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, 2019, 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 antigens and quality assessment products 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 19, 2019.

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 in two categories, (1) antigens and (2) quality assessment products (QAPs™).

In the context of Microbix's business, antigens are purified and inactivated bacteria and viruses, which are used in the immunoassay format of medical tests to assess exposure to, or immunity from, those pathogens. QAPs are inactivated and stabilized samples of a pathogen, that are created to resemble patient samples in order to support one or more of (i) the proficiency testing of clinical labs, (ii) test development, instrument validation and technician training, or (iii) the quality management of patient tests by clinical laboratories. Microbix' antigens and QAPs 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 products or technologies. Currently it has two; (1) Kinlytic® urokinase, a biologic thrombolytic drug (used to dissolve blood clots), and (2) LumiSort™ cell-sorting, a technology for ultra-rapid and efficient sorting of particles that can be used to enrich cell populations of interest.

Revenue from the antigens and QAPs business (Antigens & QAPs) is expected to continue growing for the foreseeable future. Antigen sales growth will be largely driven by certain public health tests starting to be adopted in the Asia Pacific region. QAPs sales growth will be driven by Microbix's creation of new value-added, branded and proprietary products and by increasing European and American regulation of clinical laboratories. Resulting sales are expected to provide free cash flow to cover operating and debt service costs, and funding for business initiatives that leverage Microbix's expertise.

COMPANY OVERVIEW (Continued)

The Company owns and operates a biologicals 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 in a leased building located at 235 Watline Avenue, Mississauga, Ontario.

FINANCIAL OVERVIEW

Year Ending September 30, 2019 ("2019")

2019 revenue was $13,412,341, a 7% increase from 2018 revenues of $12,510,558. Included were antigen and QAPs revenues of $13,067,727, 7% higher than 2018. Sales were strong across multiple customers in North America and Europe and several of our key products. Revenue from royalties were $344,614 (2018 - $319,201).

Gross margin for the year was 49%, up from 43% in fiscal 2018, due to resolution of 2018 antigen yield control issues and changes to overall product mix that had a positive impact on margins.

Operating expenses increased by 6% from 2018, primarily a result of increased investment in sales and marketing, and $135,000 of financing expenses in fiscal 2019 which had been capitalized in prior years.

Stronger sales and gross margins in 2019 led to an operating income of $43,681 versus an operating loss before impairment of assets of $742,808 in 2018 and a net income of $31,918 in 2019 versus a net loss of $8,621,566 in 2018 (following a large one-time impairment charge). Cash provided by operations ("CFO") was $44,368, compared to cash used of $537,005 in 2018.

Quarter Ending September 30, 2019 ("Q4")

Total Q4 revenue was $3,587,285, a 6% increase from 2018 fourth quarter revenue of $3,389,574. Included were antigen and QAPs revenues of $3,503,268 (2018 - $3,308,913) and revenue from royalties were $84,017 (2018 - $80,661). Q4 sales were principally to antigen customers in North American and Europe and were across multiple customers and key products.

Gross margin for Q4 was 44%, up from 41% in Q4 of fiscal 2018. This increase was due to the mix of products sold in Q4 and the year-over-year improvement in margins of one of our key antigen products. Revenues from bioreactor-produced antigen were lower than expected, due to an on-going delay in the conversion of a key customer, resulting in most sales of that antigen continuing to be from conventional methods in Q4.

Operating expenses for Q4 increased by $22,286 from 2018, due to further investment in sales and marketing and debenture interest costs that were previously capitalized in 2018.

As a result of all the foregoing, a net loss of $48,816 was reported in Q4 versus a net loss of $8,185,894 (or a net loss of $307,136 without the one-time impairment charge) in Q4 2018. Cash provided by operations ("CFO") in Q4 was $574,570 (primarily due to higher gross margins for the quarter), compared to cash provided of $349,783 in 2018.

