nine months ended, November 30, 2019 and 2018, expenses incurred for key management compensation are summarized as:

| | Three month ended, November 30, | | Nine month ended, November 30, | |
|---|---|---|---|---|
| | 2019 | 2018 | 2019 | 2018 |
| Salaries and benefits | $ 434,650 | $ 183,937 | $ 790,419 | $ 587,296 |
| Stock-based compensation | 73,484 | 206,505 | 290,437 | 685,309 |
| | $ 508,134 | $ 390,442 | $ 1,080,856 | $ 1,272,605 |

As at November 30, 2019 and 2018, $7,200 (2018 - $nil) was payable to directors of the Company.

All amounts payable 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 life science 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.

**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 to be a risk and seeks to minimize the 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 November 30, 2019 are as follows:

| | CAD$ | US$ Equivalent |
|---|---|---|
| Cash | 1,890,025 | 1,422,244 |
| Accounts payable & accrued expenses | (134,813) | (101,447) |
| Net exposure | 1,755,212 | 1,320,797 |

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 November 30, 2019 is estimated to have an impact in the Company's loss in the amount of approximately $42,580. The carrying amount of cash, accounts payable and accrued liabilities in USD represents the Company's exposure as at November 30, 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***

Beta prototypes have been assembled and system checks were performed to ensure they met physical, optical, electrical, and thermal specifications. Fluidic scrips continue to be optimized. As expected with any technology under development, additional optimization is required to make the technology competitive in targeted markets. Risk remains regarding optimizing the instrument's performance, improving its microfluidic reliability and internal controls, and integrating new components. 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 primarily comprised of water, buffer, or 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 be needed 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)** ***Manufacturing Risk***

The manufacture of our products may be highly complex and may require precise high quality manufacturing that may be difficult for us to achieve. As we finalize our commercial design and begin the process of manufacturing finished goods, we may experience difficulties in the manufacturing of our products in a timely basis and in sufficient quantities. These difficulties may relate to delays and difficulties associated with ramping up production of our products and may result in increased delivery lead-times and increased costs of manufacturing our products. Future production of our products may require the development of new manufacturing technologies and expertise, which we may be unable to develop. Our failure, including the failure of our contract manufacturers, to achieve and maintain the required high manufacturing standards could result in delays or failures in product testing or delivery to end-users, cost overruns, product recalls or sales withdrawals, increased warranty costs or other problems that could harm our business and prospects.

**(e)** ***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 targeted markets. 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. Competition can be expected to increase as technological advances are made and commercial applications for diagnostic technologies increases. Competitors may use different technologies or approaches to develop products similar to the Company's products 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.

**(f)** ***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.

**(g)** ***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.

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.

The market price of the Common Shares could decline as a result of issuances by the Company or sales by existing shareholders of Common Shares in the market, or the perception that these sales could occur. Sales by shareholders might also make it more difficult for the Company to sell equity securities at a time and price deemed appropriate.

**(h)** ***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 targeted 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 on varying degrees of 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 could have been used that 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 these estimates and assumptions.

**(i)** ***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.

**(j)** ***Interruption of Raw Material Supply***

Interruption of key raw materials could significantly impact the development of our technology. LexaGene attempts to purchase key components and raw materials in advance of their anticipated use.

**(k)** ***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 easily 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 performance of the instrument, its expected list price and cost per test. These estimates are likely to change as more information is gathered during further beta 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.

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

LexaGene will require substantial, additional funds to support 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. Additionally, there are many conditions beyond the Company's control that have a direct impact on the level of investor interest in the purchase of Company securities. For example, 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 the Company cannot control.

**(m)** ***Protection of Intellectual Property***

LexaGene's success depends in part on its ability to maintain or obtain and enforce patent and other intellectual property protections for its processes and technologies and to operate without infringing upon the proprietary rights of third parties or having third parties circumvent the rights that the Company owns or licenses. The Company has applications and registrations in the United States and other jurisdictions, and has received some patents and expects others, and may, in the future, seek additional patents and registrations or file patent applications and registrations.

