The Company's Management's Discussion and Analysis ("MD&A") should be read in conjunction with the audited Consolidated Financial Statements and notes for the year ended September 30, 2018, prepared in accordance with International Financial Reporting Standards ("IFRS") and filed on SEDAR. Additional information relating to the Company, including its Annual Information Form ("AIF"), can be found on SEDAR at www.sedar.com. Reference to "we", "us", "our", or the "Company" means Microbix Biosystems Inc. unless otherwise stated. All amounts are presented in Canadian dollars unless otherwise stated. Statements contained herein, which are not historical facts, are forward looking statements that are subject to certain risks and uncertainties that could cause actual results to differ materially from those set forth or implied. These forward-looking statements include, without limitation, discussion of financial results or the outlook for the business, risks associated with its financial results and stability, its biologicals business, development projects such as those referenced herein, sales to foreign jurisdictions, engineering and construction, production (including control over costs, quality, quantity and timeliness of delivery), foreign currency and exchange rates, maintaining adequate working capital and raising further capital on acceptable terms or at all, and other similar statements concerning anticipated future events, conditions or results that are not historical facts. These statements reflect management's current estimates, beliefs, intentions and expectations; they are not guarantees of future performance. The Company cautions that all forward looking information is inherently uncertain and that actual performance may be affected by a number of material factors, many of which are beyond the Company's control. Accordingly, actual future events, conditions and results may differ materially from the estimates, beliefs, intentions and expectations expressed or implied in the forward looking information. All statements are made as of the date of this disclosure and represent the Company's judgment as of that date and the Company disclaims any intent or obligation to update such forward-looking statements.

The Management Discussion and Analysis is dated December 20, 2018.

COMPANY OVERVIEW

Microbix Biosystems Inc. (Microbix or the Company) (TSX: MBX) specializes in developing biological and technology solutions for human health and well-being. It manufactures a wide range of critical biological materials for the global diagnostics industry, notably purified and inactivated bacteria and viruses, known as antigens, which are used in immunoassays or quality assessment products. Microbix' antigen-based products are sold to more than 100 customers worldwide, primarily to multinational diagnostics companies and laboratory accreditation organizations

Microbix has also applied its biological expertise and infrastructure to create proprietary new products or technologies. It has been working to commercialize two; (1) Kinlytic® urokinase, a biologic thrombolytic drug (used to dissolve blood clots), and (2) LumiSort™ cell-sorting, a technology platform for ultra-rapid and efficient sorting of particles that can be used to enrich cell populations of interest (such as sexing semen for the livestock industry).

Revenue from the antigens business (Antigens) is expected to continue growing for the foreseeable future, with this growth recently accelerating as certain public health tests are being adopted in the Asia Pacific region. The Antigens business provides free cash flow to cover operating and debt service costs, and funding for business initiatives that leverage this expertise and are related to this field.

The Company owns and operates an Antigens manufacturing facility at 265 Watline Avenue in Mississauga, Ontario. Microbix has a Pathogen and Toxin license for its facility, issued by the Public Health Agency of Canada. The Company's administrative offices are located at 211 Watline Avenue, Mississauga, Ontario.

FINANCIAL OVERVIEW

Year Ending September 30, 2018 ("2018")

For 2018, revenue was $12,510,558, a 23% increase over 2017 revenue of $10,185,798, with sales to each of Microbix' two largest customers increasing significantly. Included were antigen and quality product revenues of $12,191,357, 23% higher than 2017, due to strong sales growth in Asia and increased sales to key customers. Revenue from royalties was up 9% at $319,201 (2017 - $293,939).

At $5,369,436, gross margin increased by $557,063 or 12%, due to increased sales and changes to product mix, but with sales-related gains offset by yield-control issues with a conventionally-produced antigen. Additionally, the benefit of shifting production of a leading antigen into bioreactors was not fully-realized due to the conversion of a key customer being slower than anticipated.

Operating expenses for 2018 decreased by $199,663 compared to 2017. This was primarily due to lower legal costs in 2018 versus prior year. However, during its review of intangible assets, Microbix determined that it has become less likely that it will fully recover the investments made in LumiSort™. The decision was therefore made to write-down all LumiSort™-related assets; namely its original investment and its capitalized development, prototyping and patenting costs. While Microbix can no longer support retaining an asset value of $7,878,758 on its books for LumiSort, efforts to license or sell the technology will continue.

As a result, the Company experienced a net loss for the year of $8,621,566 (versus a net loss of $3,780,088 for 2017). Adjusting for such one-time costs in both fiscal years, operating loss before debt restructuring, settlement expenses and impairment of assets in 2018 was $742,808 compared to a loss of $1,499,534 for 2017.