Canadian Funds

Financial Highlights
as at and for the year ended

	Sept 30, 2019	Sept 30, 2018
Revenue	$ 13,412,341	$ 12,510,558
Gross Margin	6,547,447	5,369,436
Sales, General and Administrative Expenses	4,395,496	4,170,641
Research and Development Expense	1,042,192	1,089,746
Financial Expenses	1,066,078	851,857
Operating Income (Loss) before impairment of assets	43,681	(742,808)
Income (Loss) and Comprehensive Income (Loss)	31,918	(8,621,566)
Net Income (Loss) per share	0.000	(0.090)
Cash Provided (Used) by Operating Activities	44,368	(537,005)
Cash	95,571	44,358
Accounts receivable	1,709,470	1,313,480
Total current assets	6,452,308	6,067,018
Total assets	19,629,573	19,310,067
Total current liabilities	4,765,895	4,161,417
Total liabilities	9,092,165	8,956,565
Total shareholders' equity	10,537,408	10,353,502
Current ratio	1.35	1.46
Debt to equity ratio	0.86	0.87

SELECTED QUARTERLY FINANCIAL INFORMATION

	Dec-31-17 $	Mar-31-18 $	Jun-30-18 $	Sep-30-18 $	Dec-31-18 $	Mar-31-19 $	Jun-30-19 $	Sep-30-19 $
Revenue	2,885,567	3,000,193	3,235,224	3,389,574	2,460,812	4,253,629	3,110,615	3,587,285
Net Income (Loss) and Comprehensive Income (Loss)	(94,128)	(342,502)	958	(8,185,894)	(119,296)	391,352	(191,322)	(48,816)
Operating Income (Loss) before debt restructuring, settlement expenses and Impairment of assets	(94,128)	(342,502)	958	(307,136)	(119,296)	482,037	(191,322)	(127,738)

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 "immunoassay" 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 stronger to end customers in both established and emerging markets. Much of that growth is believed to be due to a number of diagnostics for infectious diseases important to public health beginning to be adopted in the Asia-Pacific region. In fiscal 2018, we saw 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 native antigens that has created and validated leading-edge production techniques, Microbix believes it is now prepared to fulfill such demand growth.

Microbix's emerging QAPs business involves the use of antigens for purposes beyond the large-scale manufacturing of medical test kits. This newer usage packages a very small amount of stabilized and inactivated bacteria or virus into individual one milliliter vials or dried onto swabs. Such samples are used as tools to establish whether the quality objectives of clinical laboratories 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 and ISO 15189 standards, 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 to test and instrument makers, and to clinical laboratories directly.

Due to the positive prospects of each of the above two lines of its 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. In fiscal 2018 and 2019, multiple upgrades to facilities were completed and further investments will be made in infrastructure going forward. Additionally, Microbix will be investing in people – with efforts to enhance training, career progression and retention.

Initial benefits of the manufacturing upgrades were seen in the sales of fiscal 2018 and 2019, which demonstrated an annual compound growth rate of 15% over the two year period. In fiscal 2020, Microbix aims for continuing sales growth alongside material improvement to its percentage gross margins, with margin gains being driven by the use of new production technologies and a growing proportion of higher margin products.

Further progress on enhancing production capabilities are expected to result from the $2.75 million contribution agreement with FedDev Ontario, announced on July 30, 2019. Additionally, on August 1, Microbix confirmed the timetable of conversion of a major antigen product into its bioreactor technology and, over the month of September, approvals to sell innovative new QAPs to clinical laboratories in the European Union and the United States.

OUTLOOK (Continued)

Going forward, Microbix is continuously working to improve its percentage gross margin while also growing its sales of both antigens and QAPs. Percentage gross margin improvements should be achievable by way of an increasing proportion of bioreactor-driven antigen sales, improving antigen yields on a broader basis and larger sales of quality products. Achievement of sales and gross margin goals is expected to lead to meaningful quarterly net earnings. Quarterly reporting will update shareholders on progress with such operational goals.

Headway is also being made with Kinlytic® urokinase. Microbix has been actively working with a U.S. agent on outreaches to potential out-licensing and development partners. Multiple potential partners are now under confidentiality agreements and Microbix is engaged with assisting such parties in conducting due diligence on its "Data Room" materials. 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.