Patents may provide some degree of protection for intellectual property; however, patent protection involves complex legal and factual determinations and is therefore uncertain. LexaGene cannot be assured that its patents or patent applications will be valid or will issue over prior art, or

that patents will issue from the patent applications it has filed or will file. Additionally, LexaGene cannot be assured that the scope of any claims granted in any patent will be commercially useful or will provide adequate protection for the technology used currently or in the future. LexaGene cannot be certain that the creators of its technology were the first inventors of inventions and processes covered by its patents and patent applications or that they were the first to file. Accordingly, it cannot be assured that its patents will be valid or will afford protection against competitors with similar technology or processes. Despite its efforts to protect its proprietary rights, unauthorized parties may attempt to copy or otherwise obtain and use its proprietary information. Monitoring unauthorized use of confidential information is difficult and the Company cannot be certain that the steps taken to prevent unauthorized use of confidential information will be effective. In addition, the laws governing patent protection continue to evolve and are different from one country to the next, all of which causes further uncertainty in the usefulness of a patent. In addition, issued patents or patents licensed to LexaGene may be successfully challenged, invalidated, circumvented or may be unenforceable so that the Company's patent rights would not create an effective competitive barrier.

Moreover, the laws of some countries may not protect LexaGene's proprietary rights to the same extent as do the laws of the United States. There are also countries in which LexaGene intends to sell its products, but has no patents or pending patent applications, or trademark registrations. LexaGene's ability to prevent others from making or selling duplicate or similar technologies will be impaired in those countries in which there is no intellectual property protection. If LexaGene is not able to adequately protect its intellectual property and proprietary technology, its competitive position, future business prospects and financial performance will be adversely affected. Unpatented trade secrets, technological innovation and confidential know-how are also important to LexaGene's success. Although protection is sought for proprietary information through confidentiality agreements and other appropriate means, these measures may not effectively prevent disclosure of proprietary information, and, in any event, it cannot be assured that others will not independently develop the same or similar information or gain access to the same or similar information. In view of these factors, LexaGene's intellectual property positions have a degree of uncertainty. Setbacks in these areas could negatively affect LexaGene's ability to compete and materially and adversely affect its business, financial condition and results of operations.

**(n)** ***Large Accumulated Deficit***

LexaGene has a large accumulated deficit, expects future losses, and may never achieve or maintain profitability. It has incurred substantial losses since inception and expects to incur additional operating losses in the future as a result of research and development costs and ongoing operating costs including the additional costs of operating as a public company. The extent of LexaGene's future losses is highly uncertain, and its prospects must be considered in light of the risks and uncertainties encountered by a company in the early stage of product development in the continuously evolving diagnostics market, including the risks described throughout this MD&A. If LexaGene cannot successfully address these risks, its business and financial condition will suffer.

**(o)** ***Legal Matters***

In the normal course of operations, LexaGene may be subject to a variety of legal proceedings, including 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 can cause the Company 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 at January 27, 2020.

**Outstanding Equity Instruments**

As at January 27, 2020, we had authorized an unlimited number of common shares.

| | As at January 27, 2020 | | As at November 30, 2019 | As at February 28, 2019 |
|---|---|---|---|---|
| Common Shares | 86,193,600 | | 85,688,800 | 66,166,353 |
| Warrants | 27,829,129 | | 28,325,054 | 11,096,513 |
| Stock Options | 4,533,000 | (1) | 4,533,000 | 3,860,000 |
| Restricted Share units | 2,026,475 | | 2,055,350 | 2,872,000 |
| Total | 120,582,204 | | 120,602,204 | 83,994,866 |

(1) 2,526,750 of the 4,533,000 stock options are vested and exercisable.

The Company has 27,829,129 warrants outstanding at January 27, 2020, which are exercisable into common shares at exercise prices ranging between CAD$0.52 and CAD$1.45.

The Company has 4,533,000 stock options outstanding at January 27, 2020, which are exercisable into common shares at exercise prices ranging between CAD$0.33 and CAD$1.15.

**Accounting pronouncements adopted by the Company**

The accounting policies and basis of measurement applied in the condensed consolidated interim financial statements as at November 30, 2019 are the same as those applied by LexaGene in its consolidated financial statements for the year ended February 28, 2019, except as described below.

**Changes in significant accounting policies in 2019**

The Company adopted IFRS 16, *Leases* from March 1, 2019.

IFRS 16 introduced a single, on-balance sheet accounting model for lessees. As a result, LexaGene, as a lessee, has recognized a right-of-use asset representing its rights to use the underlying asset and a lease liability representing its obligation to make lease payments in its statement of financial position in relation to its property lease.

The Company has applied IFRS 16 using the modified retrospective approach, under which the cumulative effect of initial application is recognized in retained earnings as at March 1, 2019. Accordingly, the comparative information presented for the year ended February 28, 2019 has not been restated. It is presented under lAS 17, Leases and related interpretations. Further information on this accounting change can be found in note 3 and note 7 to the November 30, 2019 unaudited condensed interim consolidated financial statements.

**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 previously predicted results or performance 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.