Cash used in operations (CFO) in 2018 was $537,005, compared to cash provided of $297,047 in 2017. This swing was largely due to utilization of funds to reduce accounts payable in Q1 and Q2 of fiscal 2018, which deployed some of the funds from our Q1 2018 private placement. Cash used in investing activities was $1,217,999 (2017 - $640,750), due to increased investment on capital equipment and manufacturing facility upgrades, with the increase partly offset by lower investment in development of intangible assets. Accounting for all sources and uses, net cash provided by financing activities was $1,744,901 (2017 - $392,748), as a result of the company raising $3,137,283 (net of issue costs) in a private placement in the first quarter of fiscal 2018. These funds were used primarily to pay down operating bank debt, reduce accounts payable obligations, invest in capital equipment, and as working capital to support our growth. Net of all entries, cash decreased by $10,102 in 2018 (2017 - increase of $49,045).

Quarter Ending September 30, 2018 ("Q4")

Total Q4 revenue was $3,389,574, a 20% increase over last year's fourth quarter revenue of $2,813,282. Included were antigen and quality product revenues of $3,308,913, 22% higher than last year's fourth quarter, due largely to strong growth into Asian markets through our distribution partner and growth in sales to key customers. Revenue from royalties was $80,661 (2017 - $93,663).

Gross margin for Q4 was 41%, up from 39% in fiscal Q4 of 2017, but well below objectives. Gross margin varies with product mix but, as in Q2 and Q3 of 2018, yield-control issues with a conventionally-produced antigen meaningfully reduced gross margin (by about 10%). In dollar terms, Q4 gross margin increased by $289,330 versus Q4 of 2017 or by 27%. Those yield-control issues are now resolved and further measures to improve yields and margins are being undertaken across multiple products which should soon begin to show positive effects.

Operating expenses for Q4 decreased by $321,206 compared to 2017. This was primarily due to lower legal costs during the quarter, as in 2017 Microbix was incurring the costs of defending a patent lawsuit which was later settled in our favour. In addition, Microbix had lower interest costs due to lower use of bank credit facility in fiscal 2018. As outlined above the Company took a write-down during the quarter of $7,878,758 for its Lumisort assets. As a result, the Company experienced a net loss for the quarter of $8,185,894 (versus a net loss of $1,009,911 for 2017). However, Microbix generated improved operating results for Q4, with a net

Canadian Funds

FINANCIAL OVERVIEW (Continued)

Quarter Ending September 30, 2018 ("Q4") (Continued)

operating loss before one-time adjustments of $307,135, versus a loss of $917,673 in 2017.

Cash provided by operations (CFO) in Q4 was $249,815, compared to cash used of $447,812 in 2017. The impact of increased Q4 sales on CFO was blunted by the yield-control issue. As a result, the increased CFO in Q4 2018 was largely due to the reductions in accounts receivable and decreased inventory levels. Net cash used in investing activities was $77,148 (2017 – negative $26,157), due to continued investment in upgrading manufacturing equipment. Cash used in financing activities was $229,435 (2017 – provided by $312,168). Net of all entries, cash decreased by $11,798 in Q4 2018 (2017 - $109,486).

FINANCIAL HIGHLIGHTS

	As at Sept 30, 2018	As at Sept 30, 2017
Total Revenue	$ 12,510,558	$ 10,185,798
Gross Margin	5,369,436	4,812,373
SG&A Expenses	4,170,641	4,392,734
R&D Expense	1,089,746	994,584
Financial Expenses	851,857	924,589
Operating Loss before debt restructuring, settlement expenses and impairment of assets	(742,808)	(1,499,534)
Net Loss and Comprehensive Loss for the year	(8,621,566)	(3,780,088)
Cash Provided (Used) by Operating Activities	(537,005)	297,047
Cash	44,358	54,460
Accounts receivable	1,313,480	1,337,488
Total current assets	6,067,018	6,161,837
Total assets	19,310,067	26,437,611
Total current liabilities	4,161,417	6,516,249
Total liabilities	8,956,565	11,262,928
Total shareholders' equity	10,353,502	15,174,683
Current ratio	1.46	0.95
Debt to equity ratio	0.87	0.74

SELECTED QUARTERLY FINANCIAL INFORMATION

	Dec-31-16 $	Mar-31-17 $	Jun-30-17 $	Sep-30-17 $	Dec-31-17 $	Mar-31-18 $	Jun-30-18 $	Sep-30-18 $
Sales	1,952,502	2,646,649	2,773,365	2,813,282	2,885,567	3,000,193	3,235,224	3,389,574
Net Loss and Comprehensive Loss	(3,366,472)	107,649	38,646	(1,009,911)	(94,128)	(342,502)	958	(8,185,894)
Operating Loss before debt restructuring, settlement expenses and Impairment of assets	(525,406)	107,649	(164,104)	(917,673)	(94,128)	(342,502)	958	(307,136)

OUTLOOK

Microbix' primary business is the result of nearly three decades of experience manufacturing high quality viral and bacterial antigens – for use in the medical diagnostic testing industry. Its many antigen products have received widespread and longstanding acceptance by diagnostic test makers, with continuing growth in demand. Microbix antigens are now used by over 100 diagnostics manufacturers and are the critical biology inside tens of millions of medical tests for bacterial and viral diseases.