To summarize, the company continues to target double-digit annual percentage growth in sales, while concurrently expanding gross margins and net earnings. Sustainable growth and consistent profitability are core goals for Microbix. Those objectives should be attainable based on increasing demand for antigens, implementation of innovative antigen production methods, the launch of new QAPs product lines and successful partnering of Kinlytic. It is intended for success with such initiatives to drive share price appreciation.

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 $35,666,485 as at September 30, 2019. 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 2020, cash flow is expected to improve due to: 1) continued growth in antigen and quality product sales, 2) improvements in product pricing or other sales terms, 3) commencement of sales of higher percentage gross 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 fruition.

Microbix will continue to monitor and manage its cash position, with the objective of anticipating and meeting all future liquidity and capital needs.

LIQUIDITY, CASH FLOWS AND CAPITAL RESOURCES (Continued)

Related Party Transactions

On March 28, 2018 the board of directors approved the repricing of 1,500,000 of warrants held by a director of the Company, in lieu of other director compensation. 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.

Outstanding Share Capital

Share capital issued and outstanding as at September 30, 2019 and September 30, 2018 was $33,912,460 for 96,972,705 common shares.

TREND INFORMATION

Historical spending patterns are no indication of future expenditures. Investment in the new products and technologies is at the discretion of management and the board of directors. 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 19, 2019.

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.

RISKS AND UNCERTAINTIES (Continued)

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 & QAPs, 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.

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 or securing its freedom to operate relative to the rights of other parties. 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 period ended September 30, 2019, five customers accounted for 78% (2018 - five customers accounted for 66%) of the outstanding balance. The Company has had minimal bad debts over the past several years and accordingly management has recorded an allowance of $25,625 (2018- $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, 2019, the significant balances, quoted in Canadian dollars, held in foreign currencies are:

	US dollars		Euros	
	2019	2018	2019	2018
Cash	**$ 88,820**	$ 42,557	**$ 5,223**	$ 247
Accounts receivable	**797,352**	652,429	**591,454**	314,402
Accounts payable	**197,551**	204,696	**-**	-

Based upon 2019 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 $354,100 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 $298,700. 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 $354,100 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 $298,700.

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 $2,000,000 line of credit that bears interest at the bank's prime lending rate plus 2.0%. A 1% increase in the bank rate would cost the Company approximately $30,000 per year for BDC and about $20,000 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 & QAPs 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 or useful life of the asset. Amortization commences when the intangible asset is available for use. Intangibles with definite lives but not yet available for use are assessed at least annually for impairment or more frequently if there are indicators of impairment.

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, 2019, 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, 2019.

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, 2019 that have materially affected, or are reasonably thought to materially affect, the internal control over financial reporting.

IMPACT OF NEW ACCOUNTING STANDARDS

Certain new standards, interpretations, amendments and improvements to existing standards were issued by the 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 described below.

NEW ACCOUNTING PRONOUNCEMENTS ADOPTED IN FISCAL 2019

The Company has adopted new amendments to the following accounting standards effective for its interim and annual consolidated financial statements commencing October 1, 2018. The effect of these pronouncements on the Company's results and operations are described below.

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

In September 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.

IFRS 9 - Financial instruments ("IFRS 9")

The Company has adopted IFRS 9, effective October 1, 2018 on a modified retrospective basis, in accordance with the transitional provisions of IFRS 9. As such, comparative figures have not been restated. IFRS 9 provides a revised model for recognition, measurement and impairment of financial instruments and includes a new model for hedge accounting aligning the accounting treatment with risk management activities.

As detailed below, the Company has changed its accounting policy for financial instruments retrospectively, except where described below.

NEW ACCOUNTING PRONOUNCEMENTS ADOPTED IN FISCAL 2019 (Continued)

IFRS 9 - Financial instruments ("IFRS 9") (Continued)

Financial assets

IFRS 9 includes a revised model for classifying financial assets, which results in classification according to a financial instrument's contractual cash flow characteristics and the business models under which they are held. At initial recognition, financial assets are measured at fair value. Under the IFRS 9 model for classification of financial assets, the Company has classified and measured its financial assets as described below:

Cash and cash equivalents measured at fair value through profit or loss under International Accounting Standard 39 - Financial Instruments: Recognition and Measurement ("IAS 39") continue to be measured as such under IFRS 9.