More recently, growth in demand for Microbix' antigens has been accelerating – as a number of diagnostics for infectious diseases important to public health are beginning to be adopted in the Asia-Pacific region. We are seeing the emergence of this Asian demand materialize in orders from our distribution partner for such markets, as well as from customers based in North America and Europe that are reporting growing sales into Asia. The long-term effect of this trend may be to take our potential market from being the population of ~700 million of North America and Western Europe to closer to the global population of 7.6 billion. As a leading global supplier of such vital antigens, Microbix believes it must prepare to fulfill such demand growth, lest unmet need spawn a new competitor.

A second line of business involves the use of antigens for purposes other than the large-scale manufacturing of medical test kits. This newer usage packages a very small amount of stabilized antigen into individual one milliliter vials. Such samples are used as tools to establish whether lab quality objectives are being met – for example to assess whether testing equipment is functioning properly and whether staff has been adequately trained. Such finished quality assessment products (QAPs™, pronounced as "caps") are a high value end-use of Microbix' antigens and there is a growing need for such products as regulators progressively tighten their surveillance of the competence of medical testing labs. A notable driver for such demand are the U.S. "CLIA" regulations, that are requiring labs to use quality products from qualified third parties across their ever-broadening portfolio of tests. Microbix now derives about 10% of its sales from providing QAPs to laboratory accreditation organizations and is building-out this business segment.

Due to the positive prospects of each of the two lines of its Antigens business, Microbix is reinvesting to better ensure that it can meet the expected growth in demand. Such work includes upgrading its manufacturing technologies, quality systems, processes and training, capacity and allocation of capacity, along with developing and launching new products. This has involved many steps to both de-bottleneck and de-risk our production processes, work that will be ongoing as Microbix continues to grow sales across our product lines. Much of the required investment was completed in the third quarter of fiscal 2018, as reflected in the news release entitled "Microbix Completes Multiple Facility Upgrades" dated May 8 that listed the 12 categories of upgrades we have completed.

Initial benefits of the manufacturing upgrades are already being seen in the sales growth of fiscal 2018. Management believes that it would have been very difficult to attain the rate of sales growth seen in fiscal 2018 (i.e., the 23% increase in sales over 2017), without such investment. Where Microbix has not yet seen the intended benefits, is in its gross margins and net profits.

Microbix is behind where it hoped to be on gross margins and profits – due largely, if not wholly, to two matters, (1) a yield-control issue with a leading conventionally-produced antigen product that led to considerable margin loss in Q2, Q3 and Q4 but has now been corrected, and (2) a delay in the acceptance of bioreactor-produced antigen by a key customer for that product – while it completes more lengthy real-time stability testing of kits made with such antigen that were unexpected by Microbix.

Both matters are being addressed and should not obstruct the drive to improve gross margins well above the 38-47% range seen across fiscal 2018. With ongoing sales growth in the range of 20% per year and improved margins in sight, it is believed that meaningful quarterly net earnings are not far off. Other very promising drivers should likewise not be ignored, starting with the QAPs

OUTLOOK (Continued)

products. The sales of QAPs to lab accreditation organizations (the PTDx™ line) are already well-established, at about 10% of overall sales. A sibling of PTDx, the PROCEEDx line, was hatched in early 2018 and has been targeted to researchers, test developers and laboratories for R&D, validation/verification of instruments, troubleshooting and operator training. PROCEEDx™ is now garnering accelerating interest from prospective customers and we are hopeful of material fiscal 2019 sales from this added QAPs product line. We will report on such progress as firm, material product orders are received from customers.

Headway is also being made with Kinlytic®. Microbix is actively working with a U.S. agent on outreaches to potential out-licensing and development partners. Management views progress as satisfactory at this stage and will likely update shareholders based on either of two process milestones, (i) executing a binding letter-of intent, or (ii) signing a definitive agreement. For LumiSort, it has been determined that the financial terms being discussed with livestock sex selection industry participants do not support the carrying value of the related assets. While LumiSort retains all of its technical and commercial merits, Microbix cannot afford to complete the commercialization of this asset without the involvement of such industry participants. Accordingly, the decision has been taken to provision for the full book value of LumiSort. With a zero value now assigned to LumiSort, any funds received from licensing the livestock-related or other applications of the technology should directly add to Microbix's earnings.

To summarize, the company is now growing sales at a rate of about 20% per year – faster than ever before. Gross margins and net profits are not yet where we want them to be, but plans are in place to meaningfully increase both over the coming quarters. The new QAPs products are gaining recognition from potential customers and should provide an additional source of high margin sales growth.

LIQUIDITY, CASH FLOWS AND CAPITAL RESOURCES

The consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards ("IFRS") on a going concern basis, which presumes the Company will continue operating for the foreseeable future and will be able to realize a return on its assets and discharge its liabilities and commitments in the normal course of business.

The Company has incurred historical losses resulting in an accumulated deficit of $35,698,403 as at September 30, 2018. Management continuously monitors the financial position of the Company with respect to working capital needs, as well as long-term capital requirements compared to the annual operating budget. Variances are highlighted and actions are taken to ensure the Company is appropriately capitalized.

Future Liquidity and Capital Needs

The Company primarily funds new product development activities and capital expenditures from profits earned by its business and, periodically from additional equity and/or debt.

Over the course of fiscal 2019, cash flow is expected to improve due to: 1) continued growth in antigen and quality product sales, 2) improvements in product pricing and other sales terms, 3) commencement of sales of higher margin product from the Company's bioreactor production process, and 4) other business development and financial initiatives. Management expects these developments will significantly improve the overall liquidity position, as the Company's plans come to full fruition.

The $3.1 million of net proceeds from Microbix' October private placement have been deployed to support growth plans and ongoing operations. Principal utilizations have been to purchase needed equipment and improve working capital. Further funds were allocated to reduce bank credit utilization, which may be redrawn as needed. Microbix will continue to monitor and manage its cash position, with the objective of anticipating and meeting all future liquidity and capital needs.

CONTRACTUAL OBLIGATIONS AND OTHER TRANSACTIONS

New Distribution Agreement

On January 12, 2017 Microbix signed a distribution agreement with Meridian Life Science, Inc. Under the terms of the Agreement, Meridian has received exclusive distribution rights to Microbix' branded antigen products for China, Hong Kong, Taiwan and Macau. Additionally, Microbix is providing bulk-finished product to Meridian to be sold under Meridian-label to customers in the Asia-Pacific region. Both companies will explore additional collaboration opportunities in the future. The relationship enables Microbix to leverage its expanding manufacturing capacity and Meridian's substantial commercial presence to better serve the region's diagnostic customers. Overall, the distribution collaboration has significantly expanded the business relationship between the two companies, and serves as a platform for the continued growth and expansion of their respective products and services.

Expanded Customer Agreement

On August 8, 2017 Microbix announced the execution of an expanded customer supply agreement. Under this agreement, Microbix is supplying an existing long-term customer with an increasing quantity of viral antigen products over the next five years, with the parties having the option to extend that term. Sales from the agreement are expected to total $25 million, with approximately $10 million to be incremental business. The agreement is with a major global diagnostics company with growing sales of infectious disease tests that require more antigen supply. The parties' obligations under the agreement are those customary for the supply and purchase of biological materials and its renewal and expansion provides Microbix with a secure base of business and underpins its decision to increase its production by expanding bioreactor capacity and other measures.

Settlement of Disputes

On December 30, 2016 Microbix reached a final settlement with Irvine Scientific Inc. over an ongoing dispute related to the sale of the Company's Water-for-Injection business to Irvine Scientific that occurred in December 2012. Irvine Scientific had filed a Notice of Arbitration with the American Arbitration Association in New York as stipulated in its original agreement with Microbix. Prior to initiation of the arbitration proceeding the companies agreed on final settlement terms, namely Microbix will pay Irvine a total amount of (U.S.) $192,500, which was fully paid by September 30, 2017.

Outstanding Share Capital

Share capital issued and outstanding as at September 30, 2018 was $33,912,460 for 96,972,705 common shares versus $31,299,416 for 84,704,257 common shares at September 30, 2017.

Related Party Transactions

On September 12, 2017, the Company issued two outstanding shareholder interest bearing Loans for total proceeds of $200,000. These loans were repaid on October 23, 2017. On March 28, 2018 the board of directors approved the repricing of 1,500,000 of warrants held by a director of the Company. These warrants were repriced from $0.55 to $0.32 and the expiry was extended by one year. The non-cash financial impact was $128,901, which is included in general and administrative expenses.

TREND INFORMATION

Historical spending patterns are no indication of future expenditures. Investment in the new products and technologies is at the discretion of management. The Company is not aware of any material trends related to its business that have not been discussed in this Management Discussion and Analysis dated December 20, 2018.