Accounts receivable classified as financial assets continue to be measured at amortized cost under IFRS 9.

The adoption of IFRS 9 did not result in a change in the carrying values of any of the Company's financial assets on the transition date.

Financial liabilities

Financial liabilities are recognized initially at fair value, and in the case of financial liabilities, not subsequently measured at fair value, net of directly attributable transaction costs. Financial liabilities are derecognized when the obligation specified in the contract is discharged, cancelled, or expired. For financial liabilities, IFRS 9 retains most of the IAS 39 requirements and, since the Company does not have any financial liabilities designated at fair value through profit or loss, the adoption of IFRS 9 did not impact the Company's accounting policies for financial liabilities. Accounts payable and accrued liabilities, interest payable, and long-term debt are classified as financial liabilities to be subsequently measured at amortized cost.

The adoption of IFRS 9 did not result in a change in the carrying values of any of the Company's financial liabilities on the transition date.

Expected credit loss impairment model

IFRS 9 requires a forward-looking expected credit loss impairment ("ECL") model as opposed to an incurred credit loss model under IAS 39. As the Company's financial assets are substantially made up of trade receivables, the Company has opted to use the simplified approach for measuring the loss allowance at an amount equal to lifetime ECL. The simplified approach does not require the tracking of changes in credit risk, but instead requires the recognition of lifetime ECLs at all times. Lifetime ECL represents the ECL that would result from all possible default events over the expected life of a financial instrument. The adoption of the ECL model did not have a significant impact on the Company's financial statements, and did not result in a transitional adjustment.

Financial instruments

The Company's financial assets and liabilities (financial instruments) include cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities and long-term debt financial instruments. All financial instruments are recorded at fair value at recognition. Subsequent to initial recognition, financial instruments classified as accounts receivables, accounts payable and accrued liabilities, and long-term debt are measured at amortized cost using the effective interest method. Other financial assets and liabilities are recorded at fair value subsequent to initial recognition.

IFRS 15, Revenue from Contracts with Customers ("IFRS 15")

Effective October 1, 2018, the Company adopted IFRS 15. IFRS 15 supersedes International Accounting Standard 18, Revenue ("IAS 18"). IFRS 15 establishes a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers. Under IFRS 15, revenue is recognized at an amount that reflects the consideration to which an entity expects to be entitled in exchange for transferring

NEW ACCOUNTING PRONOUNCEMENTS ADOPTED IN FISCAL 2019 (Continued)

IFRS 15, Revenue from Contracts with Customers ("IFRS 15") (Continued)

goods or services to a customer. The principles in IFRS 15 provide a more structured approach to measuring and recognizing revenue.

The Company has elected to use the modified retrospective method, which requires the cumulative effect of initially applying the Standard to be recognized at the date of initial application, which is October 1, 2018, and that the financial information previously presented for the year ended September 30, 2018 would remain unchanged. The transition to the new standard had no material impact on the measurement and recognition of revenue in the current or prior periods.

The Company has elected to make use of the following practical expedients:

(i) Completed contracts under IAS 18 before the date of transition have not been reassessed.
(ii) Financing components are not considered in the Company's transaction price as the time gap between payment and delivery of goods and services is expected to be less than one year.
(iii) Contract costs incurred related to contracts with an amortization period of less than one year have been expensed as incurred.

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 has elected to adopt IFRIC 22 prospectively beginning on October 1, 2018. The adoption of the standard has had no significant impact on the Company's unaudited interim consolidated financial statements for the three-month ended period September 30, 2019.

ACCOUNTING PRONOUNCEMENTS ISSUED BUT NOT YET APPLIED

IFRS 16, Leases ("IFRS 16")

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. The Company is currently assessing the impact of the new interpretation on its consolidated financial statements.