RISKS AND UNCERTAINTIES

The Company is exposed to business risks, both known and unknown, which may or may not affect its operations. Management works continuously to mitigate unacceptable risk, while still allowing the business to grow and prosper. These risk factors include the following:

A significant portion of Antigens Product sales are dependent on key clients, open borders, international transportation systems, and access to raw materials.

A significant share of the Company's Antigens products sales are sold to a few key customers globally. These products contributed a significant share of the revenues. The loss of a key customer, or restrictions on export, import, or international transportation of its products, raw materials or insufficient marketing resources, could materially impact revenue and profitability.

Environmental, safety and other regulatory

Microbix' research and manufacturing operations involves potentially hazardous materials. The Company takes extensive precautions to appropriately manage these materials as regulated by the applicable environmental and safety authorities. Changes in environmental and safety legislation may limit the Company's activities or increase costs. An environmental accident could adversely impact its operations. Microbix' antigen products are considered a production ingredient and not directly regulated by governments in Canada or other jurisdictions. Commercialization of certain quality assessment products require approval of regulatory agencies such as the FDA, in which case Microbix will not receive revenue until regulatory approval is obtained.

Re-Launch of Kinlytic® urokinase

Microbix' goal is to re-launch this biologic clot-buster drug into the United States market. The Company has consulted with the United States Food and Drug Administration about the viability of its re-launch plans and secured quotations for major project tasks from third-party service providers to independently validate budgets and timelines. Outreach has been undertaken to secure project funding from development partners on the basis of the resulting re-launch plans. There is no assurance the Company will be successful in this endeavour.

Quality Assessment Products in development

The Company has multiple quality assessment products under development, with the goal of building its sales of this category of product. There is no assurance that these development activities will result in the completion of new commercial products. If the Company is unable to develop and commercialize products, it will be unable to recover its related product development investments.

Product commercialization requires strategic relationships

To commercialize large market products in development, Microbix may need to establish strategic partnerships, joint ventures or licensing relationships with pharmaceutical, biotechnology or animal genetics companies. It is possible the Company may be unable to negotiate mutually acceptable terms.

Operating and capital requirements

Microbix seeks to earn a profit on the sale of its Antigens Products, which is a major source of funding for its research and development activities. The Company believes that cash generated from operations is sufficient to meet normal operating and capital requirements. However, the Company may need to raise additional funds, from time to time for several reasons including, to expand production capacity, to advance its current research and development programs, to support various collaboration initiatives with third parties, to underwrite the cost of filing, prosecuting and enforcing patents and other intellectual property rights, to invest in acquisitions, new technologies and new market developments. Additional financing may not be available, and even if available, may not be offered on acceptable terms.

RISKS AND UNCERTAINTIES (Continued)

Future success may depend on successfully commercializing new products or technologies

In the nearer term, Microbix must maintain and grow its existing product sales. To survive and prosper over the longer term, Microbix may need to commercialize new products or technologies. Such work is inherently uncertain and there is no guarantee that Microbix will be successful with its efforts.

Failure to obtain and protect intellectual property could adversely affect business

Microbix' future success depends, in part, on its ability to obtain patents, or licenses to patents, maintain trade secret protection and enforce its rights against others. The Company's intellectual property includes trade secrets and know-how that may not be protected by patents. There is no assurance that the Company will be able to protect its trade know-how. To help protect its intellectual property, the Company requires employees, consultants, advisors and collaborators to enter into confidentiality agreements. However, these agreements may not adequately protect trade secrets, know-how or other proprietary information in the event of any unauthorized use or disclosure. Protection of intellectual property may also entail prosecuting claims against others who the Company believes are infringing its rights. Involvement in intellectual property litigation could result in significant costs, adversely affecting the development of products or sales of the challenged product, or intellectual property, and divert the efforts of its scientific and management personnel, whether or not such litigation is resolved in the Company's favour.

Microbix will continue to face significant competition

Competition from life sciences companies, and academic and research institutions is significant. Many competitors have substantially greater resources and general capabilities in the areas of scientific and product development, legal review, manufacturing, sales and marketing, and financial support than Microbix. While the Company continues to expand its technological, commercial, legal and financial capabilities in order to remain competitive, Microbix' competitors may also be making significant investments in all of these areas, which could make it more difficult for Microbix to commercialize its products and technologies.

FINANCIAL RISK MANAGEMENT

The primary risks affecting the Company are summarized below and have not changed during the fiscal year. The list does not cover all risks, nor is there an assurance that the strategy of management to mitigate the risks is sufficient to eliminate the risk.

Credit risk:
The Company's customers are primarily large multi-national companies with very high quality credit ratings. Given this track record, management perceives the credit risk to be low. Typically the outstanding accounts receivable balance is relatively concentrated with a few large customers representing the majority of the value. For the year ended September 30, 2018, five customers accounted for 66% (2017 - five customers accounted for 63%) of the outstanding balance. The Company has had minimal bad debts over the past several years and accordingly management has recorded an allowance of $10,000 (2017 - $10,000).

Currency risk:
The Company is exposed to currency risk given its global customer base. Over 90% of its revenue is denominated in either U.S. dollars or Euros. The Company does not use financial instruments to hedge this currency risk. At September 30, 2018, the significant balances, quoted in Canadian dollars, held in foreign currencies are:

	US dollars		**Euros**	
	2018	2017	2018	2017
Cash	**$ 42,557**	$ 52,902	**247**	5
Accounts receivable	**652,429**	458,941	**314,402**	413,117
Accounts payable and accrued liabilities	**$ 204,696**	$ 406,000	**-**	11.987

Based upon 2018 results, the impact of a 5% increase in the U.S. dollar against the Canadian dollar would result in an increase in annual U.S. dollar based revenue of approximately $330,400 Cdn. The impact of a 5% increase in the Euro against the Canadian dollar would result in an increase in annual Euro based revenue of approximately $271,500. Correspondingly, the impact of a 5% decrease in the U.S. dollar against the Canadian dollar would result in a loss in annual U.S. dollar based revenue of approximately $330,400 Cdn. The impact of a 5% decrease in the Euro against the Canadian dollar would result in a loss in annual Euro-based revenue of approximately $271,500.

Liquidity risk
Liquidity risk measures the Company's ability to meet its financial obligations when they fall due. To manage this situation, the Company projects and monitors its cash requirements to accommodate changes in liquidity needs. In addition, during fiscal 2017 the Company announced that it has arranged a secured revolving credit facility with The Toronto-Dominion Bank ("TD Bank") and Export Development Canada ("EDC"). The credit facility is being used to fund the Company's need for working capital to grow its existing business. This facility is helping to satisfy the Company's liquidity needs and to manage the liquidity risk going forward.

Interest rate risk
Financial instruments that potentially subject the Company to interest rate risk include those assets and liabilities with a variable interest rate. Exposure to interest rate risk is primarily on the BDC debt that has a variable rate pegged to the bank rate. The rate can be fixed, if the outlook indicates interest rates will move higher. The only other variable debt the Company has is the $1,500,000 line of credit that bears interest at the bank's prime lending rate plus 2.25%. A 1% increase in the bank rate would cost the Company approximately $30,000 per year for BDC and about $15,000 on the line of credit usage if it were fully used throughout the fiscal year.

FINANCIAL RISK MANAGEMENT (Continued)

Market risk

Market risk reflects changes in pricing for both Antigens products and raw materials based on supply and demand criteria; also market forces can affect foreign currency exchange rates as well as interest rates which could affect the Company's financial performance or the value of its financial instruments. Microbix products are valuable components in our customers' products and cannot be easily replaced. The Company works closely with customers to ensure its products meet their specific criteria.

Fair value

The fair value of a financial instrument is approximated by the consideration that would be agreed to in an arm's length transaction between willing parties and through appropriate valuation methods, but considerable judgement is required for the Company to determine the value. The actual amount that could be realized in a current market exchange could be different than the estimated value.

The fair values of financial instruments included in current assets and current liabilities approximate their carrying values due to their short-term nature.

The fair value of the long-term debt is based on rates currently available for items with similar terms and maturities. The convertible and non-convertible debenture fair values are not readily determinable as the convertible debentures have been issued to shareholders of the Company. The fair values of financial instruments in other long-term liabilities approximate their carrying values as they are recorded at the net present values of their future cash flows, using an appropriate discount rate.

CRITICAL ACCOUNTING ESTIMATES

The preparation of these consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses. The Company's audited consolidated financial statements are prepared in accordance with IFRS and the reporting currency is Canadian dollars. On an on-going basis, management bases its estimates on historical and other experience and assumptions, which it believes are reasonable in the circumstances. The significant accounting policies that the Company believes are the most critical in fully understanding and evaluating the reported financial results include:

Intangible Assets

Intangible assets include technology costs, patents, trademarks and licenses. Each is recorded at cost and amortized on a straight-line basis over the term of the agreements. Intangible assets with indefinite lives are not amortized but are assessed for impairment on an annual basis.

Impairment of Long-lived Assets

The Company reviews the carrying value of non-financial assets with definite lives for potential impairment when events or changes in circumstances indicate that the carrying amount may not be recoverable. The carrying value of non-financial assets with definite lives but are not ready for use, are assessed at least annually for impairment based on the impairment test on cash-generating units (CGUs). The impairment test on CGUs is carried out by comparing the carrying amount of the CGU and its recoverable amount. The recoverable amount of a CGU is the higher of fair value less costs to sell and its value in use. This complex valuation process entails the use of methods such as the discounted cash method which requires numerous assumptions to estimate future cash flows. The recoverable amount is impacted significantly by the discount rate selected to be used in the discounted cash flow model, as well as the quantum and timing of risk-adjusted future cash flows and the growth rate used for the extrapolation. The impairment loss is calculated as the difference between the fair value of the asset and its carrying value.

CRITICAL ACCOUNTING ESTIMATES (Continued)

Non-Convertible and Convertible Debentures

Management determines the fair value of the debenture using valuation techniques. Those techniques are significantly affected by the estimated assumptions used, including discount rates, expected life and estimates of future cash flows.

Deferred income taxes

Deferred income tax assets and liabilities are recognized for the estimated income tax consequences attributable to differences between financial statement carrying amounts of assets and liabilities and their respective income tax bases. Deferred income tax assets and liabilities are measured using tax rates expected to be in effect when the temporary differences are expected to be recovered or settled. The effects of changes in income tax rates are reflected in future income tax assets and liabilities in the year that the rate changes are substantively enacted.

Share-based payments

The Company applies the fair value method of accounting for stock-based compensation for awards granted to officers, directors, employees and consultants of the Company. The fair value of the award at the time of granting is determined using the Black-Scholes option pricing model, and recognized as a compensation expense on a straight- line basis over the vesting period with an offsetting amount recorded to contributed surplus. The amount of the compensation cost recognized at any date at least equals the value of the portion of the options vested at that date. When stock options are exercised, the consideration paid by employees or directors, together with the related amount in contributed surplus, is credited to capital stock. When an employee leaves the Company, vested options must be exercised within 90 days, or the options expire. Any options that are unvested are reversed in the period that the employee leaves.

FINANCIAL INSTRUMENTS

The fair value of a financial instrument is approximated by the consideration that would be agreed to in an arm's length transaction between willing parties and through appropriate valuation methods, but considerable judgment is required for the Company to determine the value. The actual amount that could be realized in a current market exchange could be different than the estimated value.

The carrying amounts of cash and cash equivalents, accounts receivable, bank indebtedness and accounts payable and accrued liabilities approximate fair value due to the short-term maturities of these instruments. Based on available market information, the fair value of the obligation under capital lease approximates its carrying value.

The fair value of the long-term debt is based on rates currently available for items with similar terms and maturities. The fair value of the liability for each convertible debenture has been calculated and the residual is accounted for in equity. The Company does not have any off balance sheet financial instruments.

Disclosure Controls

The Chief Executive Officer and the Chief Financial Officer have evaluated the effectiveness of the Company's disclosure controls and procedures, as defined in the National Instrument 52-109 Certification of Disclosure in Issuer's Annual Filings (NI 52-109F1). As at September 30, 2018, management has concluded that the disclosure controls are effective in providing reasonable assurance that information required to be disclosed in the Company's reports is recorded, processed summarized and reported within the time periods specified in the Canadian Securities Administrator's rules and forms.

Internal Controls Over Financial Reporting

The design of internal controls over financial reporting ("ICFR") within the company is a management responsibility to provide reasonable assurance that the reliability of financial reporting and that the preparation of financial statements for external purposes is in accordance with generally accepted

FINANCIAL INSTRUMENTS (Continued)

Internal Controls Over Financial Reporting (Continued)

accounting principles of IFRS. While the CEO and CFO believe that the internal controls are adequate to provide the above information, the process to evaluate and document all policies and procedures that could impact financial reporting is continuously reviewed with consultation with the Audit Committee. Shareholders should be aware that Microbix is a small company without the department resources associated with larger firms. Management is using the Committee of Sponsoring Organization of the Treadway Commission ("COSO"). Framework and has concluded that the Internal Control over Financial Reporting ("ICFR") as defined in NI 52-109 is effective as at the period ended September 30, 2018.

Examination by the Chief Executive Officer and the Chief Financial Officer showed that there were no changes to the internal controls over financial reporting during the period ended September 30, 2018 that have materially affected, or are reasonably thought to materially affect, the internal control over financial reporting.

ACCOUNTING PRONOUNCEMENTS ISSUED BUT NOT YET APPLIED

Certain new standards, interpretations, amendments and improvements to existing standards were issued by the International Accounting Standards Board ("IASB") or IFRS Interpretation Committee ("IFRIC") that are mandatory at certain dates or later. Management is still assessing the effects of the pronouncements on the Company. The standards impacted that may be applicable to the Company are following:

IFRS 9 - Financial Instruments

IFRS 9, Financial Instruments ("IFRS") was issued in final form by the IASB in July 2014 and will replace IAS 39 Financial Instruments: Recognition and Measurement. IFRS 9 uses a single approach to determine whether a financial asset is measured at amortized cost or fair value, replacing the multiple rules in IAS 39. The approach in IFRS 9 is based on how an entity manages its financial instruments in the context of its business model and the contractual cash flow characteristics of the financial assets.

Most requirements in IAS 39 for classification and measurement of financial liabilities were carried forward unchanged to IFRS 9. The new standard also requires a single impairment method be used, replacing the multiple impairment methods in IAS 39. IFRS 9 also includes requirements relating to a new hedge accounting model, which represents a substantial overhaul of hedge accounting that will allow entities to better reflect their risk management activities in the financial statements.

The most significant improvements apply to those that hedge non-financial risk, and so these improvements are expected to be of particular interest to non-financial institutions. In addition, a single, forward-looking expected loss impairment model is introduced, which will require more timely recognition of expected credit losses. IFRS 9 is effective for annual periods beginning on or after January 1, 2018. Earlier application is permitted.

The Company has assessed the impact of IFRS 9 on the consolidated financial statements and has determined that the adoption of IFRS 9 will enhance disclosures, but will not have a material impact on the consolidated financial statements.

IFRS 15, Revenue from Contracts with Customers

IFRS 15, Revenue from Contracts with Customers ("IFRS 15") was issued by the IASB in May 2014. The core principle of the new standard is for companies to recognize revenue to depict the transfer of goods or services to customers in amounts that reflect the consideration to which the company expects to be entitled in exchange for those goods or services. The new standard will also result in enhanced disclosures about revenue, provide guidance for transactions that were not previously addressed comprehensively (for example, service revenue and contract modifications) and improve guidance for multiple-element arrangements. The new standard is effective for annual periods beginning on or after January 1, 2018. Earlier application is permitted. IFRS 15 supersedes the following standards: IAS 11 Construction Contracts, IAS 18 Revenue, IFRIC 13 Customer Loyalty Programmes, IFRIC 15 Agreements for the Construction of Real

ACCOUNTING PRONOUNCEMENTS ISSUED BUT NOT YET APPLIED (Continued)

IFRS 15, Revenue from Contracts with Customers (Continued)

Estate, IFRIC 18 Transfers of Assets from Customers, and SIC-31 Revenue - Barter Transactions Involving Advertising Services.

The Company has not identified any significant differences in the timing or recognition of revenues as a result of IFRS 15. The Company continues to assess the impact of required disclosure in the notes to the consolidated financial statements.

IFRS 16, Leases

On January 13, 2016, the IASB issued IFRS 16, which outlines requirements for lessees to recognize assets and liabilities for most leases. Lessees are required to recognize the lease liability for the obligations to make lease payments and a right-of-use asset for the right to use the underlying asset for the lease term. Lease liability is measured at the present value of lease payments to be made over the term of the lease. The right-of-use asset is initially measured at the amount of the lease liability and adjusted for prepayments, direct costs and incentives received.

The new standard will be effective for annual periods beginning on or after January 1, 2019. Early recognition is permitted, provided the new revenue standard, IFRS 15 Revenue from Contracts with Customers, has been applied, or is applied at the same date as IFRS 16. The Company has commenced a review process to assess any impact on its current revenue recognition policies and reporting processes.

IFRS 2, Share-based Payment ("IFRS 2")

In June 2016, the IASB issued final amendments to IFRS 2, clarifying how to account for certain types of share-based payment transactions. The amendments, which were developed through the IFRS Interpretations Committee, provide requirements on the accounting for: (i) the effect of vesting and non-vesting conditions on the measurement of cash-settled share-based payments; (ii) share-based payment transactions with a net settlement feature for withholding tax obligations; and (iii) a modification to the terms and conditions of a share-based payment that changes the classifications of the transaction from cash-settled to equity-settled. The effective date for this standard is for reporting periods beginning on or after January 1, 2018, with earlier application permitted.

The Company has completed the review process to assess the impact and application of the aforementioned amendments and has determined it will have no impact on the Company.

IFRIC 22, Foreign Currency Transactions and Advance Consideration

In 2016, the IASB issued IFRIC Interpretation 22, Foreign Currency Transactions and Advance Consideration ("IFRIC 22") which provides requirements about which exchange rate to use in reporting foreign currency transactions (such as revenue transactions) when payment is made or received in advance. IFRIC 22 is effective for annual periods beginning on or after January 1, 2018, with earlier adoption permitted. On initial application, entities have the option to apply either retrospectively or prospectively. The Company is in the process of evaluating the impact of adopting these amendments on the Company's consolidated financial statements.